

STATE DEVELOPMENT REPORT JAMMU AND KASHMIR

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FOREWORD

In order to provide an independent analytical framework to State Governments, Planning Commission has undertaken the preparation of State Development Reports (SDRs), which would serve as credible documents to help set the agenda for economic growth of States in the perspective of national planning. Major development issues need State-wise analysis and resolution for policies and programmes to have the desired impact on national development.

The preparation of State Development Reports is a recent initiative taken by the Planning Commission to foster a sense of partnership between the Centre and the States to jointly assess the developmental alternatives available keeping in view the financial, human and material resources and the felt needs of the people. This exercise has also underlined the need to take a re-look at governance issues and policy options which will enable the States to provide a better quality of life to their people.

Such a Report for J&K has specific relevance at this juncture when the State, after witnessing a long spell of disturbance, has begun to move towards revival of economic activity. I note with satisfaction that the Report contains a critical analysis of facts and suggests policy directions.

I hope that the State Development Report for J&K would provide useful inputs to policy makers in the State and Central Governments engaged in directing the development process in the State. Planning Commission's endeavour would be rewarded if the Report helps the State to achieve a higher growth path with more equitable distribution of benefits to the people of Jammu & Kashmir.


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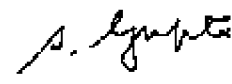
INTRODUCTION

Under a recent initiative, Planning Commission has started preparing State specific Development Reports. The objective is to publish credible documents at the State level with identification of critical developmental issues and corrective policy suggestions mainly by experts from specialized institutes. The Reports would be of use to the Centre and State machineries engaged in steering the plan process of the State on a higher and equitable growth path.

A Core Committee under the chairmanship of Shri Kamaluddin Ahmed, Ex-Member, Planning Commission worked out the modalities for preparing the State Development Report for Jammu & Kashmir and availed of the expertise of the Institute of Social Sciences, New Delhi and the Department of Management Studies, University of Kashmir, Srinagar. The Government of J&K was also associated in the process. Major part of the job was completed during the tenure of the Core Committee under the chairmanship of Shri Kamaluddin Ahmed.

The SDR for J&K is a well-documented paper with analysis of development performance of the State Government, highlights of the potential sectors of the state economy and policy suggestions for attaining a more proactive development scenario in J&K. The report would be extremely useful at this juncture when the Government of J&K is shaping its operative Annual Plans for realizing an envisaged annual growth rate of 6.27% during the Tenth Plan.

I would like to appreciate Shri B.K. Goswami, Chief Coordinator, experts from the Institute of Social Sciences, New Delhi and the Department of Management Studies, University of Kashmir, Srinagar for their effective contribution in preparing the Report. I am thankful to the Government of J&K for rendering full cooperation and support to the team of experts involved in preparation of the Report.


(S.P. Gupta)

Acknowledgements

I thank the Planning Commission for entrusting the Institute of Social Sciences with the task of preparing the State Development Report of Jammu and Kashmir.

I am grateful to Mr. B.K. Goswami for his overall guidance and active coordination of the project. I thank Prof. M. Aslam for taking personal interest in the project and giving constructive suggestions on concepts, theory and substantive issues. I also thank Prof. A.M. Shah and his team of researchers for their assistance in the preparation of the chapter on State Finances and for the field survey done for the sections on Dairy Development, Labour and Women and Child Development. Thanks are particularly due to Ms. Sushma Chaudhry for painstakingly going through the draft report and making valuable suggestions.

I am thankful to the officials and academicians in Jammu and Kashmir and Delhi who spared their valuable time and offered suggestions for the improvement of the report.

This report is particularly significant as it comes at a time when Jammu and Kashmir has emerged from a period of prolonged conflict. We hope the future holds promise of a new era of peace, harmony and prosperity through people oriented development. The team of researchers have, in spite of several constraints and all the logistical problems, done an excellent job on time. A special word of thanks to Dr. Jacob John for writing the Executive Summary and his valuable inputs for improving the report.

George Mathew

Director

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30 September 2003

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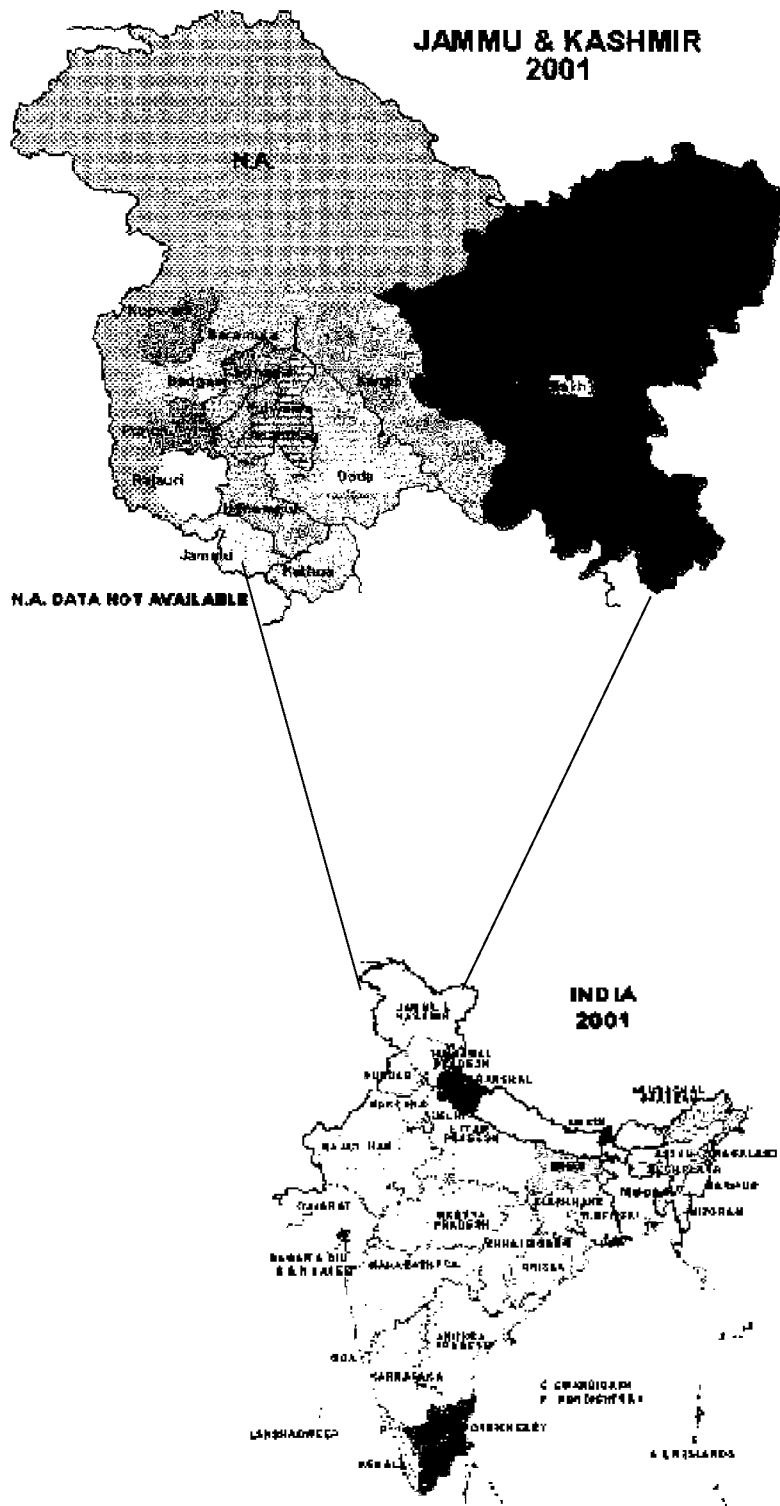
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Source: Census of India, 2002

STATE DEVELOPMENT REPORT: ITS RELEVANCE

The development process, created during the past four decades to respond to a global commitment to alleviating poverty, is in a state of disarray. The fruits of development efforts have not yet reached the poor segment of society. Many multilateral and bilateral assistance agencies are focusing on the poverty-reduction strategy as a tool for accelerating economic growth. They argue that if adequate growth rates are sustained, the poor will be swept along with the tide of rising incomes. The argument is reassuring, but reflects more a hopeful myth than a pragmatic reality. Dominated by professional finances and technocrats, the development process seeks to maintain an apolitical and value-free stance in dealing with what are, more than anything else, problems of power and values.

The real challenge of development thus lies in bridging the gap between the rich and poor through poverty-reduction programmes. The preparation of State Development Reports assumes importance in this context.

The State Development Report (SDR) is about the well-being of people, widening of their choices, measuring deprivation, highlighting the shortcomings of the present development strategy, areas of concern of the people, and identification of new resources and partnerships for more effective action. It suggests an alternative policy framework for designing and recalibrating the development process that addresses intra-state diversities and disparities in people-centered development. Therefore, the objective of development should not only be an increase in the level of income to measure social progress, but should comprise a much larger basket of choices and entitlements, including a longer and healthier life and an expansion of social and political freedom. This in turn requires deepening the scope of peoples' participation in all spheres.

WHY JAMMU & KASHMIR SDR

The fabled Vale of Kashmir, the front porch of the Himalayas, a valley of apple orchards and almond groves, willow forests and saffron fields, an exotic destination for tourists and trekkers, a refuge so wondrously endowed that it might fairly be called paradise, has been caught in militant activities for the past few years.

As the political turmoil of the state has divided the region politically, culturally and socially, human development is severely retarded. At this stage of human development when all the nations in the world are preparing ambitious programmes of development, this area is unable to identify the objectives for its future.

We cannot deny the fact that the situation on all fronts has shown marked improvement over the years, though one may differ on the matter of degree. The political dispensation has given much-needed stability and filled the political vacuum in the state putting it on road to development, reconstruction and peace. While the goal is still distant, a firm foundation has been laid and the state has traversed a long way, crossing many milestones. At this point, the State Development Report will renew the vigour and commitment of the people of the state.

The Jammu & Kashmir State Development Report advocates governance for sustainable development. It focuses on people, their capabilities, and the various opportunities the state provides, as the goal of developmental efforts. Its objectives are:

- To provide a comprehensive picture of development in Jammu & Kashmir.
- To highlight the concerns and issues
- To examine the challenges and opportunities
- To advocate a people-centered policy.

Since this is the first State Development Report, it is designed to be comprehensive in terms of sectoral coverage. This report covers important themes such as population and employment, education and health, access to safe drinking water, women's status, etc which are integral parts of the analysis. The potential areas with the capacity of enhancement of income and employment opportunities have also been critically analysed. This has been done primarily to achieve the real goals of development. In the State Development Report both social and economic issues have been addressed.

A sympathetic understanding of the challenges and opportunities will leverage greater resources and partnership with national and international development bodies especially the government and donor agencies. Changing perceptions about the problems faced by the state and designing appropriate policy instruments are the main thrust of this report.

METHODOLOGY

The State Development Report uses both primary and secondary data to analyse various social, economic and related issues. The sources of secondary data have been given at the end of the report. The most important aspect regarding data is its non-availability and/or its inconsistencies, in terms of different figures for the same indicator being quoted differently in different published sources.

As the 1991 census was not conducted in the state, comparison for some major areas was difficult. The limitations due to lack of secondary data and inconsistency were to a certain extent, overcome by the collection of primary data from the field survey through a structured questionnaire by Department of Management Studies, Kashmir University. Inputs for the SDR were also, to a limited extent, elicited from discussions held with government officials, academicians and other professionals.

LIMITATIONS OF THE STUDY

The detailed age sex structure was not available for the 2001 census; hence a sub section in 'Demography' has discussed only the age structure on the basis of the 1971 and 1981 census.

In the section on 'Roads', analysis on deficiency in road network vis-a-vis the desirable connectivity norms is not attempted. The state has three topographically different regions $\frac{3}{4}$ Kashmir Valley, Jammu and Ladakh $\frac{3}{4}$ to which norms would be different and its detailed analysis is time consuming and beyond the scope of the present study.

In the section on 'Power', updating the data beyond 2000 is not possible since the power department (PDC) itself has not compiled the data beyond 2000, covered till the completion of field visit.

In the section on 'Education', data availability was a constraint. The 1991 census did not take place in the state due to militancy. At times either data was not available or was in the process of being compiled. Attempt was made to collect information from as many sources as possible but data has not been classified on various categories such as gender, religion and community. No independent evaluation has been undertaken on the impact of centrally-sponsored schemes as well. The Directorate of Economics and Statistics has done some evaluation studies but the time period for those studies was the 1970s although they were published only

recently. Due to time constraint, an evaluation study was not undertaken to assess the same.

In the section on 'Border Area Development Programme', secondary data was found inadequate for the purpose of the study and it was available only for a few border blocks. Owing to the sensitivity of the border areas, a field study could not be undertaken to assess the impact of the BADP on the people. Hence the analysis of the programme was heavily dependent on the views given by a few bureaucrats, and which varied from person to person.

EXECUTIVE SUMMARY

JAMMU & KASHMIR: DEVELOPMENT SCENARIO

Jammu and Kashmir is an Indian state that has its own distinct and peculiar cultural ethos. The state has a predominant place as it shares the international boundary with Pakistan and China. It is enriched with the boundless beauty of snow-clad mountains, large natural lakes, forests, rivers and springs. It comprises three main natural regions, namely, Jammu, Kashmir and Ladakh. However, for administrative purposes, the state is divided into two main divisions, Kashmir with eight districts (including two districts of Ladakh region) and Jammu with six districts.

The trend in the development of Jammu and Kashmir is not encouraging. It has been lagging behind most of the states in regard to the growth of Net State Domestic Product (NSDP) at current prices. The average annual growth of Net State Domestic Product at current prices during 1980-81 to 1999-2000 was 12.45 per cent for Jammu and Kashmir against 15.01 per cent, 14.28 per cent, 13.83 per cent and 14.3 per cent for Andhra Pradesh, Gujarat, West Bengal and Kerala respectively. In the case of the growth of Per Capita Net State Domestic Product at current prices also, the state of Jammu and Kashmir was lagging behind most Indian States. The average annual growth of Per Capita Net State Domestic Product at current prices during 1980-2000 was estimated as 9.63 per cent for Jammu and Kashmir against 12.9 per cent, 11.63 per cent, 11.63 per cent, and 12.86 per cent for Andhra Pradesh, Gujarat, West Bengal and Kerala respectively.

IMPEDIMENTS TO GROWTH

The slow growth of the state of Jammu and Kashmir can be attributed to various factors. The climate of armed militancy in Kashmir during the past decade has been a major factor. Low productivity in agriculture and allied sectors has impeded employment and income generation. Poor industrial infrastructure along with the poor investment climate has left the industrial sector in its infant stage. There has not been a suitable strategy for the potential sectors to achieve higher economic growth. Lack of good governance and sound fiscal management has also been responsible for the poor economic growth of the state.

DEMOGRAPHY

Jammu and Kashmir is one of those states in the country where both the demographic situation and level of socio-economic development remains far from satisfactory. The

latest 2001 census reveals that the population of Jammu and Kashmir is 10,069,917 sharing 0.98 per cent of India's population. The population growth rate in the state has been consistently high and during 1981-2001 it was more than 2 per cent. Its geographical area is 222,236 sq. km., with a share of 6.76 per cent of the country's size. About 54 per cent of the population in the state is literate, as against the national literacy rate of 65.38 per cent. The age structure of the population indicates a high dependency ratio both in the 1971 and 1981 census. Therefore there is an urgent need for implementing the following action plan:

- a. The State Population Commission of Jammu and Kashmir should formulate specific strategies for the implementation of the recommendations of the National Population Policy (NPP), 2000 for promoting sustainable development.
- b. Promote collaborative arrangements between health professionals in the private sector and NGOs and the public sector in order to increase awareness about population stabilization and help government in the implementation of various family welfare programmes.
- c. The local government institutions should be motivated to promote small family norms by achieving reductions in infant mortality and birth rates and promote literacy.

AGRICULTURE SECTOR: GROWTH PROSPECTS

Agriculture, the predominant sector of the economy of Jammu and Kashmir, supports about 80 per cent of its population. The state is divided into three agro-climatic zones: Jammu, Kashmir and Ladakh each has its own specific geo-climatic condition, which determines the cropping pattern and productivity. Rice is the chief crop of Kashmir zone, followed by maize, barley and wheat. Jammu region dominates both in maize and wheat production. In the Ladakh region, barley is the major cereal crop followed by wheat. The production of three important food crops, namely, rice, maize and wheat, contributes a major portion of the foodgrain in the state and accounts for 84 percent of the total cropped area; the balance 16 per cent is shared by inferior cereals and pulses. Nearly 75 per cent of the country's temperate fruits, mainly apples, are grown in the state.

Considering the growth prospects of this sector, the state government should plan for higher production and productivity of each major cereal in order to achieve an annual agricultural growth rate of 3-4 per cent. In this context the state agricultural department should make suitable policies as listed below:

- a. The state should shift its agriculture development strategy from food security mode to the value addition mode by growing certain products like high value fruits, vegetables and some cash crops which can give good returns to the cultivators. There is good scope for the production of high value, low volume crops like saffron, black zeera and other spices especially in Kashmir region.
- b. Regular availability of agricultural inputs such as seeds, fertilizers, pesticides, credit, etc. should be ensured.
- c. The state government should encourage a mix of supplementary crops in each region. Comprehensive cost of cultivation studies needs to be conducted in each region/zone.
- d. The state should pay attention to short-term soil conservation measures aimed at stabilizing gentle slopes.
- e. The gap between national and state average of the area under forest can be filled by the development of social forestry. It should be promoted through various steps.
- f. A comprehensive review of cropping pattern and shift in the same to fruits and vegetables is called for. Here, the example of Punjab, which has launched a massive crop diversification plan, needs to be emulated.

FISHERIES DEVELOPMENT

The importance of the fisheries sector has been highlighted as a major food source and also a means of attraction for tourists. As an important activity allied to agriculture, it strengthens the productive base of agricultural economy and generates self-employment. In 1998-99, the total fish output was estimated at 1,88,510 a quintal, while the number of fisherman population was around 66,955. However, there has been a big gap between demand and supply of fish. In addition to the local population, defence personnel and tourists are the source of the increasing demand for fish in the state. It is a fact that the length of 27,781 km of rivers and streams can provide the facility for the farming of over 40 million tons of fish. The available infrastructure for the production of fish in the state includes 18 state-owned trout hatcheries and 22 fish farms. In addition to the fishermen, nearly 10,000 workers are employed in the fisheries sector and there is good scope for expanding employment opportunities through the development of this sector. In order to exploit the potential of this sector, various steps are required, some of which are:

- a. Private enterprise should be encouraged for marketing of fish and the possibility of selling fish in neighbouring districts of Punjab should be explored.

- b. Infrastructure support by way of purchase of refrigerated containers or vehicles and working capital, should be extended to the private sector.
- c. Fishing should be made part of tourism promotion in the state. Organizing fishing festivals or tournaments could attract fishing enthusiasts from the rest of India and abroad.

LIVESTOCK DEVELOPMENT

In Jammu and Kashmir, animal husbandry plays a significant role as 0.13 per cent of gross domestic product (GDP) of the state is contributed by this sector. The state has a precious wealth of livestock in form of cattle-buffalo, sheep, goats, poultry, etc. The cattle and poultry amongst all the livestock are considered the most important tool for the development of the rural economy. The production of pashmina shawls and other animal products like carpets, shawls and blankets of Kashmir earn handsome foreign exchange for the nation. Therefore livestock industry in the state has vast scope for development rendering quick economic returns.

In terms of livestock production, there is a gap between demand and supply. Due to the climatic condition there is great demand for meat and warm clothes in the valley. The breeds of animals available in the valley are not able to provide both components in sufficient quantities. This sector provides direct employment to about two lakh people, indirectly benefiting people who are dependent on agriculture. This sector needs more attention and the following incentives to achieve adequate expansion to bridge the demand supply gap:

- a. The state government should commercialize research output in regard to the conversion of agricultural waste into cattle feed either through its own initiatives or private initiatives. This can lead to the use of non-conventional feed and fodder resources.
- b. Jammu and Kashmir provides a suitable climate for cattle breeding. So the state government should take the initiative to establish a cattle-breeding centre.
- c. The development of poultry with modern technology should be encouraged to meet the increased demand for poultry products.

DAIRY DEVELOPMENT

With a steady growth in the production of milk, Jammu and Kashmir has become a milk surplus state. The milk production increased from 3.69 lakh metric tonnes in 1995-96 to 6.66 lakhs metric tonnes in 2001-02. As the demand for milk and milk

products has been increasing at a faster rate, there is scope for dairy development in the State. As there is abundance of the local breed of cattle and the introduction of some new breed has not yet started in Jammu and Kashmir, it is lagging far behind the state of Punjab. The sector has good potential for creating considerable job opportunities. From the current stage of subsistence activity, dairy development can grow through modernization and thereby increase income and employment opportunities. For this purpose, the required policy decisions are summarized below:

- a. As animal husbandry services being provided by the animal husbandry department are not effective, qualified private parties should be allowed to provide some of these services. Selective privatization of animal husbandry services would be the preferred approach, as some services in which the public interest is greater than individual interest would have to be provided by the government.
- b. The development of the dairy sector needs the provision of specialized infrastructure such as bulk farm coolers and refrigeration systems as well as basic infrastructure like power and water. Providing a cost-effective and continual supply of power and water to procurement and processing units will have to be top priority. This will reduce costs and improve milk quality considerably. The government needs to upgrade rural roads leading to milk collection centres to increase the frequency of collection, reduce logistical costs, and improve the quality of the raw milk.

SERICULTURE

Sericulture is the traditional occupation for a large section of the population in Jammu and Kashmir. It is estimated that 25.28 thousand families were engaged in the extraction of silk fibre in 1999-2000. It is discouraging that the silk industry, which has seen a glorious past, is on decline. Various reasons are attributed to this declining trend in the silk industry. Inadequacy of mulberry leaves and damage caused by insects and pests have caused problems in the development and expansion of mulberry trees. Despite several initiatives taken by the state government, the number of mulberry trees is still very low. During the year 1980-81, there were 601 thousand trees, which increased to 1402 thousand in 1999-2000. Due to the lower return from the activity and lack of proper attention to the plantation at the establishment stage, growth of mulberry plantation is slow. The inconsistency in the production of cocoons due to the climatic limitation of the state and inadequate rearing equipment is another matter of concern. As a result, proper growth and development of silkworms does not take place. The production of raw silk does not have consistency due to improper disease management. Even though the government has taken various steps to increase production of silkworm, raw silk and mulberry plants, the sericulture sector still needs more measures as follows:

- a. Superior varieties of disease-resistant silkworm species suitable to local conditions should be evolved to boost silk production. As the research output of Sher-I-Kashmir University of Agriculture Science and Technology (SKUAST) is not very encouraging, the state government should provide the infrastructure to the private investor.
- b. As multi-crop cultivation of mulberry is not possible, the state government should encourage the farmers to plant mulberry trees on the edges of their rice fields and orchards on a large scale. Popularizing the scheme to encourage every family to grow at least one mulberry plant can be considered.
- c. Integrating mulberry cultivation with farm and horticulture activity can provide more income and employment to the rural agricultural labour force.
- d. Marketing of the cocoon needs proper attention. Cocoon auction markets should be started at several towns where private parties as well as other states could participate in the bidding, besides the government

IRRIGATION

There has been a steady increase in the net irrigated area by different sources (canals, tanks, wells and others) during the last fifty years, reaching 2.61 lakh in 1998-99. Canal irrigation constitutes the largest single source of irrigation accounting for 93.75 per cent. Tanks, wells and other miscellaneous sources contribute the rest. The available data shows that rice and maize cultivation get the maximum share of available water sources. The state offers good scope for the exploitation of ground water, as current ground water development is a meagre 1.33 per cent. The MI structure like STWS, dug wells, PI sets are quite feasible in the state. Lack of information on the availability of resources at the block level on area-specific basis, the absence of coordination between the different state agencies involved in ground water activities and shortage of technical staff in banks for formulation of ground water as well as surface water-based schemes are the main reasons for the difficulties in exploiting ground water up to its potential in selected areas of Jammu and Kashmir. The following are some areas of action in the field of irrigation:

- a. In order to exploit ground water potential, need assessment at the block level is recommended.
- b. Delineate area suitable for the development of ground water.
- c. Recommend area-specific suitable design of MI structures and unit cost.

INDUSTRIAL GROWTH: A PRAGMATIC APPROACH

Jammu and Kashmir is an industrially backward state without a strong industrial base. However, many small and medium-scale industries have come up both in the traditional and new areas in the state. With the government's support in the form of loans and incentives to set up industrial units, their number increased from 35,641 in 1995 to 42,808 in March 2001. At the same time, employment increased from 1,54,621 persons in March 1995 to 1,87,399 in March 2001. Though the number of SSIs in the state has gone up, there are also cases of sickness of units as some of the units are dysfunctional and missing. Due to the difficulty in recovery of loans along with law-and-order problems, industrial financing has come down drastically in the state. In fact, SIDBI and IDBI stopped refinance from 1992-93 till 1995-96 though SFC has marginally increased the disbursement of loans in 1998-99.

Mineral deposits available in the state are bauxite, limestone, sapphire, gypsum, coal and marble, most being located in border areas and in difficult terrain. Roadways are the only means of transportation since railways are not well developed in the state. Therefore it cannot compete with other states like Rajasthan due to high transportation cost. The fragile ecology of the state also inhibits the setting up of large industries based on minerals.

Among the twenty PSUs, majority are running into losses with the exception of four that are earning revenues to meet their day-to-day expenses. The state, however, does not have any functional policy towards restructuring / revival of the loss-making PSUs. Though the concerned departments were asked to come up with the proposal to restructure or revive the PSUs, the finance department has not yet received any such proposal. Disinvestments, as another option, are also being explored and the state has initiated the process by disinvesting in a few units owned by Jammu and Kashmir Industries Ltd.

Industrial promotion agencies such as SIDCO, SICOP, Small Industries Service Institute (SISI) and Directorate of Industries and Commerce perform various functions to promote industrialization in the state. Both central and state governments announced a package of incentives to attract industrial investments in J & K. Still, the industrial scenario of the State has been very dismal and an action plan would therefore consist of the following:

- a. Sector-specific strategies should be adopted to promote industries in Jammu and Kashmir keeping in mind the climate, accessibility, raw material availability, human resources and consumption pattern.

- b. To encourage investments in the state, Government should play a lead role to build up the confidence of the private investors
- c. A comprehensive and analytical review of existing industrial estates in the state is required so that reasons for the failure or non-performance of units located in the industrial estates can be ascertained and corrective action taken.
- d. Common Facilities Centres should be provided to the industrial units set up in the estates.
- e. Better infrastructure including uninterrupted power supply and connectivity should be provided to the units.
- f. A restructuring fund could be created by the Central Government to downsize or restructure the financially non-viable public sector corporation in a phased manner.

EMPLOYMENT GENERATION

The number of workers registered an increase of 39 per cent during 1981 and 2001. The total number of workers now stands at 36.89 lakh including 11.52 lakh marginal workers. Considering the increase in population of the state from 59.87 lakh in 1981 to 100.70 lakh in 2001, job opportunities have not kept pace with the population growth. It is important to note here that the present study has not taken into account the NSSO 1999-2000 data on occupational structure as the emphasis was on educated unemployment and the Digest of Statistics published by the State Government fulfilled the purpose. The problem of unemployment gains more importance because of increasing educated unemployment, absence of industrial growth and continuation of agriculture and allied sectors as subsistence sector for 70 per cent of the population is directly or indirectly dependent on it. The broad areas of action to be followed to generate employment opportunities are as given below:

- a. As a major source of income and employment for the local people, revival of tourism needs to be ensured to increase direct and indirect employment.
- b. Development of other sectors, which include horticulture, agro-based industries, handloom and handicrafts, sericulture, can generate employment opportunities in the state. Setting up of hydel power projects can also provide employment opportunities to technical and non-technical people. Biotechnology and Information Technology, the new emerging knowledge- based industries, which have high employment potential, need to be focused upon.

The announcement of a comprehensive package of Rs. 6,165 crore by the Prime

Minister Shri Atal Bihari Vajpayee, at the end of his three-day visit on May 2002 to Jammu & Kashmir, covering various aspects of development and security, with a thrust on generation of new employment opportunities for the youth of Jammu & Kashmir and relief for migrants affected by militancy and cross-border shelling will definitely enhance the employment opportunities for the youth .

INFRASTRUCTURE GROWTH

Power

The state has a huge hydel potential estimated at 20,000 MW of which less than 10 per cent has been exploited so far. The installed capacity in the state was 374.13 MW in 1998, with 190.19 MW in hydel plants and 183.94 MW in thermal plants. The consumption of power increased from 2577.9 MKwH in 1997-98 to 3397.0 MKwH in 2000-01 recording an increase of 31.7 per cent. The domestic sector has been the biggest consumer followed by agriculture and industry.

Transmission and Distribution (T & D) losses in the state were as high as 47.5 per cent in 1997-98. These losses include transformation losses as well as unaccountable consumption, of which the latter accounts for more than half of the losses. The absence of metring of consumption due to non-installation or the non-functioning of the metres accentuates the problem. Power theft and pilferage exert additional pressure, forcing the state to purchase more from outside sources. The following action steps need to be taken to improve the power situation in the State of Jammu and Kashmir:

- a. Carrying out large-scale reforms in the power sector in order to reduce losses, induce accountability, and ensure proper account of power supply and distribution.
- b. Universal metring should be implemented with universal coverage to obviate incidence of theft.
- c. The power distribution needs to be privatized and an effective system of recovery of dues with suitable incentive structure should be introduced.

Roads

There were 13,540 km of roads in the state on March 2000 apart from national highways with 3,715 km of road length maintained by the state. Other departments in the state – the Forest department, Irrigation and Flood Control and C.D & N.E.S. department - maintain a total of 16,090 km of roads.

Difficult terrain as well as severe law-and-order problems has contributed to poor connectivity. There are inter-district variations in respect of connectivity of roads. In terms of road length per 100 sq. km. of area, Budgam district has the highest road density of 81.84 km in contrast to the districts of Leh, Kargil and Doda with 2.58, 4.82 and 5.24 km respectively. On the whole, districts in Jammu division lag behind the districts in Kashmir valley as far as road infrastructure is concerned. For the development of roads, Central Road Fund, Additional Central Assistance and loans raised from NABARD were utilized. Various actions required in this area are summarized as follows:

- a. A project to connect Pampore, Lassijan to Rambagh via Padshaibagh will provide an alternative route to the south of the valley, given the growing and burgeoning intensity of traffic in the valley. As the project has not been cleared for funding from the Centre, the same may be given at the earliest.
- b. The state government intends to build an alternative road to the existing National Highway that remains closed for long periods of the year due to bad weather and landslides. The proposed highway would be shorter in length by about 80-90 km to the existing National Highway-1 and would cost Rs. 200 crore. The Centre should explore the feasibility of the new project proposed, given the fact that the state with its limited financial resources would not be in a position to build this road.
- c. Over the years traffic on the roads in the state has increased manifold. The stretch from Banihal to Srinagar needs to be upgraded from two lanes to four lanes.
- d. Due to locational disadvantage, developmental works have to be suspended in the Ladakh region for 5-6 months a year. Thus construction of road from Tsomoriri to Spiti in Himachal Pradesh via Parangla Pass, which is a stretch of about 60 km, becomes important to provide connectivity to the region almost throughout the year.

Transport

Traffic on the roads has increased by more than 2 ½ times against 1¼ times increase in the road network during 1989-2000. In addition to the traffic growth, there are other operational and commercial problems faced by the transport sector like frequent landslips, narrow roads and short working season of about six-seven months. The rail – road mix of transport in the state is very low. As Jammu city is the railhead for the state, Kashmir valley as well as Ladakh is totally dependent on road transport. The state, with three civil airports at Jammu, Srinagar and Leh, is connected to the rest of the country through air transport also. The important

recommendations to improve the transport scenario of the Jammu and Kashmir are:

- a. With regard to road transport, the State Road Transport Corporation (SRTC) is a loss-making public sector undertaking. While the government should perceive SRTC as a social obligation its fleet should be limited only to those routes where private operators are not forthcoming.
- b. As far as rail transport is concerned, ongoing rail projects - Hampur – Katra and Qazigund- Baramulla sections of Udhampur-Baramulla need to be given high priority, as taking of railway line into the valley will open new avenues and opportunities of economic development and social transformation.
- c. The state, sparsely populated and scattered as it is, needs more airports and better air connectivity. Kargil airfields are not yet operational and putting Kargil on the air map will open up that region to tourism and lead to economic development of the area. Air frequency to Leh also needs improvement, particularly during the summer season that is the tourist season for Ladakh. Remote places like Gurez, Kupwara, Poonch, Rajouri and Kishtwar need to be connected by air.

Telecommunications

Jammu & Kashmir has a tele-density of 1.65 per hundred persons while its tele-density in rural areas is as low as 0.12 per hundred persons. In the absence of private operators, Bharat Sanchar Nigam Limited (BSNL) is the only basic telephone services providing body in the state. The Jammu and Kashmir Telecom Circle has five Secondary Switching Areas (SSA), namely Jammu, Srinagar, Udhampur, Rajouri and Leh. There were 349 exchanges of various capacities in June 2002. The state needs more attention in the telecommunication sector especially in the following areas:

- a. The village telephone connectivity should be improved
- b. Cellular and Wireless-in-Local-Loop (WLL) services should be made available to Jammu and Kashmir without any break.

WOMEN AND CHILD DEVELOPMENT AND HEALTH

Women and children are the weaker section in the family and society in the state. In all spheres of life including health, education, income and political participation, women are accorded low status. In regard to school education, the low enrolment ratio and high dropout rates among girls show poor utilization of educational opportunities by girls.

Due to limited knowledge, skills and resources at their disposal, women are engaged in informal and unorganized sectors where the wages are very low. As a result, the income is very low, degrading their quality of life and lowering their standards of living. Women and the girl child tend to get marginalized due to their low visibility and due to the fact that their health issues tend to be confined within the domestic sphere.

In order to empower women and children, several programmes such as IRDP, TRYSEM and DWCRA have been started in the state. Jammu and Kashmir Women's Development Corporation for instance has also done a commendable job. The Corporation has trained a number of women in different traditional and non-traditional trades, besides providing soft loans to various women for setting up their own income-cum-employment generating units. Despite the fact that some of these programmes are successful, they have not achieved the anticipated impact on the over-all status of women.

- a. The health status of the people in Jammu and Kashmir has not been able to keep pace with the national level of achievements. Militancy during the last few years has also worsened the condition. Consequently, the state till date has a considerable segment of population living below poverty line, with poor infrastructure. There have been some improvements in health with respect to certain indicators. After 1990, there was a sudden decline in annual birth rate which fell to nearly 20 per million from the level of 34 per million. The annual death rate also registered a sharp decline from 7.90 in 1990 to 5.40 in 1998 in the state. A comparison of infant mortality with the rest of the country shows that the IMR in Jammu and Kashmir is 45.4, far below the national average of 71.6 per thousand. This indicates a very positive signal for the state towards reducing infant deaths.
- b. In order to improve health conditions and promote women and child development, a concerted effort should be made in the fields of water supply, unemployment, health, education and health care system as mentioned below:
 - Water Supply: There is an urgent need to provide safe drinking water to the people with regular water surveillance and water purification on cost-effective methods. Better leak detection and maintenance of water system can improve the supply of water to a large extent. Safe water will increase personal hygiene and reduce the occurrence of skin and other diseases.
 - Unemployment: Setting up of cottage industries would help in reducing unemployment among women and make them economically self-reliant

and independent. Females can be given special training in preparation of products that are in demand.

- Health Education: Informal health education on sanitation, hygiene, etc., needs to be imparted at family level. Information can also be disseminated through mass media by showing plays on negative aspects of bad sanitation, etc.
- c. Health Care Delivery System: Representatives from the local population can be chosen to provide health care to the people. The representatives may be given training in first aid and basic knowledge about treatment of minor ailments. They would keep track of all young married women for giving advice on various aspects of family welfare.

EDUCATION

Jammu and Kashmir has remained educationally backward compelling the state government to promote education in the state. The state government keeps taking various initiatives from time to time to improve the education system. The government runs many centre and state supported schemes, especially for the backward/underprivileged sections of the society, so that they are not deprived of education. It includes providing free education up to the college level, mobile institutions for the nomadic population, scholarships, free books and uniform to deserving students. The Annual Report of the Education Department states that around 2000 privately run schools are operating in the state. A significant number of privately run technical and other institutes, is limited only to cities and towns. Education sector in the State needs various reforms such as:

- a. There is a need to rationalize the scheme of providing free education at all the levels in the state and to reconsider the decision of providing free education at the university level. As higher education is directly related to the employment sector, the stress should be on vocational education leading to better placement in the job market. The need of the hour is to learn the latest technologies available and government institutes need to be equipped with the latest infrastructure so that students are better informed.
- b. Steps should be taken to ensure a higher ratio of enrolment among girls. As the existing infrastructure is not sufficient, adequate infrastructure, training and learning material should be made available. Locally employed teachers should be encouraged to minimize absenteeism in schools especially in the remote areas. As in the case of Madhya Pradesh, village panchayats have been associated with the supervision of functioning of schools in the villages. This

experiment has met with considerable success in reducing absenteeism on the part of teachers in Madhya Pradesh. The government of Jammu and Kashmir could try this experiment too.

URBAN DEVELOPMENT

The increasing concentration of population in the urban areas of Jammu and Kashmir has created the usual problems of shortage of houses, inadequate supply of drinking water and problems of drainage and sewerage, pollution, unemployment, poverty, etc. The continuous growth of population pressurizes the housing market, demanding more houses. With the demand for houses having increased, the quality and condition of housing have received much less attention. The mushrooming growth of private housing colonies, which are either ill planned or un-planned, have created various problems for urban local bodies in providing basic amenities to these colonies. For instance, against the demand of 63 MGD drinking water in Jammu city, the present availability is 50.80 MGD. The problem of water supply has been so acute that the PHE department has also started exploitation of ground water in a big way due to the depletion of surface water resources. With a high growth of urban areas and increase in developmental activities, the quantum of untreated wastewater and solid waste is rapidly increasing. Various sewerage schemes have been taken up by the state to tackle the problem. The continuing urbanization and relentlessly growing urban population have increased the problem of urban poverty. In order to achieve speedy development in the urban sector, the followings actions are necessary:

- a. The state government should prepare comprehensive integrated urban area development plans including zonal, district and sector plans and layouts.
- b. There should be involvement of the private sector in the provision of urban services to meet the increasing demand.
- c. The concepts of user-pay, abuser-pay and polluter-pay should be implemented while determining the service charges to assess the practical aspect of pricing.
- d. The state government can take up some externally funded projects to augment water supply and sanitation.
- e. Increasing emphasis can be given to the formation of housing cooperatives to meet the growing demands of housing facilities in urban areas.
- f. The state government should give due attention to urban transport and prepare a transport policy that is affordable, environment friendly and fuel-efficient, financially sustainable and provide accessibility and reasonable mobility to all sections of the people.

PANCHAYATI RAJ

The promulgation of Village Panchayat Regulation Act. No.1 in 1935 marked the commencement of the unique history of Panchayati Raj in the state. Subsequently the Act of 1935 was amended in 1941 to cover a wide range of subjects and to delegate more powers to the panchayats. Before the Panchayati Raj system could be introduced in the whole country, Jammu & Kashmir took a lead by passing the Jammu & Kashmir Village Panchayat Act of 1958, repealing its earlier Acts. Although the Act was passed primarily to make better provisions for the administration of Village Panchayats, the manner of its implementation made it open to manipulation by various vested interests. In order to improve the system further, the Jammu & Kashmir Panchayati Raj Act, 1989 was passed in March 1989. The information collected through informal sources reveals that at present, panchayats are not at all in a comfortable state of affairs on various counts. A large number of seats are vacant as the number of panches and sarpanches became targets of militants and lost their lives. Due to shortage of funds, panchayats are non-functional and development schemes continue to be implemented by departmental functionaries. Moreover, the delegation of power to panchayats has not taken place, keeping them in a dysfunctional state. In this context, the following major steps are to be taken:

- a. Functional devolution, both administrative and financial, is an essential step. If panchayats were assigned a developmental role and greater autonomy, it would be necessary to introduce changes in the pattern of field administration. Many statutory powers now exercised by the field-level bureaucracy may have to be transferred to the panchayats. In order to make panchayati raj effective, its revenue base needs to be strengthened.
- b. Instead of retaining nomination quotas in the Act, people should be given the freedom to choose their representatives rather than impose government-nominated people in the local government.
- c. There is a need to strengthen the planning apparatus at the *halqa* panchayat level and to reduce the workload of the Village Level Worker.

IMPROVEMENT OF GOVERNANCE

Good governance requires accountability by public officials along with transparency in regard to decisions and actions taken by various authorities. People's participation is necessary to make the system more accountable and transparent. The three divisions of the state, i.e., Jammu, Kashmir and Ladakh consist of plains, valleys and hills. It is not necessary that whatever is suitable for plains may also be

implemented in the hilly areas with the same kind of restrictions/conditions. So it becomes imperative for the state government to give importance to all the three regions as far as the implementation of the programmes is concerned. This will prove beneficial in minimizing the dissatisfaction over policies by the people concerned. The growing distrust between various communities, the increasing disparities in the regional development and the perceptible alienation and cynicism of the general public are the issues that need to be addressed urgently and imaginatively. In this context, the following measures are essential:

- a. Security concerns of officials should never become a hindrance in approaching them for the redressal of grievances by the people. Proper follow-up of these complaints and grievances should be done.
- b. Geographical conditions of different regions of Jammu & Kashmir should be considered while implementing various programmes. The state government should give importance to all the three regions equally as far as implementation of programmes is concerned. This will prove beneficial in minimizing the dissatisfaction over policies by the people concerned.
- c. The growing distrust among various communities, the increasing disparities in regional development and the perceptible alienation and cynicism of the general public are issues that need to be addressed urgently and imaginatively.

STRATEGY FOR POTENTIAL SECTORS

1 Horticulture Sector

The horticulture sector occupies an important position in the farming system of Jammu and Kashmir. The state has three agro-climatic conditions: sub-tropical, temperate and cold arid. Each agro-climatic region has its own potential to grow specific fruits. Temperate fruits like apple, pear, peach, plum, apricot, cheery, walnut, etc. grown at elevation of 1000 to 3000 metres above sea level are important cash-fetching fruits of the state. These fruits not only supplement the diet of the people in the state and country, but form an important item of our exports.

The horticulture sector plays a significant role in Jammu & Kashmir in providing employment. From the stage of tree plantation to the point of its marketing, it has a good potential in employment creation. There is need to explore other options, that too in the field of value added agriculture. However, the state is facing many problems in regard to the development of horticulture. It includes low productivity, great variability in important crops like walnut and almond, higher percentage of off-grade fruit, poor connectivity with the market place and small and fragmented land holdings.

The state government has taken certain initiatives to promote the horticulture sector. It has introduced high-density plantation of apples and soft fruits like strawberry and currants around cities and towns. In cooperation with NABARD, it has developed 19 markets, 17 satellite or rural markets, one terminal market and one grain market. Some individual fruit-growers have started the marketing of fruits as a private initiative. Still, a lot needs to be done to exploit the huge potential in this horticulture sector. Some steps are:

- a. It is essential for the state to provide proper marketing facilities to the growers especially by promoting the private initiative in the marketing of products.
- b. APEDA should be encouraged to set up an Export Promotion Zone to promote the export of selected fruits and vegetables including strawberry, mushroom and cumin seed.
- c. There should be emphasis on the optimum use of land by using high-density crops like apples. Considering the importance of research in this field, the state government should collaborate with SKUAST, which has developed certain technology, e.g., tissue culture.
- d. There is need for improvement in the post-harvest handling of fruits.
- e. The horticulture department should take certain initiatives for the development of new variety of fruits like kiwi fruit, wild apricot, nectrine, olives, etc.
- f. The climate of the state is ideally suited for production of exotic, high-value vegetable crops like asparagus and mushrooms. Asparagus, mushrooms and broccoli can be grown profitably.
- g. Since Leh, Srinagar and Jammu are connected by air, there is need to work out arrangements with the airlines for the transportation of perishable items like fruits and vegetables to Delhi, Chandigarh, Mumbai and other parts of the country.

2. Handloom and Handicrafts

The handloom and handicraft industry, the state's oldest traditional cottage industry, has special socio-economic significance due to its vast potential for economic activities like the generation of employment and revenue. All the three regions of the state have unique specialties in this sector. Jammu holds the domain in Basholi painting, calico painting, phoolkari; Kashmir specializes in carpets, shawl, wood carving, papier mache, chainstitch, crewel; and Ladakh's areas of expertise covers wood carving and painting, clay moulding, pashmina weaving, carpet, and thanka painting.

The production of the handicraft sector registered a growth of 126.07 per cent in terms of value from Rs.280 lakh to Rs. 633 lakh during 1998-2000. The handicrafts and handloom sector provides employment to over 4 lakh people. Realizing the vast potential for employment, the JAMMU AND KASHMIR government has undertaken various programmes including training programmes for the youth in different crafts and market assistance schemes. Several welfare measures have been undertaken for the weavers, e.g., modernization of the looms in order to boost the handloom activity in the state. In order to revive the handloom sector, a multi-pronged strategy as mentioned below should be pursued:

- Addition of new designs and product diversification.
- Improvement of productivity of weavers through enhancement of skills, introduction of more efficient looms and other related equipment.
- Greater market access to the handloom products produced in the state through effective marketing strategy and appropriate incentives. In this connection the National Handloom Development Corporation Ltd.'s marketing infrastructure in Delhi, Jaipur and Hyderabad should be utilized for marketing the state handloom products.

As regards the handicrafts sector, there is an urgent need for adopting a pragmatic approach to exploit its potentialities through the following steps:

- a. Adopt a cluster approach by identifying and promoting various handicrafts clusters in the state, giving them necessary support in design development, production and marketing of various handicraft items.
- b. The Central Silk Board should provide liberal assistance to re-engineer the silk sector including the establishment of a cocoon bank to enable cocoon produced in JAMMU AND KASHMIR to be reeled within the state. This would help the state to increase the value addition of cocoons both for yarn and converted fabrics.
- c. There should be a systematic promotion of handicrafts of Kashmir in international markets and developing a brand name.

3. *Tourism*

- a. Kashmir is known as the paradise on earth because of its numerous scenic spots and attractions. The other important aspect of tourism potential is the existence of shrines, monasteries, temples and cave temples in the three regions. The tourism sector has immense backward and forward linkages in

terms of both income and employment and can contribute significantly to the economy. The services of the local transport at present are not up to the international standard. All major tourist destinations in the world have hotel chains of international standard whose facilities, norms, standards are uniform throughout the world. Tourism, once the mainstay, is now languishing and the challenges faced by this sector are many. In a climate of armed militancy in Kashmir during the past ten years, the flow of tourists to the valley has dried up. The economy therefore has been severely impacted. Drastic steps, as suggested, are essential to revive the tourism sector in the State:

- Srinagar airport should be declared an international airport and made a charter destination as also Leh, capital of Ladakh.
- b. Kargil airport needs to be commissioned for the promotion of tourism to the Suru valley, Drass area and Zaskar.
- c. In Ladakh, the local residents need to be encouraged to create paying-guest or houseguest accommodation, as many tourists would love to stay in local houses and experience the Ladakhi way of life.
- d. The work on construction of a railway line connecting Jammu with the valley should be completed on a priority basis.
- e. There is need to upgrade and refurbish the Patnitop complex and consider handing over of its management to the private sector. As some pilgrims visiting Vaishno Devi Shrine visit Patnitop too, a sustained promotion campaign could attract a larger number of visitors.
- f. The people of Jammu and Kashmir are handsome, smart and hardworking and so imparting of specialized skills and state-of-the-art hospitality related technical education to them could boost tourism.

4. Information Technology (IT)

The IT industry, though not well developed in the state, has tremendous potential for growth. For developing IT, the knowledge-based industry, a large pool of educated and skilled youth in the state provides the required manpower. The geo-climatic condition offers an ideal location for setting up the IT industry. The development of this industry would help the state economy to solve the current problems of educated unemployment, weak industrial base, poor accessibility and small market. The state government has taken certain initiatives to develop this industry and its new industrial policy provides a favourable environment for increased investment in the IT industry. The state government should take the following steps to promote the IT sector in the state:

- a. Establish a university, under private auspices, on the lines of the Indian Institute of Information Technology (IIIT) as in other parts of the country.
- b. Encourage local youth to set up their own units, and persuade JAMMU AND KASHMIR Bank, SIDCO, etc., to provide soft loans.
- c. Improve infrastructure and ensure uninterrupted power to the IT units.
- d. To promote JAMMU AND KASHMIR as the premier location for world-class companies, the state government must provide infrastructure and living conditions comparable to any other location in the world. It should formulate and implement national and international promotional programmes to attract IT companies to the state.
- e. Encourage Non Resident Indians (NRIs) to invest in the IT sector.
- f. Online banking, e-commerce, e-governance, etc., new areas where IT can be used to the benefit of the economy should be focused.

5. *Biotechnology*

The climate of the state is ideally suited for research and development (R&D) in the field of biotechnology. Some infrastructure already exists for this purpose. As stated earlier, the state is divided into three geo-climatic zones - subtropical, temperate and cold arid zones with specific needs. Most of the research in biotechnology has taken place for temperate zones of the country. Technical innovations cannot simply be borrowed from other states. There is need to develop indigenous technology for productivity enhancement and developing new varieties of crops, keeping in mind the local conditions and demands. The only source of funding available for research in biotechnology is government funding. More private companies need to come forward and invest in R&D in the state. Another important challenge for the development of biotechnology is the linkages between the research institutes and the cultivator, a gap which becomes a hurdle in the commercialization of biotechnological research. The following steps should be taken to improve the biotechnology sector:

- a. The state government should to build the infrastructure for biotechnology research and encourage private research initiatives in hybridization, micro-propagation, tissue culture and other biotechnological applications in horticulture.
- b. The state government should emphasize the use of biotechnology to introduce new and improved cattle breeds.
- c. As the Ladakh region provides excellent soil and climate for seed production, the state government should encourage experimentation in this area. Ladakh is ideally suited for production of medicinal plants which should be encouraged.

- d. A Biotechnology Park can be set up in the state to provide basic infrastructure along with various incentives to private investors.
- e. Biotechnological methods should be used for the development of low-cost and high-nutrition fodder.

STATE FINANCE

The state has been facing serious financial problems with revenue and fiscal deficits increasing at alarming rates. The account of the state government for 2000-01 closed with a revenue deficit of Rs. 961 crore while the fiscal deficit increased to Rs.1873 crore in 2000-01. The state suffered due to militancy for a long period from 1989 onwards resulting in erosion of the tax base, increase in expenditure, depletion of infrastructure and various other factors related to law and order. The state income did not grow due to difficulties in collecting user charges and sales tax. While these factors affected the availability of funds for the business of the government and were responsible for the phenomenal increase in expenditure, inefficient fiscal management further accentuated the problem of deficit.

The problem of large and persistent revenue/fiscal deficits is serious, and calls for urgent attention. The state needs to institute improved practices of financial management and radical re-orientation of major policies for improving the efficiency of resource use. In fact, a sound and effective management of state finances calls for efficiency, economy and effectiveness of revenue and expenditure operations. There is a lot of potential for improving the revenue receipts in the state.

a. Expenditure on establishment: Revenue expenditure is the major drain on the limited financial resources of the state. Huge establishment cost is the single most contributory factor that has aggravated the problem of sharp increase in revenue expenditure. In this regard, the following steps may be taken:

- Most of the public sector undertakings in the state are running into losses. PSUs like the JAKFED, AIDC, JKTDC, JK Cable Car, and HPMC can be privatized as some of these organizations own large assets including cold storages, buildings and large tracts of lands which can fetch good money for the government through disinvestments.
- Government institutions that have outlived their utility, e.g., Housing Board, Agrarian Division and Command Area Development Authorities need to be abolished.
- The Voluntary Retirement Scheme (VRS) can be implemented with the

assistance of Government of India or through banking arrangement. Similar assistance can be given for dispensing with the services of employees of most of the corporations that can be listed for closure.

- There should be specific targets for the reduction of the size of the bureaucracy within a definite time frame.

b. Control of overdraft:

- An upper limit for overdraft must be fixed, keeping in view the critical requirement of the state and should be fully enforced through different measures including guidelines from RBI. There should be a special dispensation to cover the overdraft over a period of 3 years.
- The practice of re-appropriation of funds by different officers of the government beyond their competence should not be allowed without proper permission from higher authorities.
- A proper and readily accessible record of works done, under process and planned under different heads with outlays, should be maintained at different concerned levels and in all DDOs and treasury offices of the area in order to stop the duplication of payments under different heads, completely.
- All functions of the finance department and its offshoots should be computerized and linked with each other on a priority basis in order to improve the management of finances of the state and bring transparency in its financial transactions.

c. Development programme: With regard to the funding of development programmes, the following steps need to be taken:

- Re-examination of all ongoing schemes with reference to zero budgeting.
- Merging, converging or weeding out of schemes with a common objective.
- Single-source funding for similar schemes appearing on Plan and non-Plan side.
- Reviewal of projects suffering from time and cost overrun. The projects, which can be completed, soon should be accorded priority vis-a-vis those with a long gestation period.

d. Others:

- The government should make a complete shift to zero-base budgeting.
- Expenditure related to security needs to be fully reimbursed by the Government of India.

- Large-scale reforms in the power sector should be undertaken to ensure proper account of power supply and distribution and thereby reduce huge financial losses.

BORDER AREA DEVELOPMENT

The people of Jammu and Kashmir living close to the international borders have to deal with special problems arising out of their distinct geo-physical situation and concomitant socio-economic conditions. With the objective of meeting the special needs of the people of the region, the Border Area Development Programme (BADP) was introduced in 1992-93. It was started in 41 CD and NES blocks of the state bordering Pakistan. In addition, two blocks of Nyoma and Durbuk bordering China in Leh district have been brought under the programme during 1998-99, covering a total number of 44 blocks.

BADP, a 100 per cent centrally sponsored scheme, has been considered as a part of the state plan. The schemes to be taken up under the programme are prepared by the concerned departments in the state and approved by the state level screening committee. An Empowered Committee of BADP has been constituted under the chairmanship of Member-Secretary of Planning Commission, New Delhi, at the national level, and Screening Committees constituted under the chairmanship of Chief Secretary at the state level for the execution of this programme.

Under BADP, Jammu & Kashmir Government has been executing schemes in sectors such as education, health, roads and bridges, water supply, etc. Particular emphasis is being given to the improvement and strengthening of social and physical infrastructure. It is reported that these programmes have been strengthening security activities and development works in the border districts. The major recommendations in regard to Border Area Development Programme are summarized as follows:

- a. There should be a sizable increase in the utilisation of funds for rural development schemes in the state. The the pace of implementation of programmes needs to be accelerated.
- b. Efforts are needed for the development of infrastructure, generation of employment and alleviation of poverty in rural areas to bring about the desired socio-economic development of Jammu and Kashmir.
- c. There is no allocation under the head 'tourism'. Tourism may be encouraged in blocks like Nubra and Durbuk.
- d. A multi-pronged strategy is required to deal with the problems of the border

areas. This should comprise willingness to interact and discuss the legitimate grievances of the people, infrastructure development, generation of employment opportunities, good governance and effective decentralization.

- e. There is also an urgent need to undertake an impact assessment study of the schemes implemented by the government on the socio-economic conditions of the people. Such a study would help in assessing the ground realities of the impact of various schemes on the social and economic conditions of people inhabiting these areas.

CONCLUSION

As a state with unique features and a strategic location, the speedy development of Jammu and Kashmir needs an integrated approach. The top priority of the government should be to create a secure environment by improving the law and order situation in the state. State finance should also receive proper attention in order to ensure better fiscal management. A sound policy should be devised to exploit the potential in the sectors of strength. The development of potential sectors such as horticulture, handloom and handicrafts, biotechnology, tourism and information technology will have strong inter-linkages with the rest of the sectors. In a nutshell, sound policy and good governance can lead the state of Jammu and Kashmir to a faster development path.

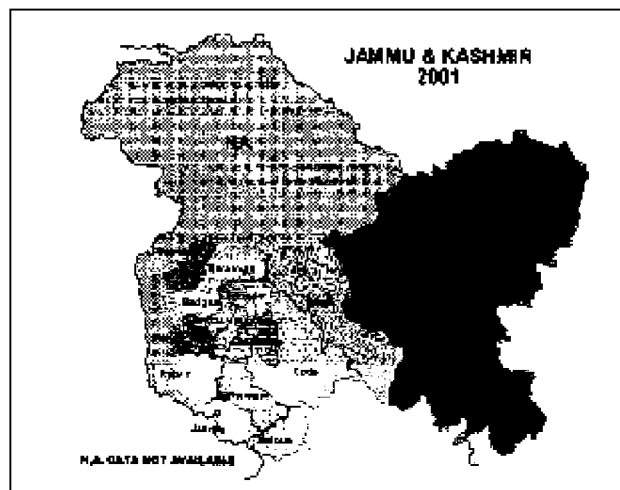
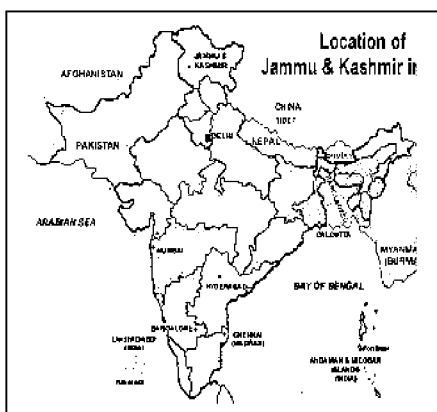
CHAPTER I

Jammu and Kashmir : An Introductory Profile

INTRODUCTION

Perched securely among the lofty snow-sprinkled mighty Himalayan mountain chain, the emerald blue skies peeping through the chinks of the clouds, the tall chinar trees swaying to the rhythm of the gusts of wind, all condense into a kindly smile, forming the lovely state of Jammu and Kashmir.

It is located in the northern part of the Indian sub continent in the vicinity of the Karakoram and western mountain ranges. It falls in the great northwestern complex of the Himalayan Ranges with marked relief variation, snow-capped summits, antecedent drainage, complex geological structure and rich temperate flora and fauna. The forests of the state are a natural tonic wrapped up in a wonderland – a paradise for the stressed city folk from all over the country. Within its hectares of heavily forested mountains, lowlands and wetlands there are numerous varieties of plants and trees, innumerable species of animals and a myriad of birds and insects. Walking through the forest floor, one can discover a treasure trove of curious insects and flowers. More than just ethereal beauty, the state has majesty, grandeur and an eeriness. The water bodies provide an unparalleled window in the wonders of the magnificent forest regions.



Source: Census of India 2001

HISTORY

There are various versions of historical backgrounds available for the State of Jammu & Kashmir in general and for the valley of Kashmir in particular. Since the intention here is not to write history but to provide a historical background for the introductory profile, a mixture of various versions was thought to be a desirable option.

According to one version¹, ‘ancient Kashmir is steeped in legend. It is said that the Kashmir Valley was once the great lake Satisar (the Lake of the goddess Sati, also known as Durga), home to ferocious demons. Responding to the penance of the great sage Kashyapa, the grandson of Brahma himself, the gods destroyed the demon of the lake, with a pebble divinely caste, which today stands as the hill upon which towers the fortress built by the Mughal Emperor Akbar, and known today as Hari Parbat. The water of Satisar was drained through a breach in the mountains at what is now the mouth of the Valley, beyond the northern town of Baramulla (or the Sanskrit name of Varaha Mukh, the visage of the boar). From then on the Valley has carried the name of its founder. Like that of the rest of India, the ancient history of the State lacks detailed documentation although history and legend have been indistinguishably mixed in ‘Rajatarangini’ by Kalhan. His identity remains a source of conjecture. According to him Kashyapa was the pioneer King of Kashmir and this region was known as *Kashyapamar*, which gradually changed to *Kashmar* and *Kashmir*. In the 3rd Century BC, the state was incorporated into the Maurya Empire under Asoka, founder of the city of Srinagar. Buddhism became the principal religion which continued into the times of the Kushanas (1st and 2nd centuries AD), the names of many of whose rulers several towns in the Valley were named and continue to be borne, such as Kanispora after Kanishka, and Hushkora after Huvishka. It was in Kanishka’s time that the 3rd Great Buddhist Council was held in Srinagar, formalizing the split between the schools of Hinayana and Mahayana Buddhism. Thereafter Buddhism declined in the Valley though it retained its vibrancy and continues to thrive in Ladakh.’

‘In the 8th century, Kashmir rose to become the centre of a great kingdom, spanning much of North India and parts of Central Asia under Lalitaditya Muktapida, who was the builder of the Martand (sun) Temple, and founder of the Valley’s irrigation canal system which has survived for centuries, helping water rich harvests of the finest rice, a variety of temperate fruit and exotic crops such as saffron.’

¹ http://www.indianembassy.org/policy/Kashmir/Kashmir_ME/history.html

According to another version,² 'Kashmir passed into the hands of Muslims rulers in 1324 A.D. The most notable Muslim rulers of Kashmir were Zain-ul-Abidin and Yusuf Shah Chak. The Mughal emperor Akbar conquered Kashmir in 1587, but, Aurangzeb's successor was a weak ruler and in 1752 the Afghan ruler Ahmed Shah Abdali seized Kashmir. His reign is remembered as one of the most terrible in Kashmir's entire history. In 1819, the Sikh ruler of Punjab Maharaja Ranjit Singh evicted the Pathans from Kashmir with the help of the Dogra Army of Jammu. The Sikhs ruled Kashmir till their defeat by the British. Thereafter, Maharaja Gulab Singh of Jammu paid Rs. 75 lakhs to the East India Company in 1846 in exchange for Kashmir and some other areas under a treaty later named as 'Treaty of Amritsar'.

PHYSICAL FEATURES

The total area of the state of Jammu and Kashmir is about 2,22,236 sq. km., of which 78,114 sq. km. are under the illegal occupation of Pakistan and 37,555 sq. km. under China. In addition to this, 5,180 sq. km. of J&K were illegally ceded to China by Pakistan under the March 1963 Sino-Pak Boundary agreement. The state shares a 221- km. international boundary with Pakistan in the Jammu region and 365 km. with China in its Ladakh sector. The line of control (LoC), which divides the Indian and Pak- occupied parts of the state, is 1001-km. long (Jammu - 205 km. Valley - 460 km. and Ladakh/Siachin area -336 km.). The border with China is 465 km. long. Pakistan has annexed the districts of Dianer, Baltistan, Gilgit, Muzaffarabad, Kotii, Mirpur, Poonch and Bagh, which collectively had a population of about 2.5 million (1981 Census). Almost all the people in the Pak-occupied part are Muslims. The Chinese-held territory is called Aksai Chin (meaning *un-inhabited*). According to the 2001 census conducted after 20 years, the size of the Jammu & Kashmir population is 10,069,917, which is 0.98 per cent of the country's total population.

ADMINISTRATIVE DIVISIONS

Kashmir comprises three natural divisions, namely, Jammu, Kashmir and Ladakh. For administrative purposes, the state is divided into two main divisions, i.e., Kashmir and Jammu Provinces. A Divisional Commissioner heads the administration of each division. The two districts of Ladakh region, namely, Leh and Kargil are part of the Kashmir Division for purposes of administration. Prior to 1971, these two provinces consisted of 10 districts only. Between 1971 and 1981, four new

² <http://www.jammu-kashmir.com/basicfacts/tour/regions.html>

districts were created taking the total number of districts in the state to 14. At present, the Kashmir Province comprises the districts of Srinagar, Budgam, Pulwama, Anantnag, Kupwara, Baramulla, Leh and Kargil and the Jammu Province comprises the districts of Jammu, Kathua, Poonch, Rajouri, Udhampur and Doda. A Deputy Commissioner who is also District Development Commissioner, heads each district. In the Ladakh region in 1995, the 'Autonomous Hill Development Council' was established as part of decentralized administration. Annex 1 provides an overview of Jammu and Kashmir in terms of population, literacy rate, number of villages, tehsils, blocks and panchayats and villages electrified and provided with drinking water facilities. There is striking variation as far as the distribution of population among various districts is concerned. The literacy rate also varies from 40.80 per cent in Kupwara to 77.30 per cent in Jammu district. Administratively, the districts are divided into blocks for development purposes and into tehsils for revenue purposes. The state consists of 59 tehsils and 119 blocks spread over 14 districts.

THREE MAIN REGIONS

Jammu and Kashmir is a multi-lingual, multi-religious and multi-racial state and each group has its own distinct and peculiar cultural ethos, further deepened by geographical divisions created by formidable mountain ranges.³ Thus, the state comprises three main regions, namely, Jammu, Kashmir and Ladakh. A brief description of these three regions provides the necessary understanding about each of them.

Jammu Region

This region comprises the plains, hills and mountains south and west of the mighty Pir Panjal range that separates Kashmir Valley from the plains of the subcontinent. Today, the Jammu region comprises the districts of Kathua, Jammu, Udhampur, Doda, Rajouri and Poonch.

Kathua town is situated on the Jammu - Pathankot National Highway at a distance of about 87 km. east of Jammu and about 25 km. west of Pathankot. The district shares its boundary with Punjab in the south, Himachal Pradesh in the east and Udhampur in the north. The geographical area of the district is 2,651 sq. km. with four tehsils namely, Basholi, Bilawar, Kathua and Hiranagar. The literacy rate is 65.29 per cent. The majority of the population of Kathua district is dependent on agriculture. About 80 per cent of agricultural land in the district is non-irrigated.

³ www.jammu-kashmir.com/basicfacts

A large section of the population depends on wage labour and government employment.

Jammu district is extended along the whole length of the international border with Pakistan. It shares its border with Rajouri, Udhampur and Kathua district in the north in the east and in the southeast respectively. The geographical area of the district is 3097 sq. km. with 5 tehsils, namely, Jammu, Samba, Akhnoor, R.S. Pura and Bishnah. The literacy rate stands at 77.3 per cent, which is not only highest among all the districts in the state but higher than the national average. The rural population depends mainly on agriculture. Except for the Kandi area, the land is irrigated and fertile.

Udhampur is the third largest district of Jammu and Kashmir and is situated at an altitude of 2,134 feet above sea level. It is located at a distance of 66 km. from Jammu on the Jammu-Srinagar National Highway. Rajouri bounds the district in the west, Jammu in the southwest, Doda in the east and Kathua in the southeast. It also shares its boundary with Anantnag in the north. The geographical area of the district is 4,550 sq. km. with 5 tehsils, namely, Udhampur, Chenani, Ramnagar, Reasi and Mahore. Literacy rate is 54.16 per cent. The principal occupation of the people is agriculture. There are few industries in the district.

Doda is the largest district in the Jammu region. Doda town, after which the district is named, is situated at an altitude of 5,000 feet above sea level. The Khilani village of the district is situated on the National Highway at about 45 km. from Batot linking the Kashmir valley with Jammu and other parts of the country. The district shares borders with Anantnag district of Kashmir Valley and the Chamba district of Himachal Pradesh. The entire area is hilly. The area of the district is 11,691 sq. km. The district comprises six tehsils, namely, Doda, Kishtwar, Bhaderwah, Gandoh, Ramban and Banihal. The literacy rate is 46.92 per cent. The people in general are poor due to inadequate production of food grains in the district. The majority of the population depends on ration supply through government shops (PDS). The widespread unemployment has further increased after the government banned leasing of forest to the contractors.

Rajouri district was carved out of Poonch district in 1968. It shares a long border from Sunderbani to Bhimbergali with Pakistan occupied Kashmir (PoK) in the west. It is bounded by Udhampur district in the east and by Jammu in the southeast. The northern part of the district consists of hilly terrain. The geographical area of the district is 2,630 sq. km. It comprises of six tehsils, namely, Thanamandi, Rajouri, Budhal, Kalakote Sunderbani and Nowshera. The literacy rate is 57.65 per

cent. About 80 per cent of the population of the district depends on agriculture. There is no industry in the district. Rearing livestock is the main source of income. The economic condition of the people is generally unsatisfactory.

Poonch town, the headquarters of the district by the same name, is situated at a distance of 246 km. northwest of Jammu. The town is at a height of 3,287 feet above sea level. It is surrounded by the Line of Control (LoC) on three sides and is separated from Kashmir Valley by the mighty Pir Panjal range in the north. The geographical area of the district is 1,674 sq. km., comprising three tehsils, viz., Mendhar, Surankote, and Haveli (Poonch). The literacy rate is 51.07 per cent. The people of Poonch district are mainly dependent on agriculture and government jobs. There are no industrial units in the district. The terrain is hilly with little fertile land and therefore there is great dependency on government jobs.

Kashmir Region

The Kashmir region or valley, is a significant part of the state. The valley is an ancient lake basin 140 km. long and 32 km. wide. The average elevation of the valley is 5,300 feet above sea level. The tall mountains that surround the valley rising up to 16,000 feet ensure that the weather here is pleasant for most of the year. Its rich alluvial soil well drained by rivers and streams, yields rice, saffron, vegetables and a variety of fruit. It comprises six districts, namely, Anantnag, Baramulla, Budgam, Kupwara, Pulwama and Srinagar.

Anantnag is the southern most district of the valley. It shares its border with district Pulwama in the west and from south to east it is attached to Rajouri, Udhampur and Doda districts respectively. It borders Kargil in the north. The district is criss-crossed by a network of perennial rivers, streams and waterfalls. The geographical area of the district is 3,984 sq. km. with five tehsils, namely, Pahalgam, Anantnag, Doru, Kulgam and Bijbehara. The literacy rate is 44.10 per cent. Agriculture and livestock rearing are the main sources of livelihood. The district is also well known for traditional handicraft like Gabbas and wooden craft. The district, enriched with perennial streams with clean water has developed commercial fishing activities with a scattering of trout farms. Sericulture industry has earned a good name among all the small household industries in the district.

Baramulla district completely surrounds the district Kupwara and shares the border with PoK at two places in the west as well as in the northeast. The average height of the district is 5187 feet above sea level. It also shares its border with Srinagar,

Budgam and Poonch districts in the south and with Kargil in the east. The district has a flat topography, salubrious climate and scenic beauty. The geographical area of the district is 4,588 sq. km. with six tehsils, namely, Bandipur, Sonawari, Sopore, Baramulla, Gulmarg and Uri. The literacy rate is 44.57 per cent. Bulk of the district's population depends on agriculture for their livelihood. Sopore tehsil is very famous for its apples. Rearing of livestock is one of the important occupations in the district. It has been the first district to generate and provide electricity to large parts of the state from Mohara Power House.

Budgam district was carved out from Srinagar on 1 July, 1979. It is centrally located in the Kashmir valley. It is bounded by Srinagar in the northeast, south and west by Poonch and in the north and northwest by Baramulla. Although the district has several high mountains, its average height is just 5,281 feet above sea level. The geographical area of the district is 1,371 sq. km. with three tehsils, namely, Chadura, Budgam and Beerwah. The literacy rate is 40.94 per cent.

Kupwara district is situated at an altitude of 5,300 feet above sea level and is the northern-most district of the Kashmir valley. It shares a long border with PoK in its north and western side and is totally enclosed by the Baramulla district on the other side. This district is endowed with rich dense forests. The river 'Kishan Ganga' originating from the Himalayas flows through the outer areas of the district from east to west. Some well-known passes located in the district are Gabhra Pass, Sadham Pass and Nastuchan Pass. The geographical area of the district is 2,379 sq. km. with three tehsils, namely, Handwara, Karnah and Kupwara. The literacy rate is 40.80 per cent, the lowest in the state. Although the district is considered deficient in natural irrigation, about 90 per cent of the population depends in one way or other on agriculture for their livelihood. Walnuts are the major horticultural produce in the district. Rearing of livestock is also an important occupation of the people.

Pulwama district came into existence in July 1979. It is situated in the southeastern part of the valley. It shares its borders with Srinagar and Budgam in the northwest and is bounded by the Anantnag district in the south and east. The geographical area of the district is 1,398 sq. km. with three tehsils, namely, Shopian, Pulwama and Tral. The literacy rate is 47.76 per cent. Agriculture is the main source of livelihood in the district. About 0.73 lakhs hectares of land is available for cultivation. Mushroom cultivation and horticulture are of great importance to the economy. Livestock rearing is also an important occupation.

Srinagar district is located to the southeast of Baramulla. It shares its border with

Baramulla, Budgam, Pulwama, Anantnag and Kargil districts from the west to east. The valley is surrounded by the Hurmukh mountain (16,903 feet) in the east, Tosh Maidan (4,000 feet) in the north and Snony Kazi Nag (12,125 feet) in the northwest and also the Mahadev Mountain. The valley is a land of lakes, clear streams, green meadows and magnificent trees. The river Jhelum dissects the district diagonally from the southeast to the northwest. Srinagar is the state's summer capital. The geographical area of the district is 2,228 sq. km. with two tehsils, namely, Srinagar and Ganderbal. The literacy rate is 59.18 per cent. The district is predominantly urban in character. According to the 2001 Census, 79.54 per cent of the total population was urban. It has developed all the characteristics of a tourist paradise, with tremendous growth in the development of handicraft and cottage industries, hotels, houseboats, guest houses and tourist transport. The handicrafts of the district have become famous worldwide. Livestock rearing is another important occupation in the district, engaging about 5.25 per cent of the work force. Animal husbandry and sheep breeding have received special attention. Rice and maize are the main crops of the district.

Ladakh Region

Ladakh constitutes the eastern-most part of the state of Jammu and Kashmir. It comprises two districts, namely, Leh and Kargil. This is one of the most breathtakingly beautiful parts of the state and its surreal landscape has often been termed as 'moonscape'. Ladakh covers about 117,000 sq. km. and includes the Karakoram Range and the upper Indus River valley. Ladakh is one of the highest places on earth with the average altitude being above 12,000 feet. Situated on the leeward side of the mountain, it hardly gets any rain. People live a very traditional life, herding sheep and yak, and growing barley near the riverbeds in summer.

Leh district is the northern as well as the eastern most part of Jammu and Kashmir. It is linked with the Kashmir valley by the Zojila pass (10,098 feet) and forms part of the outer Himalayas. It is one of the highest regions of the earth (altitude 8,800 feet to 18,000 feet approximately) with mountains running along parallel ranges. The climate is very cold and in winter, temperatures dip to minus 40 degrees centigrade. The district is bounded by the international border or LoC with China in the north and east, and with PoK in the north. The geographical area of the district is 45,110 sq. km. with Leh as the district headquarters. The district has two assembly constituencies, namely Nubra and Leh and five blocks namely, Leh, Khaisi, Nubra, Nyoma and Durbuk. The literacy rate is 62.24 percent. Agriculture and animal husbandry are the main

sources of livelihood. Cultivation is possible only during summer; barley, vegetables and fruits like apple and apricot are the main crops. Forestry is also one source of income and Leh abounds in medicinal herbs. This district is the source of origin of pashmina goat which produces fibre used for high quality fabric pashmina wool. The district is also rich in water resources like ponds, streams and rivers, which can be utilised for fisheries.

Kargil town is located at a distance of 204 km from Srinagar almost midway on the Srinagar - Leh National Highway. Most of the villages of the district are located at an average height of 10,000 feet above sea level. It shares the Line of Control (LoC) with PoK in the north and borders with Leh in the east and the Kashmir valley in the west. The geographical area of the district is 14,036 sq. km. The district has two tehsils as well as two assembly constituencies, namely, Kargil and Zaskar. The climate is very cold and in winter, the highway is blocked for more than six months, from December to June every year. The snowfall around the Zojila pass and Drass region is very heavy. The literacy rate is 58.21 per cent. Agriculture is the main occupation and about 91 per cent of the population is engaged in it. Wheat and millet are the major crops. The Baltal-Kargil road, linking Kargil with Srinagar, is the lifeline of the district. Construction of the 230-kms Kargil-Padam and Bodh Khushboochaktan roads is in progress. Tourism is being promoted as an industry after Ladakh was opened to foreign tourists in 1974. Horticulture and forestry are being given special attention.

CLIMATE

Climate exerts a profound influence on the inhabitants of any region. Their social, cultural, economic and other aspects of life are directly or indirectly governed by climate. The climate of the state ranges from the burning and the scorching heat of the plains of (Jammu Division) to the snow-capped heights of Gulmarg (Kashmir) and the mud peak of Mount Godwin Austin (Ladakh) 21,265 feet above sea level, the second highest in the world. All these represent the three different climatic zones.

From alpine (Ladakh region) to the sub tropical (Jammu region) the extreme variants of climate in Jammu and Kashmir are due to its location and topography. The sheltered valley of Kashmir, however, exhibits an exception to its peripheral region. Broadly, the state of Jammu and Kashmir comprises three distinct climatic regions: cold arid desert areas of Ladakh, temperate Kashmir Valley, and the humid sub-tropical region of Jammu. In this context, Lawrence's quotation boldly stands out:

*“Every hundred feet of elevation brings some new phase of climate and the vegetation, and in a short ride of thirty miles one can pass from overpowering heat to climate delightfully cool”.*⁴

The temperature in the region varies spatially. Leh is the coldest (-28°C average) while Jammu is the hottest. Mean monthly temperature is lowest in January and highest in July except in Jammu where highest temperature is experienced in June. Mean monthly temperature in January varies from -17°C at Drass to 14°C at Jammu; Kargil and Leh being other stations of below freezing average. Considering the overall distribution of climatic elements, four units become obvious:

- The windward (Jammu region)
- The leeward (Ladakh region)
- The high altitude Kashmir (Himadri, Pir Panjal),
- The Kashmir valley.

The climate of the valley of Kashmir has its own peculiarities. The seasons are marked with sudden change and the climate can be divided into six seasons of two months each.⁵

Table I.1
Seasons of Kashmir Valley

<i>Season</i>	<i>Dates</i>	<i>Local Terms</i>
Spring	16 March to 15 May	Sont
Summer	16 May to 15 July	Retkol (Grishm)
Rainy Season	16 July to 15 September	Waharat
Autumn	16 September to 15 November	Harud
Winter	16 November to 15 January	Wandah
Ice Cold	16 January 15 March	Shishur

⁴ Lawrence, W.R. “ Valley of Kashmir” p.12

⁵ Raina. A.N.: “Geography of Jammu and Kashmir”, p.50 and Singh. R.L. ed. “India: A Regional Geography” p. 361

The aforementioned climatologic divide does not apply only to Kashmir Valley but to parts of Jammu, which like Kashmir Valley, are subjected to snowfall and a severe winter. Many parts of the Ladakh region are also subjected to heavy snowfall and others to severe dry cold. There is such heavy snowfall on the way to Ladakh from the valley that it remains cut off by road for about 5 - 6 months every year.

PHYSIOGRAPHY

The territory of the state is divided into seven physiographic zones closely associated with the structural components of the western Himalayas. These include: *The Plains*: The plains of the Jammu region are characterized by interlocking sandy alluvial fans that have been deposited during the Pleistocene age by the streams flowing from the foothills and by a much-dissected pediment (eroded bedrock surface) covered by loams and loess (fine deposits of silt).

The Foothills: Rising from 2002 to 7002 feet, the foothills form the outer and inner zones.

The Lesser Himalayas: Composed of Permo-Carboniferous volcanic rocks of granite, gneisses, quartz and slates, the Pir Panjal constitutes the first mountain rampart comprising the western-most part of the Lesser Himalayas.

The Greater Himalayas: This contains ranges reaching more than 20,013 feet (6100 metres) in altitude. These ranges act as a climatic divide and stop the cold wind coming from Central Asia.

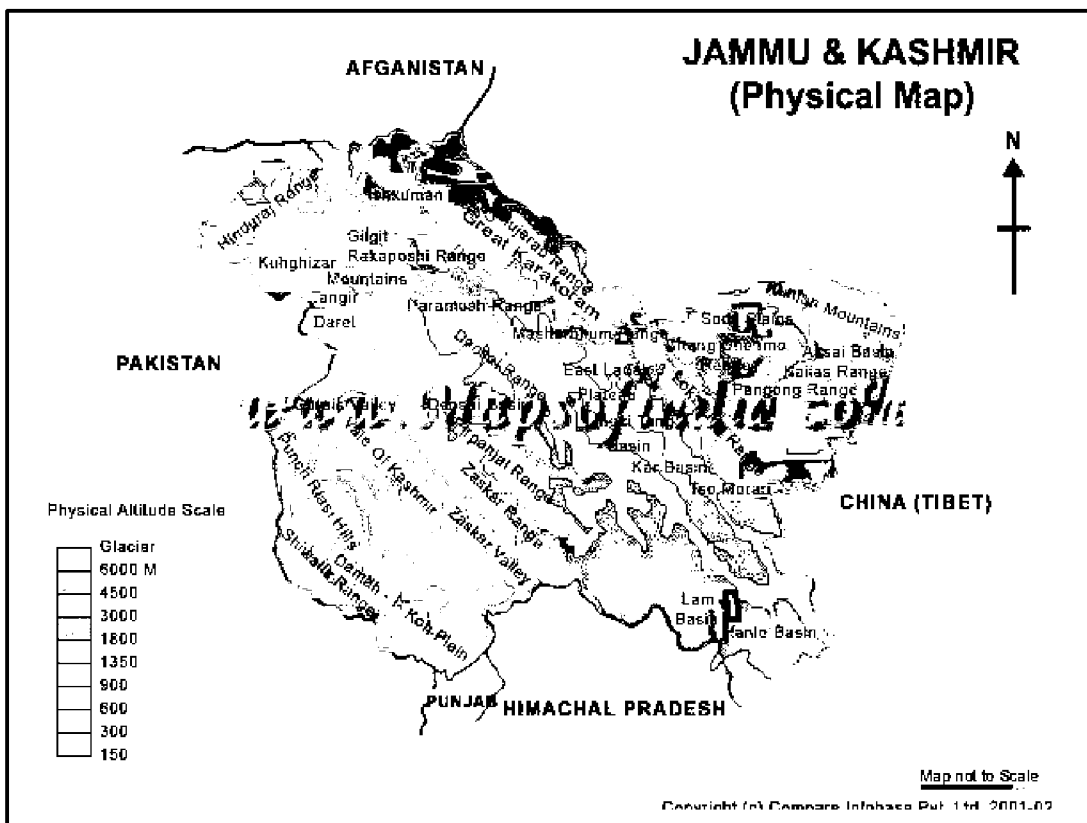
Valley of Kashmir: Between the Pir Panjal and the western end of the Great Himalayan ranges lies a deep asymmetrical basin called the Vale of Kashmir. Lawrence described it as:

*“If one looks at the map of the territories of His Highness the Maharaja of Jammu and Kashmir one sees a white foot-print set in a mass of black mountains. This is the valley of Kashmir, known to its inhabitants as Kashmir”.*⁶

⁶ Lawrence W.R.; “Valley of Kashmir”p.12.

The Upper Indus Valley: The valley of the upper Indus river follows the geological strike (structural trend) westwards from the Tibetan border to the point in the Pakistani sector where it rounds the great mountainous mass of Nanga Parbat to run southwards in deep gorges cut across the strike. In its upper reaches, gravel terraces flank the river; each tributary builds an alluvial fan out into the main valley. The town of Leh stands on such a fan, 11,483 feet (3500 meters) above sea level.

The Karakoram Range: The Karakoram region contains some of the world's highest peaks. As the altitude rises very much and majestic peaks appear; K₂ (Godwin Austin) the second highest peak in the world (28,264 feet or 8,615 metres) occupies the most important position.



Source: www.mapsofindia.com

Besides the complex mountain chain, innumerable rivers, springs and lakes also characterize the region. A brief geographical description follows:

RIVERS

The drainage of the state of Jammu and Kashmir is quite significant as is evident from the following distribution of drainage pattern.⁷

The *Jhelum* is the main waterway of the valley of Kashmir. It rises from a spring called Verinag from where a number of tributaries join the Jhelum and make it navigable from Khannabal to Wular Lake. Its total length in the valley is 177 km.

The *Ravi*, is the smallest of the rivers of the Punjab. The river leaves the Himalayas at Basoli and passes close to Kathua near Madhopur where it enters the plain of the Punjab.

The *Tawi* river, draining the outer hill region, flows around the city of Jammu after collecting drainage to the northeast of Jammu in the interior mountains.

The *Chenab* river rises in the Himalayan contour of Lahul and Spiti. Two streams, more or less parallel, the Chandra and the Bhaga, form the Chandrabhaga, or the Chenab. It drains the eastern section of the southern slope of Pir Panjal.

The *Indus* is another important river, which originates in Tibet near Kashmir border. A considerable portion of this river flows through our neighbouring nations.

LAKES

A number of lakes are found in the State of Jammu and Kashmir. Most of them are of glacial origin. Some of the important lakes of the state are as follows:

The *Wular lake* in Kashmir is the largest freshwater lake in India. It is about 16 km long 9.6 kms wide with ill-defined shores. This lake lies between Bandipore and Sopore at a distance of 75 kms.

The *Dal Lake* is a beautiful lake near Srinagar. It is 8 km. long and 6.4 km. wide. It is the flood-lung of the Jhelum. The famous Mughal gardens are situated around it. Floating gardens found in this lake grow a large variety of vegetables.

The *Anchar Lake* is a swampy area. The Sind Nullah enters this lake from one side and flows out from the other. It is about 8 km. long and 3 km. wide. Gandarbal is a famous township on its northwest bank.

⁷ Raina, AN: "Geography of Jammu and Kashmir"

The *Mansbal Lake* is at a distance of 29 km from Srinagar and is situated at Sopore. It is 5 km. long and 1 km wide. It is connected with Jhelum by a canal near Sumbal.

The *Harwan Lake* is situated at a distance of 21 km. from Srinagar. It is 278 meters long, 137 meters wide and 18 meters deep. This lake is a source of water supply to Srinagar city.

The *Hokarsar Lake* lies on the Baramulla road about 13 km. from Srinagar. It is about 5 km. long and 1.5 km. wide. Willow trees are grown in abundance around its banks.

The *Konsarnag* or *Vishno Pad Lake* is situated in the Pir Panjal range at a height of 13124 feet (4000 meters) above sea level to the south of Shopian. It is about 5 km. long and 3 km. wide and is the source of the river Vishav. It is at a distance of 34 km from Shopian.

The *Gangabal Lake* is situated at a height of 11713 feet (3,570 meters) on the peak of Harmukh Mountain.

The *Sheshnag Lake* is situated near Vavjan, enroute to Shri Amarnath cave. It is at a distance of 28 km. from Pahalgam.

The *Neelang Lake* is situated in tehsil Budgam at a distance of 10 km from Nagam. It is bounded by dense forest.

There are two more lakes – *Tarsar* and *Marsar* that lie on the northern slope of the Harmukh mountain. Marsar Lake is the origin of the canal Sharab Kohl that provides water to the fountains that play in the Mughal Gardens. Marsar Lake flows into the Lidar, which is one of the largest tributaries of Jhelum.

Sokh and *Dokh* are two frozen lakes situated at Harmukh mountain. These are said to be two teardrops of Parvati – one a warm drop indicating happiness and another a cold one showing grief.

The *Pangong* is a salty lake in Ladakh. It is about 6.4 km long and 3.2 to 6.4 km wide at a height of 4,267 m above sea level. The other lakes of Ladakh are *Patlong*, *Thaled*, *Longzang*, *Pangor* and *Tsimoriri*.

SPRINGS

Kashmir Valley abounds in numerous springs of which Verinag (the source of Jhelum), Martand (Anantnag), Achhabal (Anantnag), Kokernag (Anantnag), Chashma

Shahi (famous for its fresh and digestive water situated near Srinagar on one side of the Boulevard road), Tullamulla or Khirbhawani (a sacred spring), Vicharanag, Sukhnag, Vishnosar and Harmukat Ganga in Srinagar area and Chirnagand Vasaknag in Anantnag are very famous.

FLORA AND FAUNA

Flora: Jammu and Kashmir abounds in rich flora (vegetation, forests). The state, described as 'paradise' on earth, is full of many hues of wood and game. The trees present in various enchanting colours through the cycle of the seasons among which the autumnal look is breathtaking. The most magnificent of the Kashmir trees is the *Chinar* found throughout the valley, which grows to gigantic size and girth. Walnut, willow, almond and cider also add to the rich flora of Kashmir. In Kashmir Valley, the well-marked vegetation is willow, which covers the marshy areas only.

Forests: Forests are mainly found where the annual rainfall is about 100 cm. However, scrubs forests are found where rainfall is less than 100 cm. The district wise forest area of 1999-2000 shows that 35640.50 km² of the state's area is under forest (Table I.2).

Table I.2
District wise Forest Area, 1999 - 2000

Districts	Area Under Forest (km ²)		
	Forest Area	Wild Life Area *	Total Forest Area
Anantnag	2068.00	546.75	2614.75
Pulwama	810.00	273.25	1083.25
Srinagar	380.00	311.00	691.00
Budgam	477.00	3.25	480.25
Baramulla	2690.00	384.75	3074.75
Kupwara	1703.00	-	1703.00
Leh @	29.00	13018.00	13047.00
Kargil @	7.00	112.00	119.00
Jammu	959.00	256.50	1215.50
Udhampur	2343.00	42.25	2385.25
Katua	991.00	44.75	1035.75
Doda	5555.00	418.00	5973.00
Rajouri	1267.00	-	1267.00
Poonch	951.00	-	951.00
TOTAL	20230.00	15410.50 (P)	35640.50

Source: Digest of Statistics 1999-2000, Government of Jammu and Kashmir, p.85.

Out of this, more than 99 per cent of the forest area is confined to the province of Jammu and Kashmir only, with the largest area of 5973 km² in the district of Doda and smallest area of 480.25 km² in the district of Budgam. The figures of Leh and Kargil have not been mentioned because it is an estimated figure.

ECONOMIC PROFILE

Agriculture: Jammu and Kashmir State is full of natural resources of great economic potential. The physiographic location imposes a number of constraints, particularly in agriculture and allied sectors. The initial land-use pattern in the state was purely agriculture. It has changed over a period of time to agri-horticultural-silvi-pastoral.⁸ Although the net area sown has remained more or less same - 7.31 lakh hectare in 1990-91 to 7.33 lakh hectare in 1999-2000, the area under fruit and vegetable cultivation has marginally increased over the same period of time. In respect of fruit, it has gone up from 176.30 thousand hectare in 1990-91 to 213.73 thousand hectare in 1998-99. Vegetables have shown a marginal increase, from 14,000 hectare in 1990-91 to 14,930 hectare in 1999-2000.⁹ Rice, the staple crop, is planted in May and harvested in late September. Maize is the second-most important crop. The best soil for maize is reclaimed swamp and enormous crops are raised from the black peaty land, which lies under the banks of river Jhelum. In the high villages occupied by the Gujjar grazers, very fine crops of maize are grown. Other important summer crops are millet, pulses (legumes such as peas, beans and lentils), cotton and tobacco. Wheat and barley are the chief spring crops. Foodgrains production has shown an increase from 13664 thousand quintals in 1990-91 to 15253 quintals in 1998-99.¹⁰ Many temperate fruits are also grown. Large orchards in the vale of Kashmir produce apples, pears, peaches, walnuts, almonds and cherries. In addition, it is the largest producer of saffron in the Indian subcontinent. Artificial floating gardens on the lakes are favourable for the cultivation of flowers and vegetables.

In Ladakh, there is only one cropping season-Kharif, which extends from March to October. Cultivation in Ladakh is restricted to near the main valleys of Indus, Shyok and Suru rivers, where barley, buckwheat, turnips and mustard are grown. Recently, strawberry cultivation has also been introduced in Ladakh. Pastoralism and cattle breeding have long been the vital features of the Ladakh economy. The Kashmir goat raised in the region provides pashmina for the production of fine fabrics.

8 Bio-physical and socio-economic set up in the Indian Upper Himalayas.

9 Indicators of Economic Development, Jammu & Kashmir-1999-2000, Directorate of Economics and Statistics, Planning and Development Department, Jammu and Kashmir, Srinagar.

Industries: The thick forests of Kashmir provide raw material for several industries. Important industries dependent on forests are:

- Poplar wood available in the Valley of Kashmir is mainly used by match industry. A large government match factory was established at Baramulla but it has not been functional for more than a decade.
- Wood of poplar and willow trees is used for making cricket bats and bringi wood is used for making hockey sticks.
- Walnut trees are grown in abundance in Kashmir. Walnut wood is suitable for woodcarving. The carved goods are exported to foreign countries also. Baramulla also manufactures walnut wood rifle-butts.
- At Pampore (Kashmir) and Bari Brahmana (Jammu) plywood, hardboard and chipboard manufacturing factories have been established. Pulp required for the manufacture of hand-made paper, strawboard and cardboard is also obtained from the forests.

Kashmiris have won a great reputation as artisans. The chief center of Kashmiri industries is of course Srinagar, but other localities are famous for their special crafts. Kulgam is famous for its lacquered woodwork and Bijbihara has a reputation for woodcarving. The basket industry is also important and most villages have artisans who make baskets for agricultural purposes. The lacquered work, which had a great reputation, is now declining. The other industries that have developed from the rural crafts include handloom weaving of local silk, cotton, carpet weaving and woodcarving. Such industries together with silver and copper work got impetus in the past by the presence of the royal court and later by the tourist trade; they also owe something to the important position achieved by Srinagar in the west Himalayan trade. Handicraft manufacture is also important in Ladakh, particularly production of pashmina shawls, carpets and blankets.

The state is rich in water resources, which can generate electricity on a large scale. The other natural resources include fruit, timber minerals and herbs which are found in abundance. As far as the social sectors are concerned, education is free for all. The state has two major institutes of higher education, namely, University of Kashmir and University of Jammu. As far as primary and secondary education is concerned, the number of primary and high/higher secondary schools has increased from 9242 and 1220 in 1990-91 to 10515 and 1466 in 1999-2000 respectively. The health sector, hospitals and dispensaries are scattered throughout

10 ibid

the state. Unani is popular in Srinagar, while Amchi is popular in Ladakh. Ladakh has an excellent network of health care delivery system throughout the district. Srinagar has a highly specialised institute of Medical Sciences, founded in 1982. A total of 6466 villages have been covered by safe drinking water by 1999-2000.¹¹

SOCIO-CULTURAL PROFILE

This land of snow-clad mountains, situated in the northernmost side of the Indian Union presents an interesting socio-cultural profile. It is famous for its extravagant natural beauty. This land formed a major caravan route in the ancient times. Trade relations through these routes between China and Central Asia made it a land inhabited by various religious and cultural groups. Kashyapa is said to have laid the foundation of Kashmir. It was during his reign that the various wandering groups led a settled life. Buddhism influenced Kashmir during the rule of Ashoka and the present town of 'Srinagar' was founded by him. The Mughals had a deep influence on this land and introduced various reforms in the revenue sector and other areas that added to the progress of Kashmir. They were also responsible for bringing this land on to the cultural map of the region. In 1820, Maharaja Gulab Singh got the *jagir* of Jammu from Maharaja Ranjit Singh. He is said to have laid the foundation of the Dogra dynasty. In 1846 the Kashmir was sold to Maharaja Gulab Singh. Thus the two areas of Kashmir and Jammu were integrated into a single political unit. A few chieftains,¹² alien races, ethnic groups and various religions have influenced the cultural ethos and mode of life of the people of this region.

The mosaic of the ethnicity of Jammu and Kashmir is complex and the race structure cannot be explained without understanding the pre-historic movements of people. In the process of peopling of the region, the Dards in the northwest, the Ladakhis in the east, the Gujjars in the south and Paharis in the southeast have closely influenced the existing ethnicity of the people. The immigrants from territories of Turkmenia, Tazakistan, Uzbekistan, Kazakhstan, Georgia, Azerbaijan (USSR) Turkey, Iraq and Afghanistan influenced the racial composition of the state.

In order to have deeper understanding of the socio-cultural milieu in general and the people of the state in particular, it will be useful to have a look at the major

11 Indicators of Economic Development, Jammu & Kashmir-1999-2000, Directorate of Economics and Statistics, Planning and Development Department, J&K, Srinagar.

12 History-Jammu and Kashmir at www.webindia123.com/jammu/land/landintro.htm

ethnic groups that inhabit the state. One finds a very good account of these groups in the work *Geography of Jammu & Kashmir* by *Majid Hussain*.¹³ A summarized version of the same is expected to facilitate understanding the people of J&K state. According to him, 'the various ethnic groups of Jammu and Kashmir state though intermingled have their areas of high concentration. For example, Kashmiris are mainly concentrated in the bottom of the valley; Dards occupy the valley of Gurez, Hanjis are confined to water bodies of Kashmir; Gujjars and Bakarwals are living and oscillating in the Kandi areas; Dogras occupy the outskirts of the Punjab plain, while Chibhalis and Paharis live between Chenab and Jhelum rivers. Moreover, there are numerous small ethnic groups like Rhotas, Gaddis and Sikhs which have significant concentration in isolated pockets of the state.

Kashmiris: 'Kashmiri' is a wide term which has loosely been applied for several streams of immigrants mainly from Turkey, Iran, Central Asia and Afghanistan, and settled in the valley. There is close bearing of the Indo-Aryans on the racial composition of the Kashmiris. They are broad shouldered and usually of medium to tall stature. They are much dolichocephic, have a well-developed forehead, a long narrow face, regular features and a prominent straight and finely cut nose. In disposition they are talkative, cheerful and humorous. They make good craftsmen. The influence of Dards, Ladakhis and Punjabis has also moulded the ethos of Kashmiri culture. They are well spread in various parts of the state but their major concentration lies in the Valley, Kishtwar, Doda and Ramban tehsils of Jammu Division.

Dogras: On the outskirts of the Siwaliks facing the plain of Punjab is the habitat of Dogras, a distinctive ethnic group of Jammu Division. They belong to the Aryan race and speak the Dogri language. In appearance, Dogras are short statured, slim and have high shoulders. They have a wheatish complexion, slightly hooked nose, brown eyes and jet black hair.

Dards: Dards have a long history. In the opinion of *Leitner*, Dards belong to the Aryan stock. This opinion is also endorsed by Ray who states that the Dardic Aryans parted from the main Aryan mass just after their entrance into India. Dardic Aryans then colonized the Pamir region from where they spread to Chitral and Gilgit. At present, their major concentration lies in Dardistan (Derdesa) the area to the north of Kashmir Valley, especially in the catchment of Kishanganga north of Sardi, Gurez and Tilel. In physical appearance, the Dards are broad shouldered, moderately stout and have well-proportioned bodies. They are dependent on agriculture, pastoralism, cottage industries and trade.

13 *Geography of Jammu & Kashmir* by Majid Hussain, Rajesh Publications, New Delhi-110002

Ladakhis: Ladakhis are a mixture of Mongoloid and Aryan races. The Aryans who settled originally in the subcontinent's northern parts were the early Buddhist people from Kashmir and the Dards from Gilgit. The Mongolian stock is traced to Tibet. The present-day population of Ladakh is the result of blending together of Dards and the Mongolians. Ladakhis are simple, good natured, cheerful, friendly, industrious and honest. They are seldom angry and make friends easily. In conversation they are very polite. They are well built and have developed sufficient resistance as they work even when the temperature is as low as -25 degrees centigrade.

Gujjars and Bakarwals: They constitute a significant proportion of the population of the state. In general, they are nomadic in character and largely depend on rearing livestock for their livelihood. The diffusion and spread of Gujjars in the state is not known with certainty. According to one account, the arrival of Gujjars in Jammu & Kashmir is attributed to the outbreak of devastating droughts and famines in Rajasthan, Gujarat and Kathiawad, which led to the out migration of these people (Gujjars), who along with their cattle entered the pastures of the Siwaliks and the sub-Himalayas. Their major concentration in the state lies in Jammu, Rajouri, Udhampur, Poonch, Uri, Ganderbal, Anantnag, Daksum and Kandi areas of Jammu and Kashmir Divisions. Although some of them have started settling, they are essentially cattle rearers and a section of them – Bakerwals regularly oscillates between the southern slopes of the Siwaliks and the Margs of the Central Himalayas. The houses of Gujjars and Bakarwals are locally known as *kothas* and *bandis*. It is generally a mud-house against the slope of a hillock. They are mostly followers of Islam except a few who have settled in Bimber, Mirpur and Rajouri. Gujjars are known for their hard work and gentle nature as well as for their traditional tribal songs and the simple tribal pattern that they weave into their clothes. They have subsistence type of economy and try to produce everything they need in their daily life.

Hanjis: Hanjis, the dwellers of water, constitute a significant ethnic group in the valley of Kashmir. They are mainly confined to the Dal, Wular and Anchar lakes and the Jhelum river, especially between Khanabal (Anantnag District) and Chattabal (Srinagar District). They belong to one of the ancient racial groups who were essentially Nishads (boatman). Some of the Hanjis claim to be the descendents of Prophet Noah. They are a sturdy, hard-working active people with great imagination. On the basis of occupation and social status, Hanjis are divisible into (i) Demb-Hanz (vegetable growers), (ii) Gari-Hanz (water-nuts gatherers), (iii) Gad-Hanz (fishermen), (iv) Mata-Hanz (who deal in woods), (v) Dunga-Hanz (owner of passenger boats), (vi) Haka-Hanz (collectors of wood from water bodies), (vii)

Bahatchi-Hanz (who live in Bahatch boats), (viii) Shikara-Hanz (who ply Shikara boats), and (ix) House-boat Hanz. Tourism is an important activity on which many of the Hanjis are dependent.

The constituent units of the state of Jammu and Kashmir still retain many of their distinctive religious, ethnic and linguistic features within the framework of unity. This unity contains heterogeneity and was not lost even when they were incorporated in one or the other empires, namely, Mauryan, Kushan, Mughal, Sikh or British. Today the state symbolises the ethnic, linguistic, cultural and religious diversity of India.¹⁴

¹⁴ www.indianembassy.org/policy/kashmir_MEA/geography.html

CHAPTER II

Demography

INTRODUCTION

The basic objective of development is to improve the quality of life of the people. Yet an analysis of the development process over the last four decades will show that one of the major causes for slow economic and social development in developing economies has been unplanned population growth. Population - its size, growth, composition and quality plays an important role in the development process. There is, however, no clear-cut yardstick to calculate the optimum size and rate of growth of population. A large population undergoing hyper growth in a poor economy with limited resources and rudimentary technology can be a liability. Contrary to this, when a population is productively employed, it can be an asset and a resource.

India is poised to emerge as a world political and economic power. Stabilization of population therefore is the most important factor. Table II.1 shows the growth of population in India since 1951.

Table II.1
Growth of Population in India, 1951-2001

Year	Population	Decadal Growth	
		Absolute	Per cent
1951 ¹	361088090	42427510	13.31
1961 ¹	439234771	78146681	21.64
1971	548159652	108924881	24.80
1981 ²	683329097	135169445	24.66
1991 ³	843387888	163058791	23.86
2001 ⁴	1027015247	180627359	21.34

Source: Census of India, 2001

Notes:

1. In working out decadal growth and percentage decadal growth for India 1941-51 and 1951-61 the population of Tuensang district for 1951 (7025) and the population of Tuensang (83501) and Mon (5774) districts for 1961 Census of Nagaland state have not been taken into account as the areas were censused for the first time in 1951 and the same are not comparable.
2. Figures for 1981 of Assam have been worked out by interpolation.
3. Figures for 1991 of Jammu & Kashmir have been worked out by interpolation.
4. The population of India includes the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamanagar district of Gujarat state and entire Kinnaur district of Himachal Pradesh where population enumeration of Census of India 2001 could not be conducted due to natural calamity.

Though in absolute terms there has been an increase of 180627359 people between 1991 and 2001, the growth rate of population shows a decline. Since 1981 onwards, the growth of population shows a decreasing trend, from 24.66 in 1981 to 23.86 in 1991 and 21.34 in 2001. The growth of population is an important indicator that describes both the present time and the future of the population. Population that grows fast today is also a young population, which means important economic investments for the future. In India 15 per cent (Table II.2) of the population is in the age-group of 0-6 years, while in J&K only it is 14 per cent.

Table II.2
Child Population in the Age-Group 0-6, 2001

State/Country	Total	Male	Female
India	157863145 (15.4)	81911041 (15.5)	75952104 (15.4)
Jammu & Kashmir	14311182 (14.2)	738839 (13.9)	692343 (14.5)

Source: Census of India 2001.

Note: Figures in parentheses indicate percentage.

POPULATION GROWTH IN JAMMU AND KASHMIR

According to the 2001 census the state is administratively divided into two provinces – Kashmir, comprising 8 districts (including 2 districts of Ladakh region) and Jammu province having 6 districts.¹ Prior to the 1981 census there were 10 districts in the state. During the period of ten years from 1971 to 1981 four new districts were created. These are:

1. *Pulwama* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Shupiyani, Pulwama and Tral tehsils, previously in Anantnag district, having a population of 3,14,158).
2. *Badgam* (created, vide Govt. order no. SRO-306 dated 6-6-1979, comprising Chadura, Badgam and Beerwah tehsils, previously in Srinagar district, having a population of 2,69,033).
3. *Kupwara* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Handwara, Kamah and Kupwara tehsils, previously in Baramulla district, having a population of 2,57,824).
4. *Kargil* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Kargil and Zaskar tehsils, previously in Leh (Ladakh) district having a population of 53,400).

Source: Census of India 1981, Series 8 Jammu & Kashmir, Part IIA, General Population Tables

¹ Census of India 2001, Series 2, J&K, Provisional Population Totals, Paper-1 of 2001, p.15

The population figures presented here have been adjusted according to the 14 districts formed between 1971 and 1981. According to the 2001 census the size of Jammu and Kashmir's population is 10,069,917 i.e., 0.98 per cent of the all India figure of 1,027,015,247. Its geographical area is 222,236 sq. km.² and accounts for 6.76 per cent of the country's size. The state has witnessed a fluctuating population growth rate since 1901. Since the size and growth of population has serious implications for development, it will be useful to have a retrospective view. We will examine the population trend since the beginning of this century using the census data. The calculated growth rates are given in Table II.3. It reveals that throughout the period 1901-2001 population growth of the state has been quite low. The accentuated growth rate is recorded only after 1960s. Figure 1 shows this sudden spurt in population from 9.44 per cent in 1951-61 to 29.65 percent in 1961-71.

Table II.3
Population Growth in Jammu and Kashmir 1901- 2001

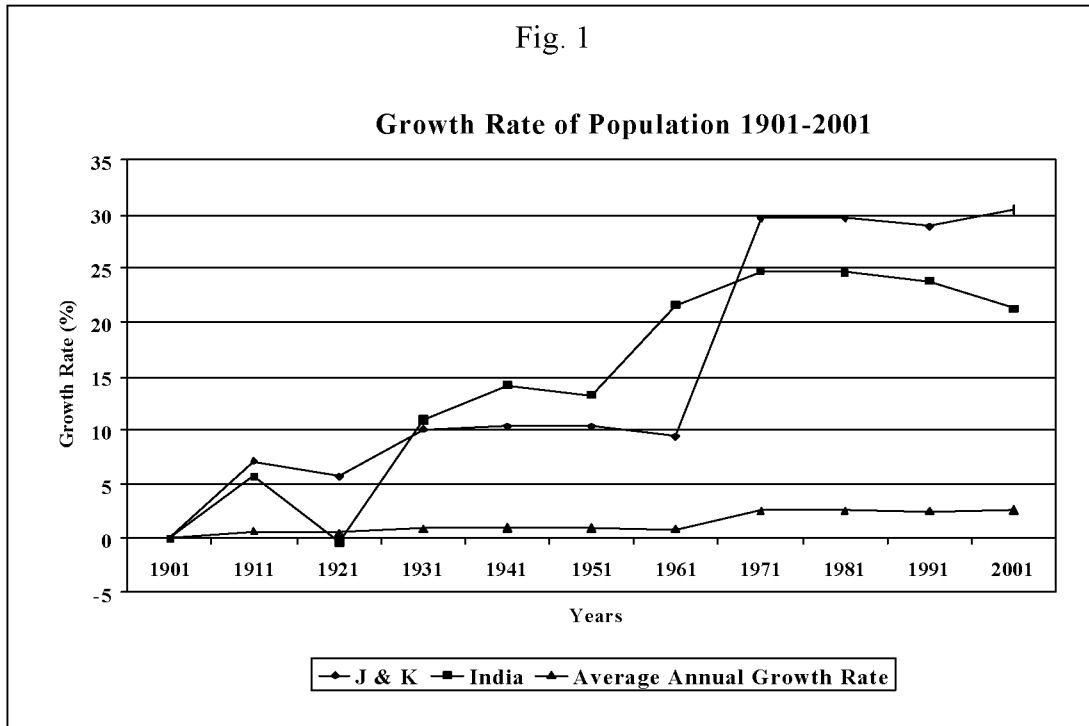
Year	Population	Absolute Change	Decadal Variation		Average Annual Growth Rate
			J & K	India	
1901	2139362	0	0	0	0
1911	2292535	153173	7.16	5.75	0.69
1921	2424359	131824	5.75	-0.31	0.56
1931	2670208	245849	10.14	11.00	0.97
1941	2946728	276520	10.36	14.22	0.99
1951 [#]	3253852	307124	10.42	13.31	1.00
1961	3560976	307124	9.44	21.64	0.91
1971	4616632	1055656	29.65	24.80	2.63
1981	5987389	1370757	29.69	24.66	2.63
1991*	7718700	1731311	28.92	23.86	2.57
2001	10069917	2351217	30.46	21.34	2.69

Source: Census of India, Jammu and Kashmir 2001.

- # There was no census in 1951. The figure given by the Census department is the authentic mean of 1941 and 1961 population.
- * The 1991 census was not held in J&K. The population of India includes the projected population of J&K as on 1.3.1991 made by the Standing Committee of Experts on population projections (Oct.1989). The projected population of J & K excludes the population of area under occupation of Pakistan and China.

2 Includes 78,114 sq. km under occupation of Pakistan; 5180 sq. km. handed over to China by Pakistan; 37,555 sq. km. under occupation of China in Leh district.

Fig. 1



The beginning of the century, i.e, the decade 1901-1911 also witnessed breakouts of cholera three times in the Kashmir division, followed by pneumonia, both of which took a heavy toll of life. It also witnessed three floods and eight earthquakes. In Jammu division also, plague, enteric fever and famine remained active throughout this period. The following decade also witnessed four dangerous epidemics like influenza, cholera and smallpox in Kashmir and plague and smallpox in Jammu. During the decade 1921-31, there was a severe famine in the Jammu division followed by cholera, small pox and plague in the state. The census year 1931 marks a watershed in the demographic history of the state with a discernible change between the decades since 1931. This can be attributed to the fact that the general population itself has grown rapidly through natural increase; this growth has occurred in all regions and affected almost all population groups in the towns and villages. Table II.4 and Figure2 reveal the district-wise growth of population between 1951 and 2001.

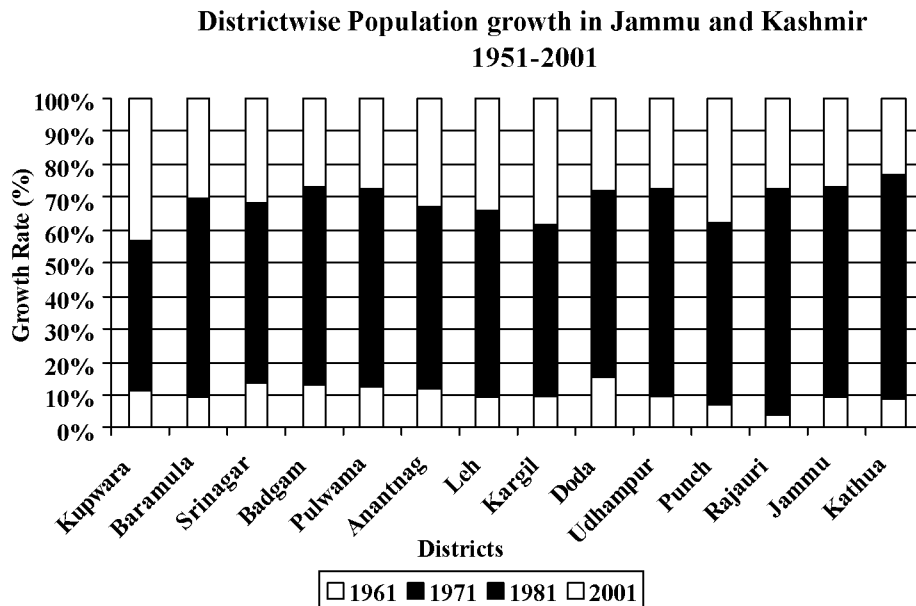
Table II.4
District wise Population Growth in Jammu and Kashmir

S. No.	Districts	1951	1961	1971	1981	2001
1	Kupwara	187076 (-)	204073 (0.87)	257824 (2.37)	328743 (1.28)	640013 (3.39)
2	Baramulla	359526 (-)	392192 (0.87)	512250 (2.71)	670142 (2.72)	1166722 (2.81)
3	Srinagar	390828 (-)	440135 (1.20)	564314 (2.52)	708328 (2.30)	1238530 (2.83)
4	Badgam	189881 (-)	213918 (1.20)	269033 (2.32)	367262 (3.16)	593768 (2.43)
5	Pulwama	223444 (-)	247659 (1.03)	314158 (2.41)	404078 (2.55)	632295 (2.26)
6	Anantnag	362209 (-)	401461 (1.03)	518122 (2.58)	656351 (2.39)	1170013 (2.93)
7	Leh	40484 (-)	43587 (0.74)	51891 (1.76)	68380 (2.80)	117637 (2.75)
8	Kargil	41856 (-)	45064 (0.74)	53400 (1.71)	65992 (2.14)	115227 (2.83)
9	Doda	229876 (-)	262473 (1.33)	342220 (2.69)	425262 (2.20)	690474 (2.45)
10	Udhampur	238197 (-)	260396 (0.90)	342715 (2.79)	453636 (2.84)	738965 (2.47)
11	Punch	147489 (-)	154532 (0.47)	170787 (1.01)	224197 (2.76)	371561 (2.56)
12	Rajauri	177789 (-)	171529 (0.36)	217373 (2.40)	302500 (3.36)	478595 (2.32)
13	Jammu	469557 (-)	513151 (0.89)	724822 (3.51)	943395 (2.67)	1571911 (2.59)
14	Kathua	195640 (-)	210806 (0.75)	277723 (2.80)	369123 (2.89)	544206 (1.96)
	Jammu & Kashmir	3253852 (-)	3560976 (0.91)	4616632 (2.63)	5987389 (2.63)	10069917 (2.63)

Source: Census of India., 1951, 1961, 1971, 1981 and 2001

Note: Figures in parentheses indicate Average Annual Growth Rate.

Fig. 2



Source: Census of India, 1951, 1961, 1971, 1981 and 2001

During 1981-2001, the average annual population growth in all the districts was more than 2 per cent. The districts of Kupwara, Baramulla, Srinagar, Anantnag, Leh and Kargil had average growth rates above the state average of 2.63 per cent. But it is interesting to note that, in as many as eight districts, viz., Badgam, Pulwama, Leh, Poonch, Rajauri, Udhampur, Jammu and Kathua, the growth rate recorded between 1981 and 2001 was lower than the one recorded between 1971 and 1981. During 1951-1961 only 5 districts had an annual growth rate of population of more than 1 per cent. However, there was an increase in all the districts during the next decade, which continued thereafter. Except in the districts of Leh, Kargil and Poonch the growth rate was quite high in the 1961 - 1971 decade.

Population growth is contributed by rural-urban composition and their growth rates. Table II.5 presents the average annual growth rate for the period 1901-2001.

The highest annual growth rate in respect of rural population was recorded in 1971-1981 at 5.53 per cent. The decadal growth rate was also as high as 71.37 per cent. The district-wise distribution shows that the maximum number of districts had more than 2 per cent growth rate. The eight districts in this category in 1961-71 increased to twelve in 1971-81, and between 1981 and 2001 the number was ten.

Table II.5
Rural Population Growth in Jammu and Kashmir 1901- 2001

Year	Population	Absolute Change	Decadal Variation	Average Annual Growth Rate
1901	1980614	0	0	0
1911	2024017	43403	2.19	0.22
1921	2156605	132588	6.55	0.64
1931	2352403	195798	9.08	0.87
1941	2560163	207760	8.83	0.85
1951	2796639	236476	9.24	0.89
1961	2967661	171022	6.12	0.60
1971	2758411	-209250	-7.05	0.73
1981	4726986	1968575	71.37	5.53
1991	No Census	No Census	No Census	No Census
2001	7564608	2837622	60.03*	2.38*

Source: Census of India 2001, J&K, Series-2, Paper-2 of 2001, Rural-Urban Distribution of Population.

Note: * 2001 figures are based on the calculations of the 1981-2001 census.

Table II.6
District-wise Rural Population Growth in Jammu and Kashmir

Districts	Population				
	1951	1961	1971	1981	2001
Kupwara	187076 (--)	204073 (0.87)	252799 (2.16)	319055 (2.35)	614678 (3.37)
Baramulla	326998 (--)	334828 (0.24)	451032 (3.02)	580376 (2.55)	969048 (2.60)
Srinagar	140104 (--)	148282 (0.57)	152919 (0.31)	138133 (1.02)	253357 (3.08)
Badgam	189881 (--)	210687 (1.05)	257175 (2.01)	315377 (2.06)	558599 (2.90)
Pulwama	213255 (--)	236086 (1.02)	291275 (2.12)	367799 (2.36)	579185 (2.30)
Anantnag	340210 (--)	367461 (0.77)	466771 (2.42)	586065 (2.30)	1001528 (2.71)
Leh	36938 (--)	39867 (0.76)	46372 (1.52)	59662 (2.55)	90124 (2.08)
Kargil	41856 (--)	45064 (0.74)	51010 (1.25)	62465 (2.05)	105283 (2.64)
Doda	222630 (--)	246983 (1.04)	322684 (2.71)	400088 (2.17)	638665 (2.37)
Udhampur	224522 (--)	243979 (0.83)	314296 (2.56)	410389 (2.70)	620744 (2.09)
Punch	138087 (--)	144336 (0.44)	156984 (0.84)	210026 (2.95)	348119 (2.56)
Rajauri	174467 (--)	165369 (0.54)	208976 (2.37)	286667 (3.21)	445171 (2.22)
Jammu	375079 (--)	385375 (0.27)	533480 (3.31)	663751 (2.21)	873237 (1.38)
Kathua	185536 (--)	195271 (0.51)	252638 (2.61)	327133 (2.62)	466870 (1.79)
Jammu & Kashmir	1796639 (--)	2967661 (5.14)	3758411 (2.39)	4726986 (2.32)	7564608 (2.38)

Source: Census of India 1981, 2001

Note: Figures in parentheses indicate Average Annual Growth Rate.

As can be observed from Table II.6, the growth of the rural population in the districts has increased steadily over the period. During 1981-2001 the rate of growth of rural population was quite high. Kupwara and Srinagar district had more than 3 per cent average annual growth rate. All other districts, except Jammu and Kathua, had more than 2 per cent growth rate during the same period.

Demographic Situation in Jammu and Kashmir

The growth of population may be due to both natural growth and migration. The difference between birth rate (BR) and death rate (DR) gives the estimate of natural growth rate (NGR). These rates are measured per thousand populations. Table II.7 and Figure 3 presents such data available for rural and urban sectors at four points of time, viz., 1988, 1989, 1990 and 1998.

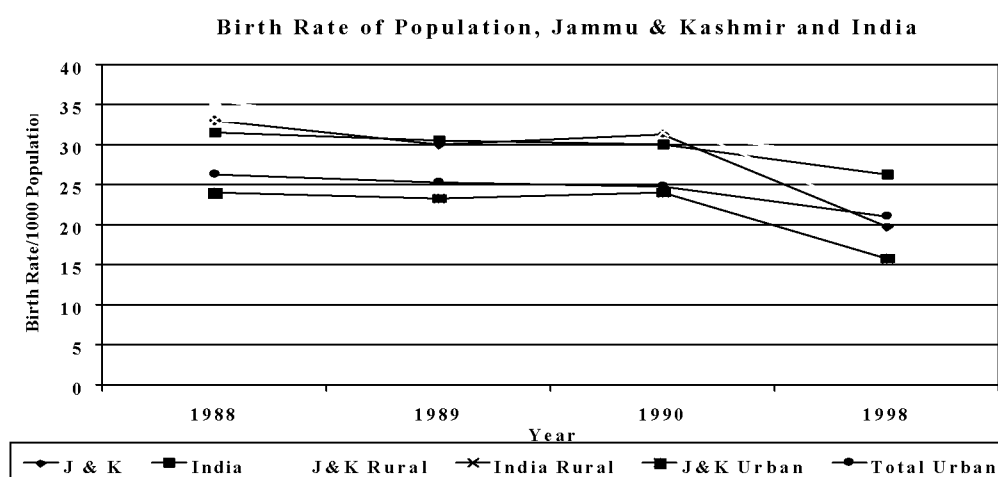
Table II.7
Birth Rate and Death Rate of Population in Jammu and Kashmir 1988-1998

T/R/U	1988		1989		1990		1998		1988		1989		1990		1998	
	Birth rate/1000 Population						Death Rate / 1000 Population									
	J & K	Ind*	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind
Total	33.1	31.5	30.1	30.6	31.4	30.2	19.8	26.4	8.4	11.0	7.6	10.3	7.9	9.7	5.4	9.0
Rural	35.5	33.1	31.8	32.2	33.3	31.7	20.8	28.0	9.1	12.0	7.9	11.1	N.A	10.5	5.6	9.7
Urban	24.0	26.3	23.3	25.2	24.1	24.7	15.8	21.0	6.0	7.7	6.4	7.2	N.A	6.8	4.4	6.6

Note: Ind* is India.

Source: Health Information of India 1997 and 1998, Central Bureau of Health Intelligence.

Fig. 3



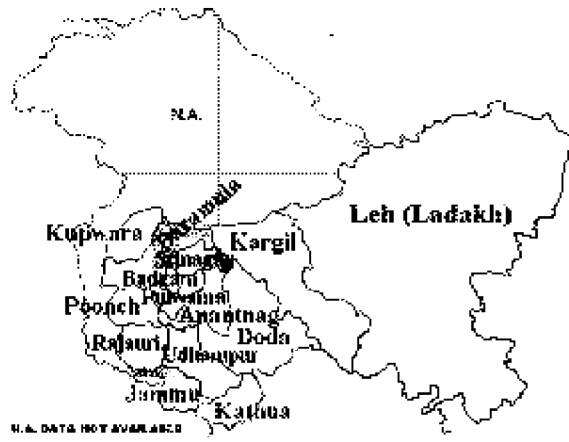
Source: Health Information of India 1997 and 1998, Central Bureau of Health Intelligence.

It is seen from the table that both birth and death rates have declined in the state. From 33.1-births/1000 populations in 1988 the number declined to 19.8-births/1000 populations in 1998. Similarly, death rates have declined from 8.4/1000 populations to 5.4/1000 populations. In the rural areas birth rate is considerably higher than in the urban areas. But the pace of decline in the rural birth rate values accelerated between 1990 and 1998 i.e., from 33.3 to 20.8-birth/1000 population respectively. The difference in the rural and urban death rate values also became reduced between 1988 and 1998 from 11.58/1000 population in 1988 between the rural and urban areas, to as low as 5 in 1998. This means that health care facilities have reached the villages. Moreover, the most encouraging fact is that both the birth and death rates in the state remained quite below the national average.

POPULATION DISTRIBUTION IN JAMMU AND KASHMIR: A DISTRICT PROFILE

The distribution of population reveals striking variation at the district level. According to 2001 figures the accentuation of population is mostly found in the districts of Baramulla, Srinagar, Anantnag and Jammu (Table II.4). Figure 4 shows the concentration of population in Jammu and Kashmir.

Fig. 4
District -wise Distribution of Population 2001



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Distribution of Population



Source: Census of India, 2001

The distribution of population since 1951 shows almost the same trend. The aforementioned four districts had the maximum share of population with the maximum proportion in Jammu district. In 1951, seven districts had 5-10 per cent of the state population. Due to the decline in the share of population in Rajauri district, in 1961 and 1971, six districts remained in the category of having 5-10 per cent of the state's population. In Poonch district, due to the impact of militancy, concentration of people has shown decline from 4.53 per cent in 1951 to 3.69 per cent in 2001. In Leh and Kargil district only a little more than one per cent of the population is found. Undulating topography and harsh climate has restrained people from settling there.

Table II.8
District-wise Distribution of Population in Jammu and Kashmir

Districts	1951	1961	1971	1981	2001
Kupwara	5.75	5.73	5.58	5.49	6.36
Baramulla	11.05	11.01	11.10	11.19	11.59
Srinagar	12.01	12.36	12.22	11.83	12.30
Badgam	5.84	6.01	5.83	6.13	5.90
Pulwama	6.87	6.95	6.80	6.75	6.28
Anantnag	11.13	11.27	11.22	10.96	11.62
Leh	1.24	1.22	1.12	1.14	1.17
Kargil	1.29	1.27	1.16	1.10	1.14
Doda	7.06	7.37	7.41	7.10	6.86
Udhampur	7.32	7.31	7.42	7.58	7.34
Poonch	4.53	4.34	3.70	3.74	3.69
Rajauri	5.46	4.82	4.71	5.05	4.75
Jammu	14.43	14.41	15.70	15.76	15.61
Kathua	6.01	5.92	6.02	6.17	5.40
Jammu & Kashmir	100.00	100.00	100.00	100.00	100.00

Source: Calculated from the census data of 1971, 1981 and 2001.

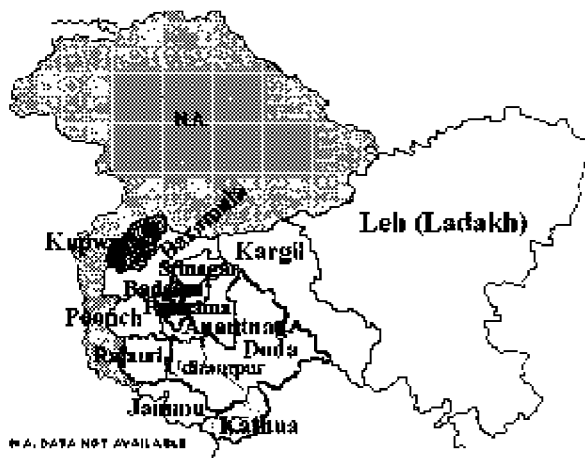
The concentration of population is related to the growth of population as well. There is also a great deal of variation in the rate of growth of population in terms of spatial dimension. A large number of districts experienced an average annual growth rate ranging between 2.50 per cent to 3 per cent in 2001 (Table II.9). Most of these districts form a pocket surrounding Srinagar district. Figure 5 depicts the concentration of population according to the variations in population growth.

Table II.9
Inter-district variations in average annual population growth rate
in Jammu and Kashmir, 2001

Average Annual Growth Rate	Number of Districts	Name of Districts
> 3.00	1	Kupwara
2.50 – 3.00	7	Baramulla, Srinagar, Anantnag, Leh, Kargil, Punch, Jammu
2.00 – 2.50	5	Badgam, Pulwama, Doda, Udhampur, Rajauri
< 2.00	1	Kathua

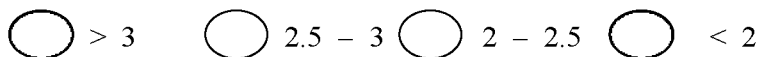
Source: Compiled from Table II.8

Fig. 5



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Average Annual Growth Rate



Source: Table II. 9

POPULATION STRUCTURE AND DISTRIBUTION IN JAMMU AND KASHMIR

The age structure of the population is one of the most important demographic characteristics. Fertility, mortality and migration of a given population affect and in turn are affected by the age structure. An analysis of the age structure throws light on the future trends of population growth, i.e., places with a greater proportion of the older age groups have a low rate of natural increase, while places with a greater proportion in the younger age groups have a high rate of natural increase.

Table II. 10
Age-group-wise distribution of Rural and
Urban Population in Jammu and Kashmir

Age-Group	Total/ Rural/ Urban	1971			1981		
		Person	Male	Female	Person	Male	Female
All Ages	T	100.00	100.00	100.00	100.00	100.00	100.00
	R	100.00	100.00	100.00	100.00	100.00	100.00
	U	100.00	100.00	100.00	100.00	100.00	100.00
0 — 14	T	42.90	41.55	44.43	40.99	39.77	42.36
	R	43.18	41.87	44.67	42.00	40.75	43.40
	U	41.65	40.16	43.38	37.21	36.15	38.43
15 — 19	T	8.56	8.74	8.35	10.39	10.51	10.26
	R	8.13	8.35	7.88	9.97	10.19	9.73
	U	10.41	10.39	10.42	11.97	11.70	12.27
20 — 24	T	7.76	7.71	7.81	8.37	8.38	8.36
	R	7.49	7.34	7.64	7.94	7.89	7.98
	U	8.96	9.31	8.55	10.00	10.18	9.79
25 — 29	T	7.78	7.44	8.16	7.62	7.40	7.85
	R	7.72	7.31	8.18	7.38	7.15	7.65
	U	8.03	7.99	8.08	8.48	8.36	8.62
30 — 39	T	13.01	12.79	13.25	12.19	12.08	12.31
	R	13.03	12.79	13.30	12.00	11.85	12.17
	U	12.92	12.82	13.04	12.95	13.04	12.85
40 — 49	T	9.11	9.60	8.55	9.10	9.38	8.79
	R	9.12	9.59	8.58	9.00	9.25	8.72
	U	9.08	9.61	8.46	9.48	9.86	9.05
50 — 59	T	5.34	5.94	4.65	5.57	6.04	5.04
	R	5.42	6.06	0.00	5.62	6.10	5.08
	U	4.95	5.40	0.20	5.38	5.83	4.87
60 +	T	5.55	6.22	0.82	5.75	6.42	5.01
	R	5.91	6.67	5.86	6.09	6.84	5.25
	U	3.99	4.30	22.40	4.51	4.86	4.11
Age Not Stated	T	0.00	0.01	0.67	N.A.	N.A.	N.A.
	R	0.00	0.00	0.00	N.A.	N.A.	N.A.
	U	0.01	0.02	0.01	N.A.	N.A.	N.A.

Source: Census of India 1971 and 1981

The economic consequences of the age structure are important because the young $\frac{3}{4}$ old distribution directly affects the distribution of the community resources particularly in terms of education and retirement benefits. The age-sex structure is generally represented in the form of a pyramid. A glance at Table II.10 shows that the area has had a fairly stable population, as was indicated by the heavy base and narrow top. More than 40 per cent of the population is in the age group of 0 -14 and 57 per cent of the population is in the three age groups of 0-14, 15-19 and 60 and above, both in 1971 and 1981. The remaining 43 per cent are in the productive age group. This indicates that the burden of dependency is high. During 1971-81, the growth in the 0-14 age group was 24 per cent (Table II.11) and 57.49 per cent

in the 15-19 age group. This high growth shows that employment opportunity in the potential sectors needs to be created for this growing population.

Table II.11
Age group-wise Growth rate of the Population in Jammu and Kashmir

Age-Group	1971			1981			1971-81		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
All Ages	4616632	2458315	2158317	5987389	3164660	2822729	29.69	28.73	30.78
0-14	1980438	1021405	959033	2454303	1258555	1195748	23.93	23.22	24.68
15-19	395028	214782	180246	622120	332629	289491	57.49	54.87	60.61
20-24	358192	189613	168579	501095	265145	235950	39.90	39.83	39.96
25-29	359051	182944	176107	455958	234284	221674	26.99	28.06	25.87
30-39	600524	314510	286014	729876	382306	347570	21.54	21.56	21.52
40-49	420558	235948	184610	545098	296922	248176	29.61	25.84	34.43
50-59	246357	145977	100380	333489	191246	142243	35.37	31.01	41.70
60+	256287	153002	17599	344565	203065	141500	34.44	32.72	704.02
Age Not Stated	197	134	14428	N.A	N.A	N.A	N.A	N.A	N.A

Source: Census of India, Jammu and Kashmir, 1971 and 1981.

SEX RATIO AND ITS VARIATION IN JAMMU AND KASHMIR

A distinctive feature of the population in India relates to imbalance in sex ratio, which remains mostly tilted towards men. Table II.12 shows the sex ratio in Jammu and Kashmir since 1951. The figures show that though there has been a marginal increase in the sex ratio over the period, it is still below the national average. In 2001, eight districts had sex ratio above the state average and only Pulwama with 938 females per 1000 males was above the national average.

Table II. 12
Sex Ratio in Jammu & Kashmir 1951-2001

Districts	1951	1961	1971	1981	2001
Kupwara	874	882	841	858	929
Baramulla	858	853	851	870	909
Srinagar	846	852	852	873	871
Badgam	838	840	845	880	918
Pulwama	843	848	850	896	938
Anantnag	853	867	847	888	922
Leh	1011	1010	1002	886	805
Kargil	970	935	949	853	901
Doda	904	901	886	904	905
Udhampur	907	912	908	906	871
Punch	905	902	903	889	916
Rajauri	911	900	900	906	891
Jammu	870	886	920	918	881
Kathua	896	905	921	917	907
Jammu & Kashmir	873	878	878	892	900
India	946	941	930	934	933

Source: Census of India, 1981 and 2001

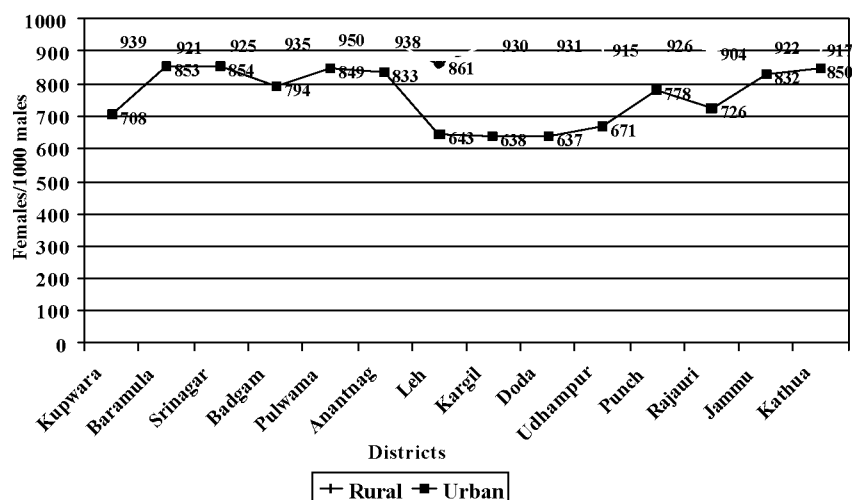
Table II. 13
Rural and Urban Sex Ratio 2001

(Females per 1000 males)

Districts	Rural	Urban
Kupwara	939	708
Baramulla	921	853
Srinagar	925	854
Badgam	935	794
Pulwama	950	849
Anantnag	938	833
Leh	861	643
Kargil	930	638
Doda	931	637
Udhampur	915	671
Punch	926	778
Rajauri	904	726
Jammu	922	832
Kathua	917	850
Jammu & Kashmir	927	822

Source: Census of India 2001

Fig. 6
Rural and Urban Sex Ratio, 2001



Source: Census of India, 2001

It is not just that the sex ratio for the state as a whole is 900; the difference between the rural and urban sex ratio is also quite high. Table II.13 and Figure 6 show the differences between the rural and urban sex ratio in the districts. The maximum difference is noticed in Doda and Kargil districts where the difference is as high as almost 300 females between the rural and urban areas. As many as eight districts in 2001 had a sex ratio lower than the state average. It is very important

to note that the districts having influence of the urban agglomerations of Srinagar and Jammu have a better sex ratio compared to other districts. In other districts, it can be assumed that male members have migrated to cities where employment opportunities are better compared to the villages. Figure 6 reveals that the sex ratio for all the districts is better in the rural areas. Jammu, Kathua, Baramulla and Srinagar have little difference between the rural and urban sex ratio. Except in Leh, the rural sex ratio in all the districts of the state is above the total state sex ratio.

LITERACY

According to the 2001 census, 54.46 per cent of the population is literate in Jammu and Kashmir. The national literacy rate for the same period is 65.38 per cent. Jammu and Kashmir ranks thirty-three among the states and UTs of India, and is followed only by Jharkhand (54.13 per cent) and Bihar (47.53 per cent). Table II.14 shows the changing pattern of literacy in Jammu and Kashmir since 1981.

Table II.14
Literacy Rate in Jammu and Kashmir

Total/Rural/Urban	Persons		Males		Females	
	1981	2001	1981	2001	1981	2001
Total	30.64	54.46	41.46	65.75	18.37	41.82
Rural	25.01	48.22	36.35	60.34	12.19	35.09
Urban	51.12	72.17	59.87	80.30	41.05	62.22

Source: Census of India, 2001, Jammu & Kashmir.

It is depicted by the table that literacy rate in the state has made substantial progress but still lags far behind the national average. The literacy rate among the males in rural areas has increased from 36.35 per cent in 1981 to 60.34 per cent in 2001. Similarly, the literacy rate among the female is higher in rural areas where an almost three-fold increase was recorded as against the urban areas. The literacy rate of rural and urban areas of the constituent districts is given in Table II.15.

Among the rural areas, Jammu district tops the table with 71.95 per cent literacy followed by Kathua with 62.64 per cent. Surprisingly, Srinagar district falls at the bottom. This is due to the impact of the militancy. All the districts affected by militancy have a low literacy rate. The districts of Rajauri and Poonch have topped the urban literacy rate while Badgam remains at the bottom with 57.11 per cent in urban areas. Out of the 14 districts, six districts have a higher literacy rate than the state average of 54.46 per cent.

Table II.15
District-wise Literacy Rate in Rural and Urban areas

Districts	Total/Rural/Urban	1981			2001		
		Persons	Males	Females	Persons	Males	Females
Kupwara	T	16.82	27.07	4.88	40.80	53.55	26.83
	R	16.32	26.53	4.43	39.84	52.54	26.10
	U	33.45	44.63	20.16	62.88	73.82	46.81
Baramulla	T	20.62	30.24	9.57	44.57	56.39	31.42
	R	17.51	27.15	6.44	41.00	53.06	27.79
Srinagar	U	40.73	50.23	29.82	61.24	71.38	49.14
	T	33.90	41.97	24.66	59.18	68.85	47.97
	R	14.24	22.98	4.35	36.06	47.32	23.73
Badgam	U	38.66	46.53	29.62	65.09	74.16	54.40
	T	17.86	26.51	8.02	40.94	52.51	28.14
	R	14.63	23.05	5.07	38.09	49.46	25.78
Pulwama	U	37.49	47.41	26.09	57.11	72.83	46.87
	T	20.47	30.56	9.21	47.76	59.24	35.40
	R	19.12	29.19	7.88	45.78	57.09	33.77
Anantnag	U	34.10	44.53	22.55	63.57	75.59	49.24
	T	22.93	33.58	10.94	44.10	55.56	31.51
	R	20.75	31.51	8.62	41.04	52.37	28.80
Leh (Ladakh)	U	41.14	50.88	30.23	61.50	72.62	47.93
	T	25.17	36.76	12.09	62.24	71.98	50.03
	R	22.30	33.84	9.63	56.47	66.73	44.56
Kargil	U	44.79	54.83	31.09	81.64	87.24	72.47
	T	18.86	32.26	3.14	58.21	73.58	40.96
	R	17.59	30.69	2.33	55.88	71.58	38.92
Doda	U	41.31	58.57	18.54	81.22	90.18	66.54
	T	18.50	28.59	7.34	46.92	63.56	28.36
	R	16.20	26.30	5.07	43.68	60.60	25.39
Udhampur	U	55.08	63.80	44.75	83.69	91.75	70.61
	T	23.52	32.55	13.55	54.16	66.43	39.89
	R	19.47	28.79	9.20	47.59	60.41	33.49
Poonch	U	61.96	67.87	55.31	86.35	91.93	77.77
	T	23.39	34.20	11.24	51.07	65.41	35.30
	R	21.03	32.19	8.47	48.31	63.13	32.22
Rajauri	U	58.46	64.17	52.08	88.84	94.15	81.91
	T	24.73	34.16	14.32	57.65	69.64	44.14
	R	22.81	32.23	12.47	55.33	67.61	41.76
Jammu	U	59.49	67.50	49.75	86.72	92.67	78.38
	T	42.86	52.60	32.24	77.30	84.92	68.75
	R	35.74	46.62	24.05	71.95	81.42	61.85
Kathua	U	59.75	66.45	52.19	83.79	88.94	77.64
	T	31.91	41.67	21.25	65.29	75.73	53.92
	R	29.12	39.01	18.37	62.64	73.71	50.71
	U	53.56	62.10	44.00	80.73	87.05	73.38

Source: Census of India, 2001

DENSITY OF POPULATION

The population density of the state reflects the variation in population growth.

Table II.16
Population Density in Jammu and Kashmir

Districts	Area (sq. kms)	Population		Density	
		1981	2001	1981	2001
Kupwara	2379.0	328743	640013	138	269
Baramulla	4588.0	670142	1166722	146	254
Srinagar	2228.0	708328	1238530	318	556
Badgam	1371.0	367262	593768	268	433
Pulwama	1398.0	404078	632295	289	452
Anantnag	3984.0	656351	1170013	165	294
Leh*	45110.0	68380	117637	2	3
Kargil	14036.0	65992	115227	5	8
Doda	11691.0	425262	690474	36	59
Udhampur	4550.0	453636	738965	100	162
Punch	1674.0	224197	371561	134	222
Rajauri	2630.0	302500	478595	115	182
Jammu	3097.0	943395	1571911	305	508
Kathua	2651.0	369123	544206	139	205
Jammu & Kashmir	222236.0	5987389	10069917	27	99
India	3287263	685184692	1027015247	208	324

Source: Census of India 1981 and 2001.

*Area of Leh (Ladakh) district in Jammu and Kashmir excludes area under illegal occupation of China and Pakistan.

All figures are provisional.

The district-wise density figures show that between 1981 and 2001 all the districts recorded an increase in population density. Srinagar and Jammu district has the highest population density followed by Pulwama and Badgam. Agglomeration of people depends on certain characteristics such as economic conditions, spatial linkages, efficacy of public and private transport and location. Conditions in the four districts are favourable for population concentration while on the other hand Leh, Kargil and Doda have very little population. The physiographic condition of these areas prohibited population concentration. Moreover, the state's total geographical area of 222,236 sq km. an area of 78,114 sq. km. is under illegal occupation of Pakistan and 5,180 sq. km illegally handed over by Pakistan to China. Apart from this, 37,555 sq. km is under illegal occupation of China in Leh district of Ladakh region.³ Of the remaining area of 101,387 sq. km., 58.3 per cent falls in the Ladakh region with the result that Leh has lowest density of 3 persons per sq. km, followed by Kargil district with 8 persons per sq. km. as per the 2001 census.

³ Census of India 2001, Jammu & Kashmir Series-2, Paper-2 of 2001 Rural-Urban Distribution of Population, p.ix.

DEMOGRAPHY AND DEVELOPMENT IN JAMMU AND KASHMIR

The concept of Human Resources Development could be elucidated in a number of ways. In a general sense, it is the process of increasing knowledge, skills and the capacities of all the people in a society. Human resources are an asset, required not only for exploiting the natural resources and for improving the productive capacity of the people, but for enhancing their own welfare. It can become a liability if not properly managed/ contained.

The following is an attempt is made to analyze the human resource development scenario in Jammu and Kashmir. Table II.17 provides some selected indicators. Its analysis shows that poor level of social and economic development is one of the major causes of poor human resource development.

Table II. 17
Development Scenario in Jammu and Kashmir as Compared to India

Dimension and Variables	India	Jammu and Kashmir	
		Level	Rank
<i>Population Structure and Distribution</i>			
Population Density, 2001 (Persons per sq. km)	324	99	31
<i>Status of Women</i>			
Sex Ratio, 2001 (Females per 1000 males)	933	900	26
Female Literacy Rate, 2001	54.16	41.82	33
<i>Agriculture</i>			
Net Sown Area 1996-97 (Hectare)	142819	733	16
Net Sown Area Irrigated 1996-97 (Hectare)	55143	313	16
Value of agriculture production, 1995 (Rupees per capita)	N.A	1125	N.A
<i>Industrialization and Urbanization</i>			
Proportion of Urban Population, 2001 (Per Cent)	27.78	24.88	20
Industries per lakh of population, 1999	13	4	19
Per Capita Electricity Consumption (1997-98 (Kwh)	349.1	223.7	20
<i>Social Development</i>			
Population below Poverty line, 1993-94 (Per Cent)	35.97	25.17	23
Work Participation rate, 2001 (Per Cent)			
Literacy Rate, 2001 (Per Cent)	65.38	54.46	33

Sources: Census of India, 2001 and Statistical Abstract of India, 1999.

Jammu and Kashmir is one of those states in the country where both the demographic situation and level of socio-economic development remains far from satisfactory. During the decade 1991-2001, the decadal growth rate in the state was 30.46 per cent and average annual growth rate 2.69 per cent per year. This growth rate was the eighth highest in the country, next only to the four Union territories (Dadra & Nagar Haveli, Daman & Diu, Delhi and Chandigarh) and small states of Nagaland, Sikkim and Manipur. This growth in the state can be largely due to the prevailing high fertility.

According to 1997-98 information, the state ranks seventeenth in terms of per capita Net State Domestic Product. In terms of industries per lakh population, the state ranks nineteenth and in terms of literacy its rank is thirty-three. In terms of Net Sown Area irrigated, it ranks sixteen.

It shows that the situation in respect of socio-economic progress is no better in the state. It is important to note that both social and economic development and demographic situation are actually multi-dimensional processes and each dimension of development as well as demographic change has its own specific determinants.

DEMOGRAPHIC CHALLENGES AND OPPORTUNITIES

The population growth rate in the state has been consistently high. The population recorded in the 2001 census (10069917) was higher than the projected population of 2001 with figures based on the 1971 census (Annex 3). The population is expected to grow to 12031825 in 2015 and to 13809601 in 2025. It is necessary to estimate the probable future size of the state so that associated factors having implications on its development and the quality of life are understood. The additions to population put tremendous pressure on the social and economic front. The challenges of population growth are felt in different sectors. The following paragraphs bring out some of these challenges.

INFRASTRUCTURE AND ECONOMY

An increasing population in the face of already scarce resources and land can only result in diminishing returns in the absence of increase in other factors such as capital, better-trained labour and technological innovation. Higher level of the necessary investment is necessary to achieve a given average output. More capital will be required to support, even at the subsistence level, an increased number of mouths to feed. This includes factory buildings, machines and other tools; social overheads such as roads and school buildings, irrigation projects, residential and

office construction and investment in human beings. This is essential if there is to be no decline in the people's standard of living. More than a decade of militancy has damaged developmental infrastructure in the state. It is, therefore, essential that demographic challenges be kept to the minimum so that necessary infrastructure is reinstated, to stabilize economy. It has therefore, to receive highest priority in development planning.

DEPENDENT POPULATION

A rising population decreases the ability of the state to save, as the dependency ratio is high. A major part of the population consists of young persons between ages of 0 and 14 years and old people within the age bracket 60 and over, the so-called non-productive ages. It calls for a major effort in producing food and other consumer goods for these non-productive dependants.

HEALTH

The rate of growth of the population has important implications for the health services. With the large number of women (805194 females in 1981⁴) in the age group of 20-39 the fertility level would remain at its present high level and the population will increase. It needs to be mentioned here that in the 2001 census, 47 per cent of the total population consisted of females. During 1989 the number of beds/1000 population was only 5. This indicates the general magnitude of the problem, which means that increased number of hospital beds will be needed to maintain the same bed/1000 population ratio. A similar problem is faced in respect of doctors, medical assistants and nurses. The cost of such an expansion therefore is naturally very high. Moreover, the demand for medical services depends on the age composition as well as the size of the population. In the state, more than 5 per cent of the population is above the age group of 60 years. Therefore, in order to ensure that the standard of health remains good, an investment in preventive and related social services including housing and education will be essential.

EDUCATION

With the decadal growth rate of 21.34 per cent between 1991-2001 it can be assumed that there is a large addition to school going age population, which calls for more investment. More than 50 per cent of the population forms the school going age-group. With the existing facilities for education it will be difficult to

4 1981 census data has been quoted as 2001 age-sex data was not available.

accommodate them unless necessary expansion is undertaken in a planned manner. Moreover, demand for university education has also been stimulated by the larger number of children of white-collar parents seeking advanced degrees and the growing market demand for more skilled workers. It will be necessary to make adequate investment in the education sector.

RECOMMENDATIONS

- The recommendations of the National Population Policy, 2000 should be adopted by the state government, as it is an essential requirement for promoting sustainable development with more equitable distribution. The State Population Commission of J&K should formulate specific strategies towards this direction.
- Promote collaborative arrangements with private sector health professionals, NGOs and the public sector, to increase awareness about population stabilization and aid the government in the provision and outreach of basic reproductive and child health care and basic education.
- The local government institutions i.e., the panchayats and municipalities should be motivated to promote small family norms by achieving reductions in infant mortality and birth rates and promote literacy with completion of middle-level schooling.

CHAPTER II

Demography

INTRODUCTION

The basic objective of development is to improve the quality of life of the people. Yet an analysis of the development process over the last four decades will show that one of the major causes for slow economic and social development in developing economies has been unplanned population growth. Population - its size, growth, composition and quality plays an important role in the development process. There is, however, no clear-cut yardstick to calculate the optimum size and rate of growth of population. A large population undergoing hyper growth in a poor economy with limited resources and rudimentary technology can be a liability. Contrary to this, when a population is productively employed, it can be an asset and a resource.

India is poised to emerge as a world political and economic power. Stabilization of population therefore is the most important factor. Table II.1 shows the growth of population in India since 1951.

Table II.1
Growth of Population in India, 1951-2001

Year	Population	Decadal Growth	
		Absolute	Per cent
1951 ¹	361088090	42427510	13.31
1961 ¹	439234771	78146681	21.64
1971	548159652	108924881	24.80
1981 ²	683329097	135169445	24.66
1991 ³	843387888	163058791	23.86
2001 ⁴	1027015247	180627359	21.34

Source: Census of India, 2001

Notes:

1. In working out decadal growth and percentage decadal growth for India 1941-51 and 1951-61 the population of Tuensang district for 1951 (7025) and the population of Tuensang (83501) and Mon (5774) districts for 1961 Census of Nagaland state have not been taken into account as the areas were censused for the first time in 1951 and the same are not comparable.
2. Figures for 1981 of Assam have been worked out by interpolation.
3. Figures for 1991 of Jammu & Kashmir have been worked out by interpolation.
4. The population of India includes the estimated population of entire Kachchh district, Morvi, Maliya-Miyana and Wankaner talukas of Rajkot district, Jodiya taluka of Jamanagar district of Gujarat state and entire Kinnaur district of Himachal Pradesh where population enumeration of Census of India 2001 could not be conducted due to natural calamity.

Though in absolute terms there has been an increase of 180627359 people between 1991 and 2001, the growth rate of population shows a decline. Since 1981 onwards, the growth of population shows a decreasing trend, from 24.66 in 1981 to 23.86 in 1991 and 21.34 in 2001. The growth of population is an important indicator that describes both the present time and the future of the population. Population that grows fast today is also a young population, which means important economic investments for the future. In India 15 per cent (Table II.2) of the population is in the age-group of 0-6 years, while in J&K only it is 14 per cent.

Table II.2
Child Population in the Age-Group 0-6, 2001

State/Country	Total	Male	Female
India	157863145 (15.4)	81911041 (15.5)	75952104 (15.4)
Jammu & Kashmir	14311182 (14.2)	738839 (13.9)	692343 (14.5)

Source: Census of India 2001.

Note: Figures in parentheses indicate percentage.

POPULATION GROWTH IN JAMMU AND KASHMIR

According to the 2001 census the state is administratively divided into two provinces – Kashmir, comprising 8 districts (including 2 districts of Ladakh region) and Jammu province having 6 districts.¹ Prior to the 1981 census there were 10 districts in the state. During the period of ten years from 1971 to 1981 four new districts were created. These are:

1. *Pulwama* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Shupiyani, Pulwama and Tral tehsils, previously in Anantnag district, having a population of 3,14,158).
2. *Badgam* (created, vide Govt. order no. SRO-306 dated 6-6-1979, comprising Chadura, Badgam and Beerwah tehsils, previously in Srinagar district, having a population of 2,69,033).
3. *Kupwara* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Handwara, Kamah and Kupwara tehsils, previously in Baramulla district, having a population of 2,57,824).
4. *Kargil* (created vide Govt. order no. SRO-306 dated 6-6-1979, comprising Kargil and Zanskar tehsils, previously in Leh (Ladakh) district having a population of 53,400).

Source: Census of India 1981, Series 8 Jammu & Kashmir, Part IIA, General Population Tables

¹ Census of India 2001, Series 2, J&K, Provisional Population Totals, Paper-1 of 2001, p.15

The population figures presented here have been adjusted according to the 14 districts formed between 1971 and 1981. According to the 2001 census the size of Jammu and Kashmir's population is 10,069,917 i.e., 0.98 per cent of the all India figure of 1,027,015,247. Its geographical area is 222,236 sq. km.² and accounts for 6.76 per cent of the country's size. The state has witnessed a fluctuating population growth rate since 1901. Since the size and growth of population has serious implications for development, it will be useful to have a retrospective view. We will examine the population trend since the beginning of this century using the census data. The calculated growth rates are given in Table II.3. It reveals that throughout the period 1901-2001 population growth of the state has been quite low. The accentuated growth rate is recorded only after 1960s. Figure 1 shows this sudden spurt in population from 9.44 per cent in 1951-61 to 29.65 percent in 1961-71.

Table II.3
Population Growth in Jammu and Kashmir 1901- 2001

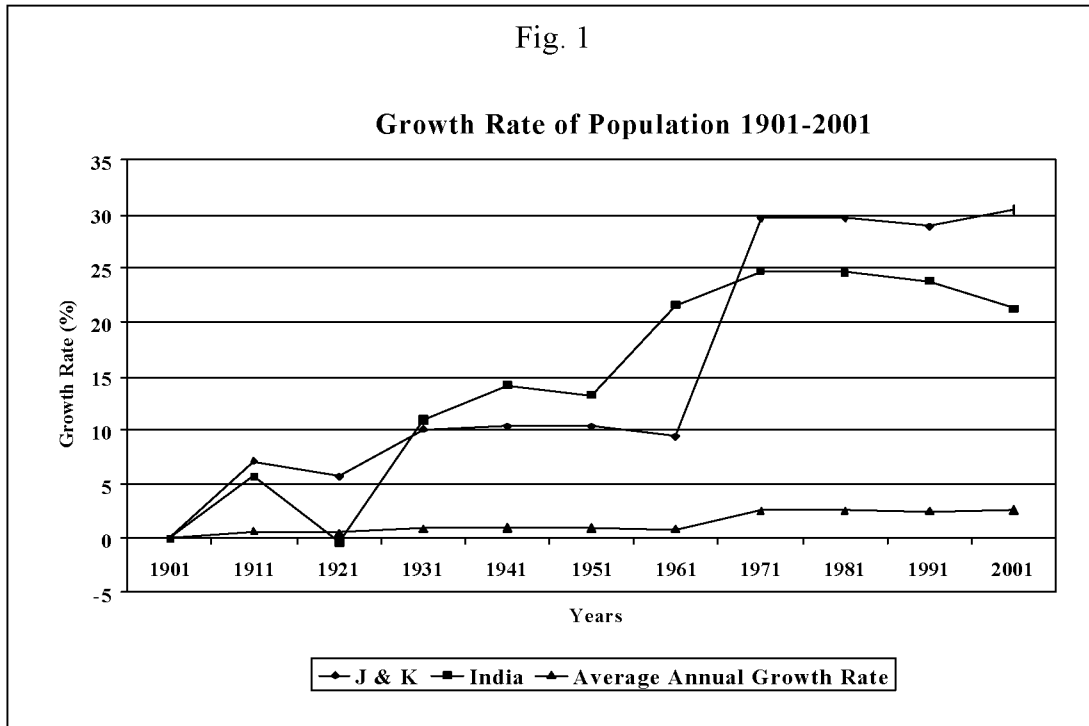
Year	Population	Absolute Change	Decadal Variation		Average Annual Growth Rate
			J & K	India	
1901	2139362	0	0	0	0
1911	2292535	153173	7.16	5.75	0.69
1921	2424359	131824	5.75	-0.31	0.56
1931	2670208	245849	10.14	11.00	0.97
1941	2946728	276520	10.36	14.22	0.99
1951 [#]	3253852	307124	10.42	13.31	1.00
1961	3560976	307124	9.44	21.64	0.91
1971	4616632	1055656	29.65	24.80	2.63
1981	5987389	1370757	29.69	24.66	2.63
1991*	7718700	1731311	28.92	23.86	2.57
2001	10069917	2351217	30.46	21.34	2.69

Source: Census of India, Jammu and Kashmir 2001.

- # There was no census in 1951. The figure given by the Census department is the authentic mean of 1941 and 1961 population.
- * The 1991 census was not held in J&K. The population of India includes the projected population of J&K as on 1.3.1991 made by the Standing Committee of Experts on population projections (Oct.1989). The projected population of J & K excludes the population of area under occupation of Pakistan and China.

2 Includes 78,114 sq. km under occupation of Pakistan; 5180 sq. km. handed over to China by Pakistan; 37,555 sq. km. under occupation of China in Leh district.

Fig. 1



The beginning of the century, i.e, the decade 1901-1911 also witnessed breakouts of cholera three times in the Kashmir division, followed by pneumonia, both of which took a heavy toll of life. It also witnessed three floods and eight earthquakes. In Jammu division also, plague, enteric fever and famine remained active throughout this period. The following decade also witnessed four dangerous epidemics like influenza, cholera and smallpox in Kashmir and plague and smallpox in Jammu. During the decade 1921-31, there was a severe famine in the Jammu division followed by cholera, small pox and plague in the state. The census year 1931 marks a watershed in the demographic history of the state with a discernible change between the decades since 1931. This can be attributed to the fact that the general population itself has grown rapidly through natural increase; this growth has occurred in all regions and affected almost all population groups in the towns and villages. Table II.4 and Figure2 reveal the district-wise growth of population between 1951 and 2001.

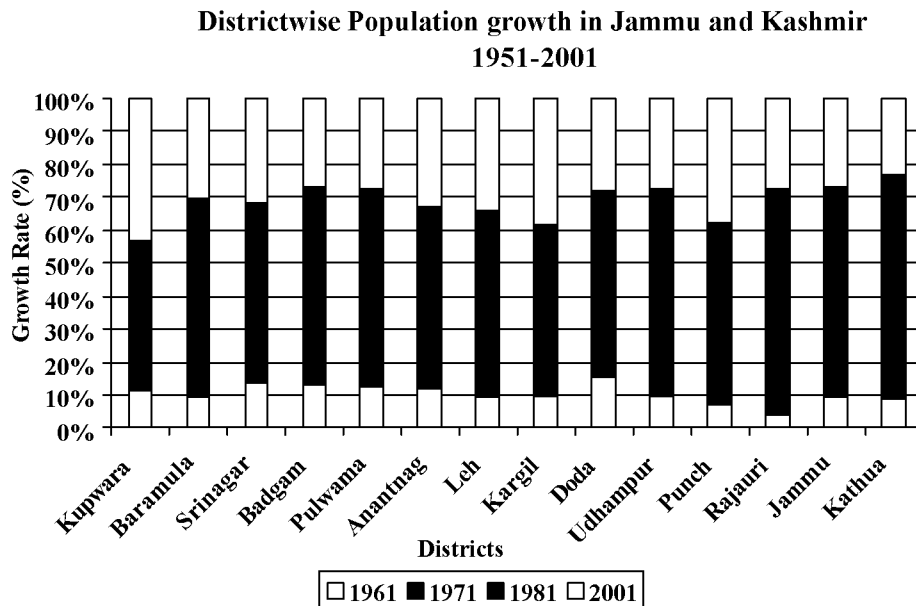
Table II.4
District wise Population Growth in Jammu and Kashmir

S. No.	Districts	1951	1961	1971	1981	2001
1	Kupwara	187076 (-)	204073 (0.87)	257824 (2.37)	328743 (1.28)	640013 (3.39)
2	Baramulla	359526 (-)	392192 (0.87)	512250 (2.71)	670142 (2.72)	1166722 (2.81)
3	Srinagar	390828 (-)	440135 (1.20)	564314 (2.52)	708328 (2.30)	1238530 (2.83)
4	Badgam	189881 (-)	213918 (1.20)	269033 (2.32)	367262 (3.16)	593768 (2.43)
5	Pulwama	223444 (-)	247659 (1.03)	314158 (2.41)	404078 (2.55)	632295 (2.26)
6	Anantnag	362209 (-)	401461 (1.03)	518122 (2.58)	656351 (2.39)	1170013 (2.93)
7	Leh	40484 (-)	43587 (0.74)	51891 (1.76)	68380 (2.80)	117637 (2.75)
8	Kargil	41856 (-)	45064 (0.74)	53400 (1.71)	65992 (2.14)	115227 (2.83)
9	Doda	229876 (-)	262473 (1.33)	342220 (2.69)	425262 (2.20)	690474 (2.45)
10	Udhampur	238197 (-)	260396 (0.90)	342715 (2.79)	453636 (2.84)	738965 (2.47)
11	Punch	147489 (-)	154532 (0.47)	170787 (1.01)	224197 (2.76)	371561 (2.56)
12	Rajauri	177789 (-)	171529 (0.36)	217373 (2.40)	302500 (3.36)	478595 (2.32)
13	Jammu	469557 (-)	513151 (0.89)	724822 (3.51)	943395 (2.67)	1571911 (2.59)
14	Kathua	195640 (-)	210806 (0.75)	277723 (2.80)	369123 (2.89)	544206 (1.96)
	Jammu & Kashmir	3253852 (-)	3560976 (0.91)	4616632 (2.63)	5987389 (2.63)	10069917 (2.63)

Source: Census of India., 1951, 1961, 1971, 1981 and 2001

Note: Figures in parentheses indicate Average Annual Growth Rate.

Fig. 2



Source: Census of India, 1951, 1961, 1971, 1981 and 2001

During 1981-2001, the average annual population growth in all the districts was more than 2 per cent. The districts of Kupwara, Baramulla, Srinagar, Anantnag, Leh and Kargil had average growth rates above the state average of 2.63 per cent. But it is interesting to note that, in as many as eight districts, viz., Badgam, Pulwama, Leh, Poonch, Rajauri, Udhampur, Jammu and Kathua, the growth rate recorded between 1981 and 2001 was lower than the one recorded between 1971 and 1981. During 1951-1961 only 5 districts had an annual growth rate of population of more than 1 per cent. However, there was an increase in all the districts during the next decade, which continued thereafter. Except in the districts of Leh, Kargil and Poonch the growth rate was quite high in the 1961 - 1971 decade.

Population growth is contributed by rural-urban composition and their growth rates. Table II.5 presents the average annual growth rate for the period 1901-2001.

The highest annual growth rate in respect of rural population was recorded in 1971-1981 at 5.53 per cent. The decadal growth rate was also as high as 71.37 per cent. The district-wise distribution shows that the maximum number of districts had more than 2 per cent growth rate. The eight districts in this category in 1961-71 increased to twelve in 1971-81, and between 1981 and 2001 the number was ten.

Table II.5
Rural Population Growth in Jammu and Kashmir 1901- 2001

Year	Population	Absolute Change	Decadal Variation	Average Annual Growth Rate
1901	1980614	0	0	0
1911	2024017	43403	2.19	0.22
1921	2156605	132588	6.55	0.64
1931	2352403	195798	9.08	0.87
1941	2560163	207760	8.83	0.85
1951	2796639	236476	9.24	0.89
1961	2967661	171022	6.12	0.60
1971	2758411	-209250	-7.05	0.73
1981	4726986	1968575	71.37	5.53
1991	No Census	No Census	No Census	No Census
2001	7564608	2837622	60.03*	2.38*

Source: Census of India 2001, J&K, Series-2, Paper-2 of 2001, Rural-Urban Distribution of Population.

Note: * 2001 figures are based on the calculations of the 1981-2001 census.

Table II.6
District-wise Rural Population Growth in Jammu and Kashmir

Districts	Population				
	1951	1961	1971	1981	2001
Kupwara	187076 (--)	204073 (0.87)	252799 (2.16)	319055 (2.35)	614678 (3.37)
Baramulla	326998 (--)	334828 (0.24)	451032 (3.02)	580376 (2.55)	969048 (2.60)
Srinagar	140104 (--)	148282 (0.57)	152919 (0.31)	138133 (1.02)	253357 (3.08)
Badgam	189881 (--)	210687 (1.05)	257175 (2.01)	315377 (2.06)	558599 (2.90)
Pulwama	213255 (--)	236086 (1.02)	291275 (2.12)	367799 (2.36)	579185 (2.30)
Anantnag	340210 (--)	367461 (0.77)	466771 (2.42)	586065 (2.30)	1001528 (2.71)
Leh	36938 (--)	39867 (0.76)	46372 (1.52)	59662 (2.55)	90124 (2.08)
Kargil	41856 (--)	45064 (0.74)	51010 (1.25)	62465 (2.05)	105283 (2.64)
Doda	222630 (--)	246983 (1.04)	322684 (2.71)	400088 (2.17)	638665 (2.37)
Udhampur	224522 (--)	243979 (0.83)	314296 (2.56)	410389 (2.70)	620744 (2.09)
Punch	138087 (--)	144336 (0.44)	156984 (0.84)	210026 (2.95)	348119 (2.56)
Rajauri	174467 (--)	165369 (0.54)	208976 (2.37)	286667 (3.21)	445171 (2.22)
Jammu	375079 (--)	385375 (0.27)	533480 (3.31)	663751 (2.21)	873237 (1.38)
Kathua	185536 (--)	195271 (0.51)	252638 (2.61)	327133 (2.62)	466870 (1.79)
Jammu & Kashmir	1796639 (--)	2967661 (5.14)	3758411 (2.39)	4726986 (2.32)	7564608 (2.38)

Source: Census of India 1981, 2001

Note: Figures in parentheses indicate Average Annual Growth Rate.

As can be observed from Table II.6, the growth of the rural population in the districts has increased steadily over the period. During 1981-2001 the rate of growth of rural population was quite high. Kupwara and Srinagar district had more than 3 per cent average annual growth rate. All other districts, except Jammu and Kathua, had more than 2 per cent growth rate during the same period.

Demographic Situation in Jammu and Kashmir

The growth of population may be due to both natural growth and migration. The difference between birth rate (BR) and death rate (DR) gives the estimate of natural growth rate (NGR). These rates are measured per thousand populations. Table II.7 and Figure 3 presents such data available for rural and urban sectors at four points of time, viz., 1988, 1989, 1990 and 1998.

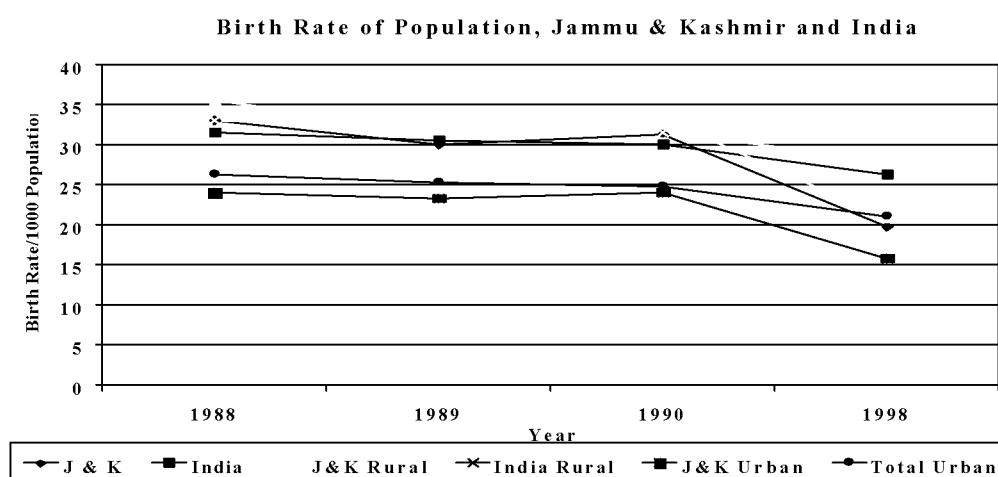
Table II.7
Birth Rate and Death Rate of Population in Jammu and Kashmir 1988-1998

T/R/U	1988		1989		1990		1998		1988		1989		1990		1998	
	Birth rate/1000 Population						Death Rate / 1000 Population									
	J & K	Ind*	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind	J & K	Ind
Total	33.1	31.5	30.1	30.6	31.4	30.2	19.8	26.4	8.4	11.0	7.6	10.3	7.9	9.7	5.4	9.0
Rural	35.5	33.1	31.8	32.2	33.3	31.7	20.8	28.0	9.1	12.0	7.9	11.1	N.A	10.5	5.6	9.7
Urban	24.0	26.3	23.3	25.2	24.1	24.7	15.8	21.0	6.0	7.7	6.4	7.2	N.A	6.8	4.4	6.6

Note: Ind* is India.

Source: Health Information of India 1997 and 1998, Central Bureau of Health Intelligence.

Fig. 3



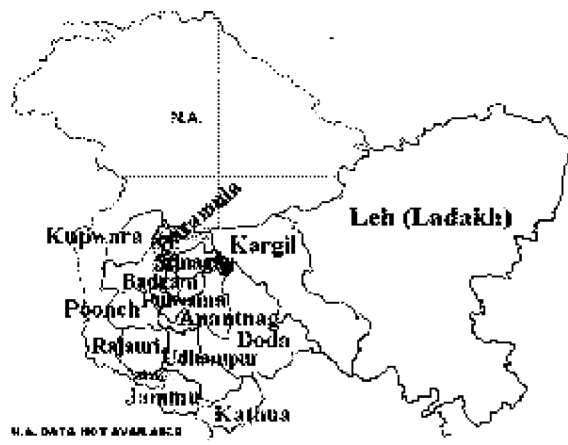
Source: Health Information of India 1997 and 1998, Central Bureau of Health Intelligence.

It is seen from the table that both birth and death rates have declined in the state. From 33.1-births/1000 populations in 1988 the number declined to 19.8-births/1000 populations in 1998. Similarly, death rates have declined from 8.4/1000 populations to 5.4/1000 populations. In the rural areas birth rate is considerably higher than in the urban areas. But the pace of decline in the rural birth rate values accelerated between 1990 and 1998 i.e., from 33.3 to 20.8-birth/1000 population respectively. The difference in the rural and urban death rate values also became reduced between 1988 and 1998 from 11.58/1000 population in 1988 between the rural and urban areas, to as low as 5 in 1998. This means that health care facilities have reached the villages. Moreover, the most encouraging fact is that both the birth and death rates in the state remained quite below the national average.

POPULATION DISTRIBUTION IN JAMMU AND KASHMIR: A DISTRICT PROFILE

The distribution of population reveals striking variation at the district level. According to 2001 figures the accentuation of population is mostly found in the districts of Baramulla, Srinagar, Anantnag and Jammu (Table II.4). Figure 4 shows the concentration of population in Jammu and Kashmir.

Fig. 4
District -wise Distribution of Population 2001



Index

Distribution of Population



Source: Census of India, 2001

The distribution of population since 1951 shows almost the same trend. The aforementioned four districts had the maximum share of population with the maximum proportion in Jammu district. In 1951, seven districts had 5-10 per cent of the state population. Due to the decline in the share of population in Rajauri district, in 1961 and 1971, six districts remained in the category of having 5-10 per cent of the state's population. In Poonch district, due to the impact of militancy, concentration of people has shown decline from 4.53 per cent in 1951 to 3.69 per cent in 2001. In Leh and Kargil district only a little more than one per cent of the population is found. Undulating topography and harsh climate has restrained people from settling there.

Table II.8
District-wise Distribution of Population in Jammu and Kashmir

Districts	1951	1961	1971	1981	2001
Kupwara	5.75	5.73	5.58	5.49	6.36
Baramulla	11.05	11.01	11.10	11.19	11.59
Srinagar	12.01	12.36	12.22	11.83	12.30
Badgam	5.84	6.01	5.83	6.13	5.90
Pulwama	6.87	6.95	6.80	6.75	6.28
Anantnag	11.13	11.27	11.22	10.96	11.62
Leh	1.24	1.22	1.12	1.14	1.17
Kargil	1.29	1.27	1.16	1.10	1.14
Doda	7.06	7.37	7.41	7.10	6.86
Udhampur	7.32	7.31	7.42	7.58	7.34
Poonch	4.53	4.34	3.70	3.74	3.69
Rajauri	5.46	4.82	4.71	5.05	4.75
Jammu	14.43	14.41	15.70	15.76	15.61
Kathua	6.01	5.92	6.02	6.17	5.40
Jammu & Kashmir	100.00	100.00	100.00	100.00	100.00

Source: Calculated from the census data of 1971, 1981 and 2001.

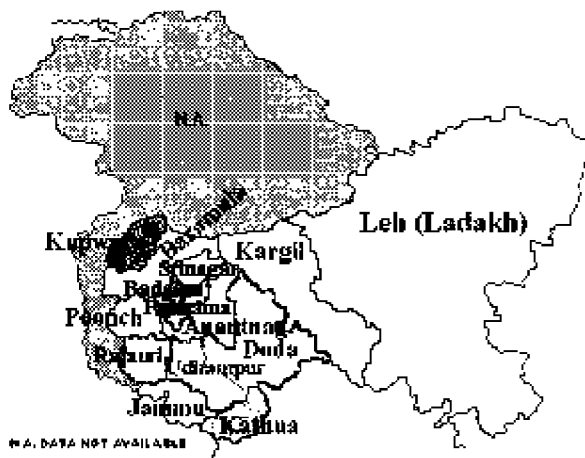
The concentration of population is related to the growth of population as well. There is also a great deal of variation in the rate of growth of population in terms of spatial dimension. A large number of districts experienced an average annual growth rate ranging between 2.50 per cent to 3 per cent in 2001 (Table II.9). Most of these districts form a pocket surrounding Srinagar district. Figure 5 depicts the concentration of population according to the variations in population growth.

Table II.9
Inter-district variations in average annual population growth rate
in Jammu and Kashmir, 2001

Average Annual Growth Rate	Number of Districts	Name of Districts
> 3.00	1	Kupwara
2.50 – 3.00	7	Baramulla, Srinagar, Anantnag, Leh, Kargil, Punch, Jammu
2.00 – 2.50	5	Badgam, Pulwama, Doda, Udhampur, Rajauri
< 2.00	1	Kathua

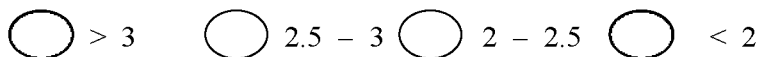
Source: Compiled from Table II.8

Fig. 5



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Average Annual Growth Rate



Source: Table II. 9

POPULATION STRUCTURE AND DISTRIBUTION IN JAMMU AND KASHMIR

The age structure of the population is one of the most important demographic characteristics. Fertility, mortality and migration of a given population affect and in turn are affected by the age structure. An analysis of the age structure throws light on the future trends of population growth, i.e., places with a greater proportion of the older age groups have a low rate of natural increase, while places with a greater proportion in the younger age groups have a high rate of natural increase.

Table II. 10
Age-group-wise distribution of Rural and
Urban Population in Jammu and Kashmir

Age-Group	Total/ Rural/ Urban	1971			1981		
		Person	Male	Female	Person	Male	Female
All Ages	T	100.00	100.00	100.00	100.00	100.00	100.00
	R	100.00	100.00	100.00	100.00	100.00	100.00
	U	100.00	100.00	100.00	100.00	100.00	100.00
0 — 14	T	42.90	41.55	44.43	40.99	39.77	42.36
	R	43.18	41.87	44.67	42.00	40.75	43.40
	U	41.65	40.16	43.38	37.21	36.15	38.43
15 — 19	T	8.56	8.74	8.35	10.39	10.51	10.26
	R	8.13	8.35	7.88	9.97	10.19	9.73
	U	10.41	10.39	10.42	11.97	11.70	12.27
20 — 24	T	7.76	7.71	7.81	8.37	8.38	8.36
	R	7.49	7.34	7.64	7.94	7.89	7.98
	U	8.96	9.31	8.55	10.00	10.18	9.79
25 — 29	T	7.78	7.44	8.16	7.62	7.40	7.85
	R	7.72	7.31	8.18	7.38	7.15	7.65
	U	8.03	7.99	8.08	8.48	8.36	8.62
30 — 39	T	13.01	12.79	13.25	12.19	12.08	12.31
	R	13.03	12.79	13.30	12.00	11.85	12.17
	U	12.92	12.82	13.04	12.95	13.04	12.85
40 — 49	T	9.11	9.60	8.55	9.10	9.38	8.79
	R	9.12	9.59	8.58	9.00	9.25	8.72
	U	9.08	9.61	8.46	9.48	9.86	9.05
50 — 59	T	5.34	5.94	4.65	5.57	6.04	5.04
	R	5.42	6.06	0.00	5.62	6.10	5.08
	U	4.95	5.40	0.20	5.38	5.83	4.87
60 +	T	5.55	6.22	0.82	5.75	6.42	5.01
	R	5.91	6.67	5.86	6.09	6.84	5.25
	U	3.99	4.30	22.40	4.51	4.86	4.11
Age Not Stated	T	0.00	0.01	0.67	N.A.	N.A.	N.A.
	R	0.00	0.00	0.00	N.A.	N.A.	N.A.
	U	0.01	0.02	0.01	N.A.	N.A.	N.A.

Source: Census of India 1971 and 1981

The economic consequences of the age structure are important because the young $\frac{3}{4}$ old distribution directly affects the distribution of the community resources particularly in terms of education and retirement benefits. The age-sex structure is generally represented in the form of a pyramid. A glance at Table II.10 shows that the area has had a fairly stable population, as was indicated by the heavy base and narrow top. More than 40 per cent of the population is in the age group of 0 -14 and 57 per cent of the population is in the three age groups of 0-14, 15-19 and 60 and above, both in 1971 and 1981. The remaining 43 per cent are in the productive age group. This indicates that the burden of dependency is high. During 1971-81, the growth in the 0-14 age group was 24 per cent (Table II.11) and 57.49 per cent

in the 15-19 age group. This high growth shows that employment opportunity in the potential sectors needs to be created for this growing population.

Table II.11
Age group-wise Growth rate of the Population in Jammu and Kashmir

Age-Group	1971			1981			1971-81		
	Person	Male	Female	Person	Male	Female	Person	Male	Female
All Ages	4616632	2458315	2158317	5987389	3164660	2822729	29.69	28.73	30.78
0-14	1980438	1021405	959033	2454303	1258555	1195748	23.93	23.22	24.68
15-19	395028	214782	180246	622120	332629	289491	57.49	54.87	60.61
20-24	358192	189613	168579	501095	265145	235950	39.90	39.83	39.96
25-29	359051	182944	176107	455958	234284	221674	26.99	28.06	25.87
30-39	600524	314510	286014	729876	382306	347570	21.54	21.56	21.52
40-49	420558	235948	184610	545098	296922	248176	29.61	25.84	34.43
50-59	246357	145977	100380	333489	191246	142243	35.37	31.01	41.70
60+	256287	153002	17599	344565	203065	141500	34.44	32.72	704.02
Age Not Stated	197	134	14428	N.A	N.A	N.A	N.A	N.A	N.A

Source: Census of India, Jammu and Kashmir, 1971 and 1981.

SEX RATIO AND ITS VARIATION IN JAMMU AND KASHMIR

A distinctive feature of the population in India relates to imbalance in sex ratio, which remains mostly tilted towards men. Table II.12 shows the sex ratio in Jammu and Kashmir since 1951. The figures show that though there has been a marginal increase in the sex ratio over the period, it is still below the national average. In 2001, eight districts had sex ratio above the state average and only Pulwama with 938 females per 1000 males was above the national average.

Table II. 12
Sex Ratio in Jammu & Kashmir 1951-2001

Districts	1951	1961	1971	1981	2001
Kupwara	874	882	841	858	929
Baramulla	858	853	851	870	909
Srinagar	846	852	852	873	871
Badgam	838	840	845	880	918
Pulwama	843	848	850	896	938
Anantnag	853	867	847	888	922
Leh	1011	1010	1002	886	805
Kargil	970	935	949	853	901
Doda	904	901	886	904	905
Udhampur	907	912	908	906	871
Punch	905	902	903	889	916
Rajauri	911	900	900	906	891
Jammu	870	886	920	918	881
Kathua	896	905	921	917	907
Jammu & Kashmir	873	878	878	892	900
India	946	941	930	934	933

Source: Census of India, 1981 and 2001

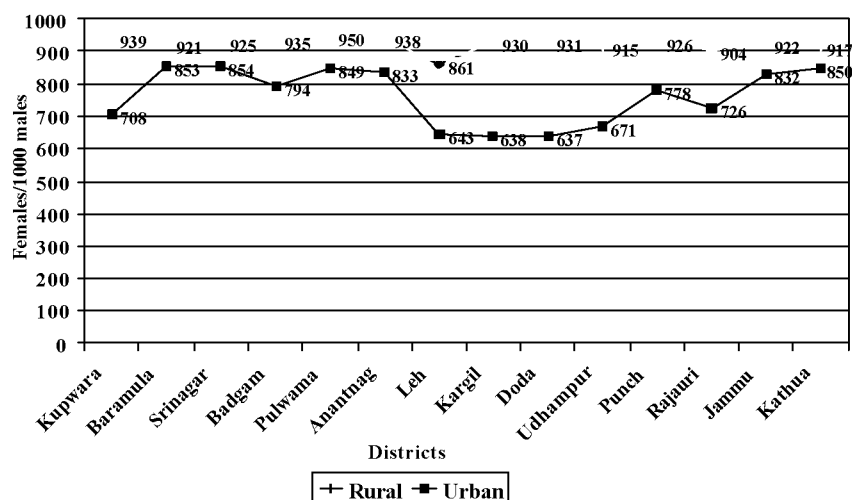
Table II. 13
Rural and Urban Sex Ratio 2001

(Females per 1000 males)

Districts	Rural	Urban
Kupwara	939	708
Baramulla	921	853
Srinagar	925	854
Badgam	935	794
Pulwama	950	849
Anantnag	938	833
Leh	861	643
Kargil	930	638
Doda	931	637
Udhampur	915	671
Punch	926	778
Rajauri	904	726
Jammu	922	832
Kathua	917	850
Jammu & Kashmir	927	822

Source: Census of India 2001

Fig. 6
Rural and Urban Sex Ratio, 2001



Source: Census of India, 2001

It is not just that the sex ratio for the state as a whole is 900; the difference between the rural and urban sex ratio is also quite high. Table II.13 and Figure 6 show the differences between the rural and urban sex ratio in the districts. The maximum difference is noticed in Doda and Kargil districts where the difference is as high as almost 300 females between the rural and urban areas. As many as eight districts in 2001 had a sex ratio lower than the state average. It is very important

to note that the districts having influence of the urban agglomerations of Srinagar and Jammu have a better sex ratio compared to other districts. In other districts, it can be assumed that male members have migrated to cities where employment opportunities are better compared to the villages. Figure 6 reveals that the sex ratio for all the districts is better in the rural areas. Jammu, Kathua, Baramulla and Srinagar have little difference between the rural and urban sex ratio. Except in Leh, the rural sex ratio in all the districts of the state is above the total state sex ratio.

LITERACY

According to the 2001 census, 54.46 per cent of the population is literate in Jammu and Kashmir. The national literacy rate for the same period is 65.38 per cent. Jammu and Kashmir ranks thirty-three among the states and UTs of India, and is followed only by Jharkhand (54.13 per cent) and Bihar (47.53 per cent). Table II.14 shows the changing pattern of literacy in Jammu and Kashmir since 1981.

Table II.14
Literacy Rate in Jammu and Kashmir

Total/Rural/Urban	Persons		Males		Females	
	1981	2001	1981	2001	1981	2001
Total	30.64	54.46	41.46	65.75	18.37	41.82
Rural	25.01	48.22	36.35	60.34	12.19	35.09
Urban	51.12	72.17	59.87	80.30	41.05	62.22

Source: Census of India, 2001, Jammu & Kashmir.

It is depicted by the table that literacy rate in the state has made substantial progress but still lags far behind the national average. The literacy rate among the males in rural areas has increased from 36.35 per cent in 1981 to 60.34 per cent in 2001. Similarly, the literacy rate among the female is higher in rural areas where an almost three-fold increase was recorded as against the urban areas. The literacy rate of rural and urban areas of the constituent districts is given in Table II.15.

Among the rural areas, Jammu district tops the table with 71.95 per cent literacy followed by Kathua with 62.64 per cent. Surprisingly, Srinagar district falls at the bottom. This is due to the impact of the militancy. All the districts affected by militancy have a low literacy rate. The districts of Rajauri and Poonch have topped the urban literacy rate while Badgam remains at the bottom with 57.11 per cent in urban areas. Out of the 14 districts, six districts have a higher literacy rate than the state average of 54.46 per cent.

Table II.15
District-wise Literacy Rate in Rural and Urban areas

Districts	Total/Rural/Urban	1981			2001		
		Persons	Males	Females	Persons	Males	Females
Kupwara	T	16.82	27.07	4.88	40.80	53.55	26.83
	R	16.32	26.53	4.43	39.84	52.54	26.10
	U	33.45	44.63	20.16	62.88	73.82	46.81
Baramulla	T	20.62	30.24	9.57	44.57	56.39	31.42
	R	17.51	27.15	6.44	41.00	53.06	27.79
Srinagar	U	40.73	50.23	29.82	61.24	71.38	49.14
	T	33.90	41.97	24.66	59.18	68.85	47.97
	R	14.24	22.98	4.35	36.06	47.32	23.73
Badgam	U	38.66	46.53	29.62	65.09	74.16	54.40
	T	17.86	26.51	8.02	40.94	52.51	28.14
	R	14.63	23.05	5.07	38.09	49.46	25.78
Pulwama	U	37.49	47.41	26.09	57.11	72.83	46.87
	T	20.47	30.56	9.21	47.76	59.24	35.40
	R	19.12	29.19	7.88	45.78	57.09	33.77
Anantnag	U	34.10	44.53	22.55	63.57	75.59	49.24
	T	22.93	33.58	10.94	44.10	55.56	31.51
	R	20.75	31.51	8.62	41.04	52.37	28.80
Leh (Ladakh)	U	41.14	50.88	30.23	61.50	72.62	47.93
	T	25.17	36.76	12.09	62.24	71.98	50.03
	R	22.30	33.84	9.63	56.47	66.73	44.56
Kargil	U	44.79	54.83	31.09	81.64	87.24	72.47
	T	18.86	32.26	3.14	58.21	73.58	40.96
	R	17.59	30.69	2.33	55.88	71.58	38.92
Doda	U	41.31	58.57	18.54	81.22	90.18	66.54
	T	18.50	28.59	7.34	46.92	63.56	28.36
	R	16.20	26.30	5.07	43.68	60.60	25.39
Udhampur	U	55.08	63.80	44.75	83.69	91.75	70.61
	T	23.52	32.55	13.55	54.16	66.43	39.89
	R	19.47	28.79	9.20	47.59	60.41	33.49
Poonch	U	61.96	67.87	55.31	86.35	91.93	77.77
	T	23.39	34.20	11.24	51.07	65.41	35.30
	R	21.03	32.19	8.47	48.31	63.13	32.22
Rajauri	U	58.46	64.17	52.08	88.84	94.15	81.91
	T	24.73	34.16	14.32	57.65	69.64	44.14
	R	22.81	32.23	12.47	55.33	67.61	41.76
Jammu	U	59.49	67.50	49.75	86.72	92.67	78.38
	T	42.86	52.60	32.24	77.30	84.92	68.75
	R	35.74	46.62	24.05	71.95	81.42	61.85
Kathua	U	59.75	66.45	52.19	83.79	88.94	77.64
	T	31.91	41.67	21.25	65.29	75.73	53.92
	R	29.12	39.01	18.37	62.64	73.71	50.71
	U	53.56	62.10	44.00	80.73	87.05	73.38

Source: Census of India, 2001

DENSITY OF POPULATION

The population density of the state reflects the variation in population growth.

Table II.16
Population Density in Jammu and Kashmir

Districts	Area (sq. kms)	Population		Density	
		1981	2001	1981	2001
Kupwara	2379.0	328743	640013	138	269
Baramulla	4588.0	670142	1166722	146	254
Srinagar	2228.0	708328	1238530	318	556
Badgam	1371.0	367262	593768	268	433
Pulwama	1398.0	404078	632295	289	452
Anantnag	3984.0	656351	1170013	165	294
Leh*	45110.0	68380	117637	2	3
Kargil	14036.0	65992	115227	5	8
Doda	11691.0	425262	690474	36	59
Udhampur	4550.0	453636	738965	100	162
Punch	1674.0	224197	371561	134	222
Rajauri	2630.0	302500	478595	115	182
Jammu	3097.0	943395	1571911	305	508
Kathua	2651.0	369123	544206	139	205
Jammu & Kashmir	222236.0	5987389	10069917	27	99
India	3287263	685184692	1027015247	208	324

Source: Census of India 1981 and 2001.

*Area of Leh (Ladakh) district in Jammu and Kashmir excludes area under illegal occupation of China and Pakistan.

All figures are provisional.

The district-wise density figures show that between 1981 and 2001 all the districts recorded an increase in population density. Srinagar and Jammu district has the highest population density followed by Pulwama and Badgam. Agglomeration of people depends on certain characteristics such as economic conditions, spatial linkages, efficacy of public and private transport and location. Conditions in the four districts are favourable for population concentration while on the other hand Leh, Kargil and Doda have very little population. The physiographic condition of these areas prohibited population concentration. Moreover, the state's total geographical area of 222,236 sq km. an area of 78,114 sq. km. is under illegal occupation of Pakistan and 5,180 sq. km illegally handed over by Pakistan to China. Apart from this, 37,555 sq. km is under illegal occupation of China in Leh district of Ladakh region.³ Of the remaining area of 101,387 sq. km., 58.3 per cent falls in the Ladakh region with the result that Leh has lowest density of 3 persons per sq. km, followed by Kargil district with 8 persons per sq. km. as per the 2001 census.

³ Census of India 2001, Jammu & Kashmir Series-2, Paper-2 of 2001 Rural-Urban Distribution of Population, p.ix.

DEMOGRAPHY AND DEVELOPMENT IN JAMMU AND KASHMIR

The concept of Human Resources Development could be elucidated in a number of ways. In a general sense, it is the process of increasing knowledge, skills and the capacities of all the people in a society. Human resources are an asset, required not only for exploiting the natural resources and for improving the productive capacity of the people, but for enhancing their own welfare. It can become a liability if not properly managed/ contained.

The following is an attempt is made to analyze the human resource development scenario in Jammu and Kashmir. Table II.17 provides some selected indicators. Its analysis shows that poor level of social and economic development is one of the major causes of poor human resource development.

Table II. 17
Development Scenario in Jammu and Kashmir as Compared to India

Dimension and Variables	India	Jammu and Kashmir	
		Level	Rank
<i>Population Structure and Distribution</i>			
Population Density, 2001 (Persons per sq. km)	324	99	31
<i>Status of Women</i>			
Sex Ratio, 2001 (Females per 1000 males)	933	900	26
Female Literacy Rate, 2001	54.16	41.82	33
<i>Agriculture</i>			
Net Sown Area 1996-97 (Hectare)	142819	733	16
Net Sown Area Irrigated 1996-97 (Hectare)	55143	313	16
Value of agriculture production, 1995 (Rupees per capita)	N.A	1125	N.A
<i>Industrialization and Urbanization</i>			
Proportion of Urban Population, 2001 (Per Cent)	27.78	24.88	20
Industries per lakh of population, 1999	13	4	19
Per Capita Electricity Consumption (1997-98 (Kwh)	349.1	223.7	20
<i>Social Development</i>			
Population below Poverty line, 1993-94 (Per Cent)	35.97	25.17	23
Work Participation rate, 2001 (Per Cent)			
Literacy Rate, 2001 (Per Cent)	65.38	54.46	33

Sources: Census of India, 2001 and Statistical Abstract of India, 1999.

Jammu and Kashmir is one of those states in the country where both the demographic situation and level of socio-economic development remains far from satisfactory. During the decade 1991-2001, the decadal growth rate in the state was 30.46 per cent and average annual growth rate 2.69 per cent per year. This growth rate was the eighth highest in the country, next only to the four Union territories (Dadra & Nagar Haveli, Daman & Diu, Delhi and Chandigarh) and small states of Nagaland, Sikkim and Manipur. This growth in the state can be largely due to the prevailing high fertility.

According to 1997-98 information, the state ranks seventeenth in terms of per capita Net State Domestic Product. In terms of industries per lakh population, the state ranks nineteenth and in terms of literacy its rank is thirty-three. In terms of Net Sown Area irrigated, it ranks sixteen.

It shows that the situation in respect of socio-economic progress is no better in the state. It is important to note that both social and economic development and demographic situation are actually multi-dimensional processes and each dimension of development as well as demographic change has its own specific determinants.

DEMOGRAPHIC CHALLENGES AND OPPORTUNITIES

The population growth rate in the state has been consistently high. The population recorded in the 2001 census (10069917) was higher than the projected population of 2001 with figures based on the 1971 census (Annex 3). The population is expected to grow to 12031825 in 2015 and to 13809601 in 2025. It is necessary to estimate the probable future size of the state so that associated factors having implications on its development and the quality of life are understood. The additions to population put tremendous pressure on the social and economic front. The challenges of population growth are felt in different sectors. The following paragraphs bring out some of these challenges.

INFRASTRUCTURE AND ECONOMY

An increasing population in the face of already scarce resources and land can only result in diminishing returns in the absence of increase in other factors such as capital, better-trained labour and technological innovation. Higher level of the necessary investment is necessary to achieve a given average output. More capital will be required to support, even at the subsistence level, an increased number of mouths to feed. This includes factory buildings, machines and other tools; social overheads such as roads and school buildings, irrigation projects, residential and

office construction and investment in human beings. This is essential if there is to be no decline in the people's standard of living. More than a decade of militancy has damaged developmental infrastructure in the state. It is, therefore, essential that demographic challenges be kept to the minimum so that necessary infrastructure is reinstated, to stabilize economy. It has therefore, to receive highest priority in development planning.

DEPENDENT POPULATION

A rising population decreases the ability of the state to save, as the dependency ratio is high. A major part of the population consists of young persons between ages of 0 and 14 years and old people within the age bracket 60 and over, the so-called non-productive ages. It calls for a major effort in producing food and other consumer goods for these non-productive dependants.

HEALTH

The rate of growth of the population has important implications for the health services. With the large number of women (805194 females in 1981⁴) in the age group of 20-39 the fertility level would remain at its present high level and the population will increase. It needs to be mentioned here that in the 2001 census, 47 per cent of the total population consisted of females. During 1989 the number of beds/1000 population was only 5. This indicates the general magnitude of the problem, which means that increased number of hospital beds will be needed to maintain the same bed/1000 population ratio. A similar problem is faced in respect of doctors, medical assistants and nurses. The cost of such an expansion therefore is naturally very high. Moreover, the demand for medical services depends on the age composition as well as the size of the population. In the state, more than 5 per cent of the population is above the age group of 60 years. Therefore, in order to ensure that the standard of health remains good, an investment in preventive and related social services including housing and education will be essential.

EDUCATION

With the decadal growth rate of 21.34 per cent between 1991-2001 it can be assumed that there is a large addition to school going age population, which calls for more investment. More than 50 per cent of the population forms the school going age-group. With the existing facilities for education it will be difficult to

4 1981 census data has been quoted as 2001 age-sex data was not available.

accommodate them unless necessary expansion is undertaken in a planned manner. Moreover, demand for university education has also been stimulated by the larger number of children of white-collar parents seeking advanced degrees and the growing market demand for more skilled workers. It will be necessary to make adequate investment in the education sector.

RECOMMENDATIONS

- The recommendations of the National Population Policy, 2000 should be adopted by the state government, as it is an essential requirement for promoting sustainable development with more equitable distribution. The State Population Commission of J&K should formulate specific strategies towards this direction.
- Promote collaborative arrangements with private sector health professionals, NGOs and the public sector, to increase awareness about population stabilization and aid the government in the provision and outreach of basic reproductive and child health care and basic education.
- The local government institutions i.e., the panchayats and municipalities should be motivated to promote small family norms by achieving reductions in infant mortality and birth rates and promote literacy with completion of middle-level schooling.

CHAPTER III

Socio-Economic and Administrative Development

AN OVERVIEW

The social, economic and administrative indices provide an overview of the development scenario of a state. This chapter attempts to assess the nature and extent of development in the state of Jammu and Kashmir with reference to these indices. Here the term 'development' is used to denote social and economic indicators which determine the quality of life of the people. Jammu and Kashmir has the characteristics of a backward economic region. The chief characteristics of the state are the predominance of the agricultural sector, low degree of urbanization, inadequately developed infrastructure, widespread illiteracy, high birth rates and low levels of investment. The state ranks among one of the bottom-line states with respect to socio-economic development indicators like literacy rate, infant mortality rate, death rate, birth rate, status of children and women, power consumption, industrial and infrastructure development. Though the number of people below poverty line is only 3.48 per cent (Planning Commission estimate), this does not reflect the progress of the state in terms of main indicators of development because majority of the people have basic requirements like nutritious food, house and cloth.

The per capita annual income of the state was Rs 11,591 in 1989-99 at current prices, which is double that of the per capita annual income of Bihar and half of that of Maharashtra. Nearly 80 per cent of the population of the state lives in the rural areas. Agriculture and allied activities employ 70 per cent of the work force and contribute 60 per cent of the state income. Only a small section of workers is employed in the secondary and tertiary sector. This chapter is divided into three sections. The first section deals with economic development and economic infrastructure; the second with social development and social infrastructure; and the third section deals with administrative development. All the sections are further divided into subsections. The following is a brief profile of the three sections which are subsequently discussed in detail.

SECTION 1

This section examines indicators like agriculture and allied activities, irrigation, industry, labour and employment and infrastructure.

Agriculture

Agriculture and its allied activities are the predominant sector of the economy of Jammu and Kashmir. The land holding pattern is an important predetermining factor of economic and social development. According to the 1995 Agriculture Census, the average land holding is 0.73 hectare. The only state in India with lesser land holding than Jammu and Kashmir is Kerala (0.33 ha). The number of agricultural land holdings went up after land reform, a positive indicator of development. Out of the total geographical area of 2, 22, 236 km² lakh hectare, 40.94 per cent was the gross cropped area including the net sown area and area sown more than once. The net area sown was 30.47 per cent, fallow land accounted for 4.30 per cent and area under forest formed 27.23 per cent. Land not available for cultivation was 29.29 per cent.¹ Allied activities of the agriculture sector like dairy development, fisheries, livestock and sericulture are also dealt with in this sector.

Industry

In spite of a large natural and human resource base, the state lags behind in industrial development. However, due to environmental factors and its geographical location, setting up of large manufacturing industries with a huge capital base is not possible, although many small and medium-scale industries have come up. According to Industrial Statistics of Jammu and Kashmir, 2000-01 there were 42,808 industrial estates in the state in the medium and small-sector with an employment of 1,87,399. The industrial base of Jammu and Kashmir consists mainly of hosiery and basic metal products and wood and food product industries, which contribute a major percentage of total industrial output in the registered manufacturing sector. The industrial backwardness of the state is reflected by the fact that the consumption of electricity is as low as 460 Kwh.

Economic Infrastructure

The economic infrastructure, to a large extent, is the basis on which the economic and social development rests. The power sector, roads and transport and

1. *Source:* Government of J & K, Directorate of Economics and Statistics.

telecommunication come under economic infrastructure. Jammu and Kashmir possesses immense potential for development of the power sector (based on hydel and solar), but the progress of this sector in the state has not been on a scale commensurate with the possibilities. The total installed capacity in 2000-01 was 537.76 MW and total generation in the same year was 580.01 MKwh. Besides, Uri and Salal as NHPC projects have been commissioned and are generating power. Total units sold to consumers in 2000-01 were 3397 MKwh. In terms of per capita consumption of electricity (Kwh) in 1998-99, Jammu and Kashmir stood at 12th position from the bottom at 255 MW. Inadequate infrastructure has hampered the growth of productive sectors in the state. In terms of road length per 1000 sq. km in 1996-97, it is seen that the Jammu and Kashmir figure is the lowest (127/1000 sq km) as compared to Himachal Pradesh (542/1000 sq km) and Assam (872/1000 sq km). The road length for 2000-01 is State PWD 13660 sq. km, other Departments (including BRO) 20,332 sq. km (Digest of Statistics, 2000-2001). The state also has the lowest figure (0.40/1000 sq km) for railways.

SECTION 2

This section deals with all the activities which affect the social life of the people. The social infrastructure comprising facilities for health and education, women and child development and urban development has been discussed in detail.

The social infrastructure of Jammu and Kashmir falls behind most of the developed states in India. Taking education and health as the indicators for social infrastructure, one finds that in 1998-99 there were 10515 primary schools, 3507 middle schools and 1466 high and higher secondary schools, whereas the corresponding numbers in the rest of India were quite high.² This section also discusses the health care, number of hospital and dispensaries per lakh population.

The social indicators here are literacy rate, infant mortality rate, death rate, birth rate, status of children and women and level of poverty and rural development. In terms of literacy, Jammu and Kashmir ranks third from bottom at 54.46 per cent.³ The states with a lower literacy rate than Jammu and Kashmir are Bihar (47.53 per cent) and Jharkand (54.15 per cent). Crude birth rate per 1000 and death rate per 1000 population during 1999-2000 was 13.27 per cent and 3.03 per cent respectively, second highest from the bottom.

2. *Source*: Education Department, Annual Report, Govt. of J & K, 2000-01.

3. *Source*: Govt. of Jammu and Kashmir, Digest of Statistics, 2000-01.

SECTION 3

This section deals with the administrative aspect of development. It attempts to analyze major rural development programmes introduced in the state from time to time. Government and its policies being instrumental in the development of a state, different government policies in respect of poverty eradication and rural development and implementing bodies like the panchayati raj plus the need for good governance have been dealt in detail.

Before delving into the details of each section to develop infrastructure, employment generation and sustained economic development it would be essential to take note of the Prime Minister's announcement for specific development programmes to ensure proper economic development of the state.

Prime Minister's Jammu & Kashmir Package For Employment, Development, Relief and Security

Prime Minister Shri Atal Bihari Vajpayee, at the end of his three-day visit (21st to 23rd May 2002) to Jammu & Kashmir, announced the following comprehensive package of Rs. 6,165 crore covering various aspects of development and security, with a thrust on generation of new employment opportunities for the youth of Jammu & Kashmir and relief for migrants affected by militancy and cross-border shelling.

1. Ministry of Railways

- (a) The 287-km Udhampur-Srinagar-Baramulla rail line will be completed within five years at a cost of **Rs.3, 600 crore**. This railway line is vital for Jammu & Kashmir from the point of view of acceleration of its socio-economic development, promoting national integration and strengthening India's security infrastructure. The work of the railway line is divided into three sections and the tentative fund required is also different as can be seen from the following table.

Section	Funds required in Crores				
	2002-03	2003-04	2004-05	2005-06	2006-07
Udhampur- Katra	90	95	97	0	0
Katra - Qazigund	10	400	250	250	290
Qazigund- Srinagar- Baramulla	200	150	150	150	150
Total	300	645	1097	1000	1040

The work for the first and last section has already been taken up. No work has yet been taken up in the intermediate portion i.e. between Katra and Qazigund. This section is treacherous and will involve heavy tunneling for about 80 km length out of total of 140 km. The bridging in this portion will also be a difficult task. At present a survey is being conducted to work out the details involved in the construction of the section.

The project will be completed and the first train will roll into the Kashmir Valley before August 15, 2007. As a first step, this year's provision is being increased to Rs. 400 crore. Over the next five years, this will require Rs.1500 crores additional fund over previously projected requirement and this additionally will be provided.

- (b) The Jammu Tawi - Jalandhar Line will be doubled within the next five years at a cost of **Rs.386 crore**. It also involves the construction of a number of important bridges. The tentative requirement of funds for the project is expected to be as under:

Year	Fund Required (in crores)
2002-03	19
2003-04	100
2004-05	100
2005-06	110
2006-07	57

Rs. 19.21 crores have been allocated for 2002-03.

2. Border Roads Organisation (Ministry of Defence) and Ministry of Surface Transport

- (a) Nimu Zangal-Padam-Darcha Road (292 kms) linking to Manali-Sarchu Road will be completed over the next four years at a cost of **Rs.195 crore**.
- (b) The above road would be a part of another ambitious project - namely, the all-weather 474-km road to Leh via Manali, including construction of the Rohtang Tunnel. This road, which passes through four high-altitude mountain passes, would be completed before 2010 at a cost of **Rs.1335 crore**.
- (c) In addition, the Prime Minister also announced the Government's decision to advance completion of a major road sector in the state. The construction of the road from Batote to Kistwar - Sinthan Pass - Khanabal, part of which has been declared National Highway 1-B by the Ministry of Surface Transport, would be

speeded up by Border Road Development Board (BRDB). It will now be completed by 2007, as against the earlier deadline of 2013.

3. Ministry of Textiles

Jammu & Kashmir's traditional cottage industries of Wool, Pashmina, Sericulture, Handicrafts, and Carpet Weaving enjoy a great reputation. They also provide employment to a large number of artisans and craftsmen.

The Ministry of Textiles will provide **Rs.70 crore** over five years for further developing this important sector. The programme will also focus on revival of exportable tweed and Kashmir's famous Kani Shawl. The financial requirements for developing the different sectors of the cottage industry is as under:

Technology Mission for Wool	Rs. 12 crore
Development of Pashmina	Rs. 8 crore
Traditional Handicraft Development	Rs. 42.40 crores
Development of Sericulture and Silk Industries	Rs. 10.06 crores
Development of Wool (Tweed) and woolen Design and Development Centre	Rs. 10 crores
Integrated Project for development of Kani Jamawar Shawls	Rs. 5 crores

4. Ministry of Agriculture

The package contains the following two programmes in agriculture, which sustains the livelihood of many people in the state.

- (a) Technology Mission Horticulture for J & K for **Rs.100 crore** over 5 years which could be coordinated with the Agri-Export Zones for Apples and Walnuts being developed by the Ministry of Commerce. For Apples the sanction is Rs. 82.43 crores and for Walnuts Rs. 36.93 crores.
- (b) Eco Restoration of Degraded Catchments of Chenab, Jhelum & Shivaliks in J&K using participatory watershed approach. A tentative **Rs.100 crore** is the budget for 5 years.

5. Planning Commission

The Border Area Development Programme Fund for J&K will be increased to **Rs.500 crore** over the next five years (Rs.100 crore per year). Half of this amount will be made available directly to District Rural Development Agencies (DRDAs),

with focus on taking up economic / and Infrastructure development programmes in the Border.

6. Ministry of Home Affairs

Two India Reserve Battalions (IRB) will be raised over the next two years - one in 2002-03 and the other in 2003-04 - at a cost of **Rs. 26 crore**,

Rs. 25 crore will be provided over the next five years (Rs. 5 crore per year) for Incentive Schemes for 4000 police personnel who are members of SOG (Special Operations Group).

Rs. 5 crore will be provided over 5 years for better training of and weaponry to the J & K Volunteer Force (elite group of SPOs). The Government has decided to increase the ex gratia payable to the next of kin of SPOs killed in action against terrorists from Rs.1.25 lakhs to Rs.2 lakhs per person.

7. Village Defence Committees (VDCs)

Village Defence Committees (VDCs) have proved to be very useful in supplementing the efforts of the security forces in counter-terrorism and counter-infiltration operations. VDCs will be provided with better weaponry. They will also be given higher allowance on a selective basis.

8. National Defence Fund

(a) **Rs.10 crore** will be provided for provision of new tents and common civic amenities for Border Migrants in J & K. Of this amount, Rs. 5 crore will be released immediately.

(b) **Rs. 8 crore** will be provided for the Police Welfare Fund of J & K Police this year. This will be used for upgrading police hospitals for treatment of police personnel wounded in terrorist attacks; establishment of a Rehabilitation Centre for Widows of police personnel killed by terrorists; Schools for orphans of police personnel killed by terrorists.

9. Enhancement of Assistance to Migrants For Border Migrants

A total of **Rs. 6,165 crore** has been sanctioned against this.

A. For Border Migrants

Ration

Provision of free foodgrains will be increased from 9 kg. per head per month to 11 kg per head per month.

Financial Assistance

- (a) This will be increased from Rs.200 per person per month to Rs.400 per person per month limited to Rs-1600 per family per month
- (b) Old Tents will be replaced with new ones and adequate tents will be provided with assistance from the National Defence Fund, to all eligible migrants.
- (c) Assistance of Rs. 200 per animal per month to each animal-rearing family.

B. For Kashmiri Migrants

For Kashmiri Migrants, the upper limit of financial assistance per family will be increased from Rs.2400 per month to Rs.3000 per family per month, with the same scale per family member per month.

A. Economic Sectors

1. AGRICULTURE

INTRODUCTION

Agriculture is the predominant sector in the economy of Jammu and Kashmir. Directly and indirectly, it supports about 80 per cent of the population besides contributing nearly 60 per cent of the state revenue, which adequately explains the over-dependency of the population on agriculture. The overall economic growth of the state depends largely on the progress of the agricultural sector, the development of which becomes even more important in the context of the very nominal progress it has made in the secondary sectors. With the introduction of planned development in the state during 1951-56, production of foodgrains and fruits has increased considerably. During 1998-99, the state produced 15.50 lakh quintals of foodgrains against 4.53 lakh quintal in 1950-51. Of this, Kashmir region contributed 27.20 per cent, Jammu region 72.14 per cent and Ladakh and Kargil region 0.66 per cent.

Jammu and Kashmir is divided into three agro-climatic zones: Cold arid desert areas of Ladakh, temperate Kashmir Valley and the humid sub-tropical region of Jammu. Each has its own specific geo-climatic condition which determines the cropping pattern and productivity profile. In Jammu province, a small portion of the land lies in the plains along the borders of Punjab while the rest of the area is hilly. As per the Agricultural Census 1994-95, Jammu region dominates both in maize and wheat production. About 67 per cent of the area is under maize and wheat production with the production of 21.25q/ha maize and 15.36 q/ha wheat. This region contributes 79.56 per cent and 95.69 per cent of total production of these two cereals respectively. Even though the yield is not high, the region makes appreciable contribution to the production of groups of cereals classified as 'other cereals and millets'.

The second agro-climatic zone is Kashmir, also known as 'cultivator's paradise'. The region practically depends on irrigation, which is easily available. A large area of level land has alluvial soil. Extensive elevated plateaus of the alluvial or lacustrine material (locally called *Karewas*) also exist in the Kashmir valley. These *Karewas* are productive only in the face of sufficient rainfall or adequate irrigation facilities. Rice is the chief crop of this zone, followed by maize, barley and wheat. According to the Census 1994-95, the Kashmir region accounted for 61 per cent of total cultivable land under rice with the highest yield of 26.13 q/ha as compared to

approximately 15.96 q/ha in the Jammu region. By and large, the soils are well suited for rice cultivation and 90 per cent of the area under rice is irrigated. This region alone contributes more than 74 per cent of total rice produced in the state.

Ladakh zone is endowed with bare rocky mountains and bare gravel slopes. Villages are located near pockets of land with level ground and irrigation facilities, where cultivation is viable. In this region, barley is the major cereal crop followed by summer wheat. Millets and wheat rank second in importance and are grown in the warmer belt of the region.

According to Agriculture Census 1994-95, the gross cultivated area under foodgrain crops is 64.12 per cent of which barley occupies 44.23 per cent and wheat 22.64 per cent. Fruits and vegetables occupy 2.18 and 0.35 per cent respectively.

The physical and climatic conditions act as inhibiting factors in some parts of the state. Further, the extremely small size of holding (average is 0.73 ha) and absence of further scope for extension of cultivation makes it imperative to put agricultural land to optimum use so that the limited land yields the maximum. This could be possible through the judicious application of modern technology adapted to local conditions.

The disadvantage of limited land could be partially overcome through increasing the area under double cropping and by introducing a short-duration *rabi* crop in the valley, which has so far been growing only one crop a year.

It is essential to exploit the potential of irrigation in the state. In the mean time, other schemes consisting of new *khuls*, wells, pumping sets and renovation and repair of *zamindari khuls* should be given due attention.

Apart from this, the state legislation for agriculture has also contributed to the slow growth of agriculture in the state. There are two legislations that restrict the growth of agriculture and horticulture in the state, viz., (a) Conversion Act, which restricts the cultivator from converting irrigated land into orchard, and (b) Kuth Act, which restricts the cultivators from growing wild trees having medicinal value as this hampers the growth of some areas.

Once these aspects are taken care of, a major breakthrough could come through the adaptation of modern technology in the form of high-yielding varieties and large input of fertilizers. A detailed analysis of the existing state of agriculture and its development potential, as well as the implication of the government programme, is described below.

LAND USE PATTERN

The total geographical area of the state is 2, 22, 236 km². Net sown area accounts for maximum area under a particular land use type, followed by forest land put to non- agricultural uses, barren land and permanent pastures and other grazing land in the state (Table III.1). Total forest cover in the state is far below the area prescribed by the 1952 Forest Policy according to which 66 per cent of land should be under forest cover in the hilly region. However, barring Ladakh region, the state has only 50 per cent of its area under forest cover.

Table III.1
Area under different land use

(Values for area are given in 1000 hectare)

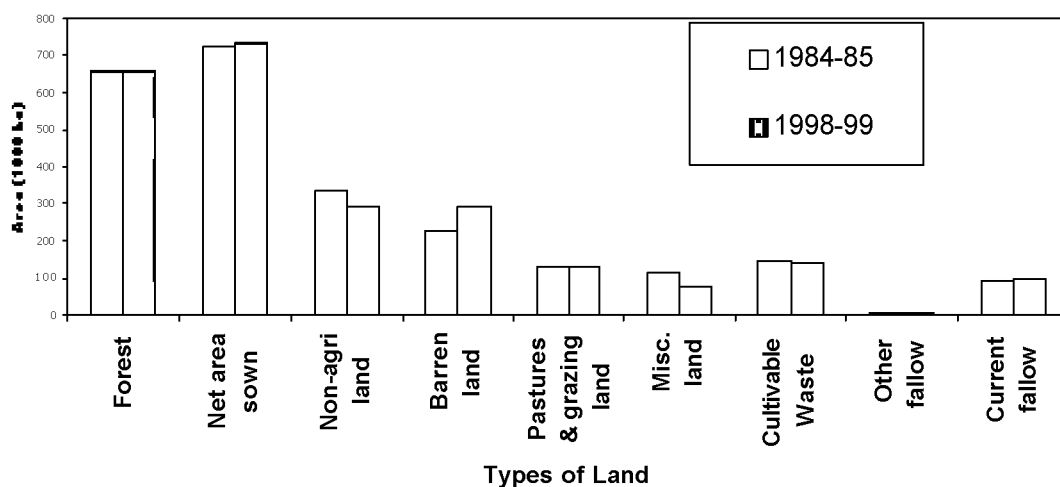
Land use types	Area (1997-98)	Area (1998-99)	Percentage of area (1997-98)	Percentage of area (1998-99)
Forest	658	658	27.19	27.23
Net area sown	722	734	29.53	30.38
Land put to non-agricultural uses	339	291	14.00	12.04
Barren land	227	291	9.37	12.04
Permanent pastures and other grazing grounds	125	126	5.16	5.21
Land under miscellaneous trees and other groves	109	73	4.50	3.02
Cultivable waste	143	139	5.90	5.75
Fallow other than current fallow	8	8	0.33	0.33
Current fallow	91	96	3.75	3.97

Source: Digest of Statistics (1999-2000), Govt. of Jammu and Kashmir

The area under forest cover (27.2 per cent) remained more or less the same during 1997-98 and 1998-99 (Table III.1). Net sown area (30.38 per cent), land put to non-agricultural uses (12.04 per cent), barren land (12.04 per cent), permanent pastures and others grazing grounds (5.21 per cent) accounted for major land use type apart from forested land. While land put to non-agricultural uses declined from 14 per cent to 12.04 per cent during 1997-98 to 1998-99, the cultivable waste declined from 5.90 per cent to 5.75 per cent during the corresponding period. On the other hand, the net sown area, barren land, permanent pastures and other grazing grounds increased by 0.85 per cent, 2.67 per cent and 0.5 per cent, respectively during the same period.

Increase in the net sown area can be attributed to the decline in the area of land put to non-agriculture uses, land under miscellaneous trees and other groves and cultivable waste.

Fig. 1
Land use pattern in Jammu and Kashmir



Source: Digest of Statistics, 1999-2000

The area under forest, net area sown, barren land, permanent pastures and other grazing grounds and current fallow showed a marginal increase during 1984-85 and 1998-99. The area under non-agricultural uses, miscellaneous cultivable waste and other fallow land showed a marginal decline during the same period (Figure 1).

LAND HOLDING

According to the state government data of 1995-96, marginal landholders (having land holdings below 0.05 to 1.00 hectare) comprised 77.97 per cent of the total population. The categorization of land holding is based on area of holding, i.e., small (1.04-2.00 ha), semi medium (2.01-4.00 ha), medium (4.01-10.00 ha) and large (more than 10 ha). The small and middle range farmers comprised 18.77 per cent and 2.63 per cent of the total land holdings, whereas the number of farmers with high landholding is below 1 per cent. The average size of small and marginal land holding shows a declining trend, and the number of bigger landholders is not increasing either. The average landholding size for the state as a whole is 0.76 ha. According to the Agriculture Census of 1985-86, average size of the marginal and small land holdings declined by 8.33 per cent between 1970-71 and 1985-86. There is an inverse relationship between the size categories and the proportion of net sown area, with the exception of the size category of 10 hectare and above. There is a positive relationship between the size category and the land available for cultivation during both the periods.

The average size of land holding is recorded maximum for Leh (1.38 ha) and minimum for Srinagar (0.37 ha). However, the value for total arable land is not the same, as the value recorded is maximum for Jammu (159.27 thousand ha) and minimum for Kargil (12.94 thousand ha). Such a difference in size of land holding of the people and total arable land exists chiefly due to an uneven demographic distribution pattern arising out of physio-climatic conditions. Ladakh district, covering about 70 per cent of the total geographical area of the state, is high plateau devoid of any vegetation, hence has only 2.5 per cent of the state's population living mostly in villages located near the rivers. This is the reason why general density of the population in the state as a whole is low, whereas the concentration of the population in some pockets is quite high.

Table III.2
District-wise Land holding pattern

District	Number of land holders (1000)	Area (1000 ha)	Average land holding size (ha)
Anantnag	166.39	81.34	0.49
Pulwama	103.61	66.28	0.64
Srinagar	87.99	32.39	0.37
Budgam	107.36	57.92	0.54
Baramulla	165.33	95.77	0.58
Kupwara	87.51	48.30	0.55
Leh	12.04	16.59	1.38
Kargil	16.63	12.94	0.78
Jammu	165.20	159.27	0.96
Udhampur	113.56	125.56	1.11
Doda	108.94	91.48	0.84
Kathua	82.94	96.57	1.16
Rajouri	66.39	79.10	1.19
Poonch	51.88	49.02	0.94

Source: Statistical Abstract, 1999-2000, J&K

Fig. 2
District-wise Land Holders and Average land holding

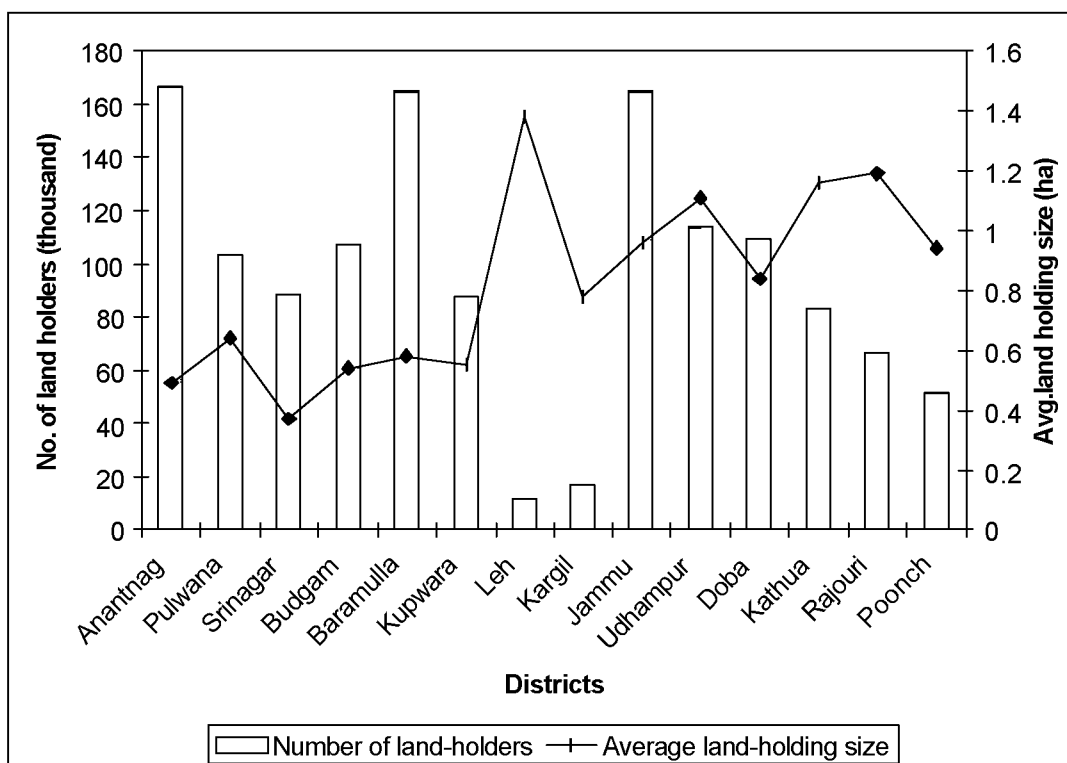


Figure 2 shows that the number of landholders varied between 166.39 thousand in Anantnag and 12.04 thousand in Leh during 1999-2000. The figures also show that in Leh the number of land holding is minimum among all the districts of Jammu and Kashmir, but the average holding is maximum. The same pattern is observed for Kargil, Poonch, Rajouri and Kathua. The aforementioned data shows that the land distribution in the State is quite disproportionate and unequal and that the number of marginal farmers has increased whereas the number of medium and small farmers has decreased. This indicates a considerably reduced concentration of landed property in the state.

CROPPING PATTERN

Owing to variations in climate, soil and nature of irrigation, agricultural operations and the system of cultivation naturally vary from region to region. In the Jammu province, there are usually two crops a year, namely, Rabi in winter and Kharif in summer. The winter crops, consisting chiefly of wheat and barely, are sown between mid September and mid January, depending upon the moisture in the fields. These

are harvested in May-June in the low-lying areas and in July-August at higher altitudes. The summer crops like rice, maize and millet are sown from mid July, according to the geographical location of the place and character of the soil. They are harvested between mid-August and mid-November.

As regards the rotation of crops, maize is often followed by wheat or sometimes by toria or barley and mustard, or by some fodder crop. The fodder crops are sometimes sown with cotton, especially on the irrigated lands. Sugarcane fields are frequently left fallow or a fodder crop is succeeded by two fallows and wheat, or by one fallow and cotton, or sugarcane. Cotton is generally preceded and followed by a fallow. Rice is generally grown on the same field year after year in the spring, the land being left fallow or some fodder crop being grown. Wheat is also sometimes grown on rich-manured fields but its output is generally poor. The rotation of crops is, however, often upset by scanty rainfall.

In Kashmir province, land generally produces one crop a year; therefore it is known as *Ekfasli*. There are, of course, exceptions. The highly cultivated garden lands in the neighbourhood of Srinagar and in some other towns give more than one crop in a year. Ploughing for rice, maize and other autumn crops in the Kashmir province commences in the middle of March. In April and May, seeds of these crops are sown. In June and July, barley and wheat, sown in the previous autumn, are harvested. In July and August, linseeds is harvested. Cotton picking commences in August and September. Maize, rice and other autumn crops are harvested in September and October. In November and December, ploughing for wheat and barely is undertaken. During the winter months, rice and maize as well as other autumn crops are threshed.

In Ladakh, like Kashmir, no customary rotation of crops is followed. However, wheat is not grown on the same land for more than two or three consecutive years, as this process is believed to weaken the soil. Wheat is always followed by gram. If the soil were much improvised, Matar or Sarshaf is sown for a year as the roots and leaves of Matars are believed to strengthen the soil while sarshaf is a crop of very short duration. The rest is allowed to restore the exhausted strength of the soil. In some villages, land called *Dofasli*, gives two crops a year. Trumba, China or kangni give preference to gram.

The time of sowing in the frontier districts differs from area to area. Generally, it commences early in the spring. In the low-lying areas, where the kharif crop maize follows wheat, the former crop is sown anytime from 15 November to 15 January when the soil is not frosty. Maize is sown in July and August. In the villages, where

gram is raised as the Rabi crop instead of wheat, the former is sown immediately after 15 January to give the cultivators sufficient time for growing and harvesting maize in the Kharif.

Table III.3
Area under different crops

Crop	Area in thousand hectare 1984-85	Area in thousand hectares 1998-99	Percentage of total food production 1984-85
Rice	274.99	270.35	30.06
Jawar	-	0.004	1.77
Bajra	17.35	10.70	2.23
Maize	281.57	311.46	29.90
Wheat	225.40	242.66	23.31
Barley	9.12	8.57	1.17
Pulses	47.13	31.88	5.35
Sugarcane	0.68	0.17	0.09
Fruits and Vegetables	54.91	65.49	5.92
Other food crops	0.79	0.459	0.20

Source: Digest of Statistics, 1999-2000, Government of Jammu and Kashmir

Table III.3 shows that among the foodgrains, the main crops are rice (30.06 per cent), maize (29.90 per cent) and wheat (23.31 per cent) accounting for 84 per cent of the total cropped area while the balance 16 per cent is shared by inferior cereals and pulses. The commercial crops of significance grown in the state are apple and oilseeds. The consequence of such a cropping pattern is that the bulk of the cultivators have little to spare for buying other necessities of life. The small quantities of commercial crops grown in the state offer little scope for agro-based industries. The state grows nearly 75 per cent of the country's temperate fruit, mainly apples, but most of the area under fruit cultivation is concentrated in the valley. The upsurge of militancy in the valley has destroyed all the initiative taken by the government to develop these areas. Towards the end of 1990s, the optimism that prevailed before the militancy over the prospects of these area was raised by the positive trends like increase in the production and increase in the export of fruits.

Fig. 3

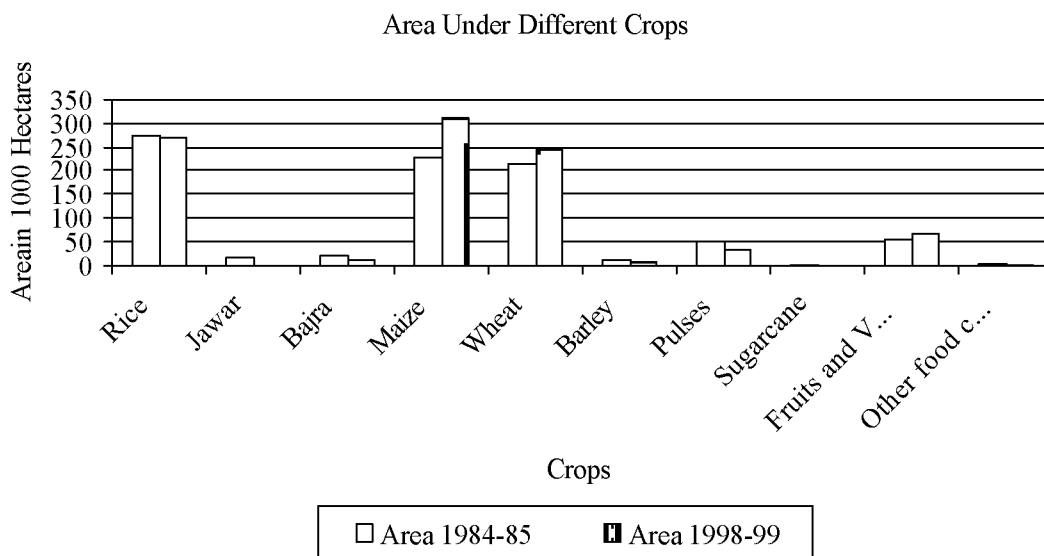


Figure 3 shows that between 1984-85 and 1998-99 there was an increase in the area under crops like maize, wheat and vegetables. There was a marginal decrease in the area under cultivation for pulses, bajra and barley.

PRODUCTIVITY

The region-wise classification of productivity of agricultural land differs throughout the state. In the case of Ladakh, the productivity of the land is on the lower side due to geographical limitation, at the same time the situation in the other region (Kashmir & Jammu) is completely reverse. Here the productivity of the land is on the higher side. So, overall productivity of the state cannot be distinguished within the region. Even the productivity of the crops differs from area to area. Rice cultivation is an important parameter for the crop production in the region. In the Kashmir region, the production of rice is different from the rest of the region. Despite climatic limitations, the agricultural production of one region substitutes for the other region. Another important aspect of the poor agricultural development in the region is that the climatic conditions of the region do not allow round-the-year-cultivation. So, in the case of J&K, despite knowledge and techniques of land-use management available at present, there are limited possibilities of raising agricultural output by increasing the area of cultivation without disturbing the ecological balance. Increase in the agricultural output would, therefore, have to be achieved only through intensification and diversification of agriculture and rational land use.

Table III.4
Productivity of Food crops 1998-99

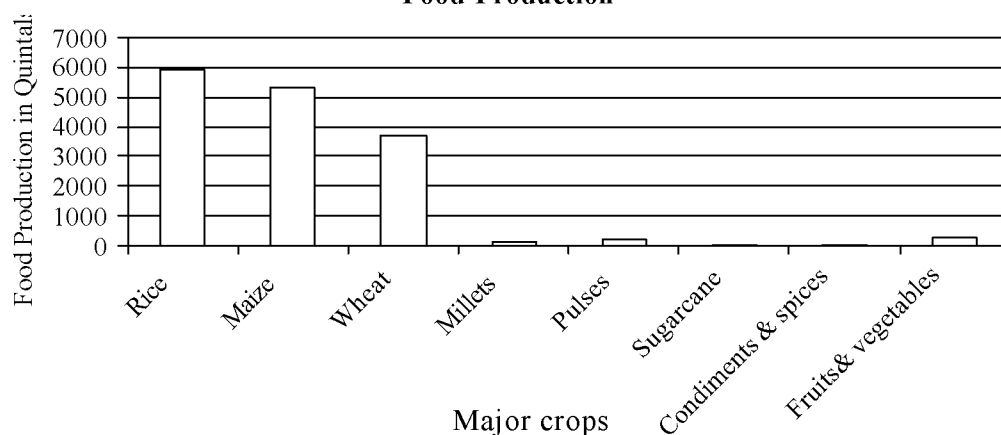
(Quintals/Hectare)

Food crops	Area (000 hectare)	Quantity produced (000qtl)	Productivity
Rice	270.35	5898	21.82
Jowar	0.004	--	--
Bajra	10.70	--	--
Maize	311.46	5324	17.09
Wheat	242.66	3683	15.18
Barley	8.57	--	--
Millets	14.22	162	11.39
Pulses	31.88	186	5.83
Sugarcane	0.17	6.09	35.82
Condiments & spices	2.36	6.00	2.54
Fruits & vegetables	65.49	267.70	4.09
Other food crops	0.459	--	--

Source: Digest of Statistics 1999-2000, Government of Jammu and Kashmir.

Table III.4 shows that the productivity for sugarcane is maximum (35.82 quintal/hectare), followed by rice (21.82 quintal/hectare), maize (17.09 quintal/hectare) and wheat (15.18 quintal/hectare). The productivity of total foodgrain was 12.49 in 1979-80, which increased to 15.22 in 1993-94 and further, increased to 16.18 in 1998-99. Productivity of rice has shown a marginal increase from 18.03 quintal/hectare to 18.57 quintal and up to 21.82 quintal/hectare in 1998-99. Productivity of wheat increased from 10.20 quintal per hectare to 14.19 quintal per hectares and it further increased to 15.18 quintal per hectare in 1998-99. Maize productivity went up from 13.48 quintal per hectare to 18.71 quintal per hectare and further increased to 17.09 quintals per hectare. The productivity of pulses decreased from 5.58 quintal per hectare to 5.51 quintal per hectare, then increased to 5.83 quintal per hectare in 1998-99.

Fig. 4
Food Production



From figure 4 it is clear that the production of three important food crops, namely, rice, maize and wheat, contributes a major portion of the foodgrain in the state. It is also clear from figures 2 and 4 that the production of the crops and area under different crops grows at the same rate. Production of the food crops has shown consistency in the past twenty years. There was hardly any impact on the productivity of the crop during the upsurge of militancy. The data of the period before and after the green revolution shows hardly any change in the production of food crops.

USE OF MODERN AGRICULTURAL TECHNOLOGY

a) Area under High Yielding Variety (HYV) Programmes

The introduction of HYV seeds, use of fertilizers and provision of assured irrigation have given a boost to agricultural growth in the state. The gains show an impressive increase in the yields of important food and non-food crops. While cereal output has shown higher growth, non-cereal crops and allied farm activities have recorded improvements. Higher output of cereal and non-cereal crops has not, however, reduced the state's dependence on food imports. The period 1979-80 to 1998-99 has been chosen to analyse changes in the cropping pattern. The choice of the reference period has been mainly influenced by the availability of the comparable data. The period before 1986-87 shows productivity in the pre-green revolution period, and the remaining period shows important changes in the post-green revolution period. The latter period also shows important changes in the production of major crops. The available data indicates that the post-green revolution era has not shown any marked changes in the agricultural production.

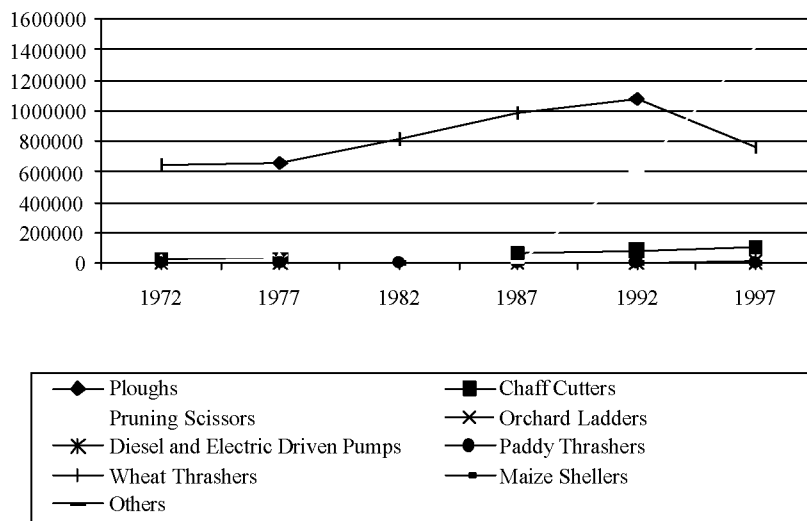
Table III.5
Use of Modern Agricultural Implements in the State

Item	Number of Implements					
	1972	1977	1982	1987	1992	1997
Ploughs	638942	652592	809773	987311	1075454	760457
Chaff Cutters	19418	28961	N.A	65644	83890	103963
Pruning Scissors	12696	23477	NA	NA	NC	NC
Orchard Ladders	1871	4163	NA	NA	NC	NC
Diesel & Electric Driven Pumps	451	881	NA	2894	3678	7915
Paddy Threshers	196	169	104	200	156	664
Wheat Threshers	129	699	1062	2506	987	1061
Maize shellers	32	N.A	159	33	35	149
Others	-	-	-	3020	597665	1417974

Source: Digest of Statistics, 1999-2000, Government of J&K.

The beginning of mechanization in Indian agriculture can be traced to the early 1960s. Since then it has progressed at a rapid pace. But certain important forms of farm mechanization are known to have remained largely concentrated in certain pockets commonly called green revolution areas. The estimates obtained from the NSSO clearly depict the development of mechanized cultivation in terms of ownership of modern machinery like tractors, power tillers and pumpsets. These estimates indicate a rapidly rising trend in the range of modern farm equipment owned, but not necessarily their actual use.

Fig. 5
Use of Agricultural Implements



Source: Digest of Statistics, 1999-2000

Table III.5 and Figure 5 show agricultural implements used in the state during 1972-1997. The figures reveal a tremendous increase in the use of agricultural implements like diesel and electric pumps, ploughs and chaff cutters, and wheat threshers whereas the demand for the paddy threshers has not increased. There were 451 diesel and electric driven pumps in 1972, which increased to 7915 in 1997. The number of ploughs increased from 638942 to 760457 and that of chaff cutters increased from 19418 to 103963 during the same period.

GOVERNMENT INITIATIVE FOR AGRICULTURAL DEVELOPMENT

The agricultural development in the state greatly depends on improving the crop intensity as well as the cropping pattern, both of which are interrelated. The one crop pattern of cultivation, predominant in the valley, is a serious limiting factor to

agricultural growth. The farm output in the valley can be considerably increased if a Rabi crop which could be harvested early enough to allow the transplantation of the next paddy crop, could be introduced.

To determine the suitable crops and to evolve their appropriate varieties, considerable research is needed. The state government has, in all the Five-Year Plans, prioritised the development of agriculture and allied sectors, and taken following initiatives:

1. *Providing seeds to the cultivator:* It is estimated that an area of about 4 lakh hectare was covered with improved seeds of cereals by the end of 9th Plan. Till the 4th Five-Year Plan, the programme had been confined to paddy and maize. However, a major part of the requirements of improved seeds is met through buying from outside the state. Only during the tenure of the 8th and 9th Plans, Jammu and Kashmir started selling seeds to other states. It has now become one of the potential sectors of the state economy. To reduce dependence on other states, certified seed production is envisaged through registered seed growers in seed villages. During 1997-98 a quantity of 6300 quintal was procured and during 1999-2000 a quantity of 14500 quintal of seeds of paddy, wheat, pulses and oilseeds were proposed to be produced and procured from seed village areas. For the Jammu region, an amount of Rs 300 lakh has been proposed during the whole period of 9th Plan. This amount is envisaged to be spent on subsidy on the seeds being procured for distribution among the farmers. During the year 1998-99, an amount of Rs 66.26 lakh was provided as subsidy on different crops.
2. *Increasing uses of fertilizers:* The changes adopted in agriculture were confined to a limited number of farmers, but the major breakthrough in agriculture can come only when a vast number of farmers throughout the state use inputs like fertilizers, seeds and pesticides. Use of fertilizers (inorganic) was introduced in the state during the 1st Five-Year Plan (1951-56). Initially the Department of Agriculture had to undertake a number of extension measures and provide incentives to farmers to make chemical fertilizers popular amongst the farming community but with increased awareness regarding the merits of the same, their use (consumption) has steadily increased over the years, especially of Nitrogen (N) touching an average level of 43 kg. /ha against the highest of 143 kg/ha. in district Ludhiana (Punjab) and the national average of 76 kg. /ha.
3. *Training Support:* *The Government Farmers' Training Centre, Ganderbal provides training to farmers, especially the womenfolk, in various districts of the Kashmir division. The NAEP provides enough opportunities to Agriculture Technocrats/officials for specialized periodic training. During 2001-02 the Department of Agriculture arranged 126 camps for training.*

CHALLENGES FOR THE DEVELOPMENT OF AGRICULTURE

- There is no law on minimum land ceiling for areas used for crop production. The State has not been enforcing a strict ban on use of irrigated land for non-agricultural purposes.
- State cultivation has not taken increasing cropping intensity, average yield by way of optimal use of inputs, and full adoption of recommended production technologies.
- Less credit flow in the beginning of the cropping season for the farming community with a guaranteed minimum price support.
- Lesser emphasis on post-harvest technologies, including handling, storage, transportation, processing and marketing.
- Lack of facility for insurance cover for major crops.

FOREST DEVELOPMENT IN JAMMU AND KASHMIR

Jammu and Kashmir has a total forest cover of 20441 sq. km out of which 11019 sq. km (53.9 %) and 9422 sq. km (46.1%) are dense and open forest respectively. Forests are valuable ecological and economic assets for a hilly state like J&K. The very existence of human and cattle population is dependent on forests. There is a great diversity in the floristic regions of the state.

Table III. 6
Region wise forest area of J&K

(Area in sq.km)

Region	Total area	Forest area	Percentage of forest area to total area
Jammu	26293	12066	45.89
Kashmir	15948	8128	50.96
Ladakh	59146	36	0.06
Total	101387	20230	19.95

Table III.6 shows the region-wise break up of forest area in the state. The overall area under forest cover is lower than the national average. This is due to the fact that the area under forest cover in Ladakh is less than 1 per cent.

IMPORTANT ISSUES FOR FOREST DEVELOPMENT

1. Approximately 48 per cent of the rural population are directly or indirectly dependent on forests. Due to the Forest Conservation Act, no green felling is allowed. Only dry felling is allowed which cannot meet the local need, hence illegal felling is widely prevalent in the area.

2. Due to militancy the forest department does not have effective control on forests.
3. The forest area is not properly demarcated. Due to population growth there is encroachment on the forest area for housing and extending the area under agriculture.
4. Forest records are not properly maintained. The revenue department and the forest department records do not match.
5. Forest fires are prevalent in the Jammu region. Generally in the summer, Chir forests succumb to forest fire. So far the forest department has taken no concrete steps to prevent this.

RECOMMENDATIONS

The state government should plan for higher production and productivity of each major cereal in order to achieve an annual agricultural growth rate of 3 to 4 per cent. In this regard state agricultural department could adopt the following policy:

1. State could shift its agricultural development strategy from food security mode to the value addition mode. The state should grow certain products like high-valued fruits, vegetables and some cash crops, which could give adequate monetary returns to the cultivators. Low productivity and decreasing returns from agriculture are the main reasons for low motivation among cultivators.
2. For optimum utilization of the productive potential of the primary sector, diversification should be the main focus. However, the state should not follow a uniform policy of diversification for all the physiographic regions of the state. Agro-climatic crop planning for each physiographic region should be evolved with the help of experts. This calls for in-depth studies to:
 - Make a realistic assessment of the available resources,
 - Explore cost-effective means of transfer of technologies,
 - Work out forward and backward linkages.
3. A few diversifications have taken place in the Kashmir valley, showing a positive trend in terms of returns. The cultivators in Baramulla have now started cultivating vegetable in the cereal fields, which gives them more return. Still, more initiative is needed in the agricultural diversifications.
4. The agricultural economy of the state is a subsistence economy. The low return from agriculture is one of the reasons for the lesser participation of people in these

activities. The state should formulate a strategy to bridge the gap between the agriculture research institute and the cultivator. Most of the cultivators hardly get any benefit from agriculture. Presently the state government has taken certain initiatives in this direction. The Kissan Behbud (welfare) committee is an interface programme between progressive farmers at the village committee level and agriculture research institute. Yet a lot remains to be done in this area.

5. The state government should provide adequate training to farmers about the use of modern technology in agriculture.
6. One important aspect for the increase in productivity is credit to the farmers. In J&K this facility to the farmer is completely absent. The state should initiate this through the nationalized bank, so that the cultivators get adequate finance on credit for agricultural development.
7. Availability of inputs, e.g., seeds, fertilizers, pesticides, credit, etc., should not only be ensured regularly but their quality extensively checked. There are already some provisions existing in the state but more needs to be done.
8. Subsidy on the inputs should be targeted and selective. The state government should examine a suitable crop insurance scheme. These kinds of initiatives strengthen the confidence of the cultivators.
9. The state government should encourage a mix of supplementing crops in each region. For instance, in the Valley floor and plain areas of Jammu region, the crops which do not either compete with each other or can be grown off season should be the basis of diversification. The *Karewas* of Kashmir and *kandi* areas of Jammu region are best suited for dry farming, horticulture and fodder crops. The side valleys should be earmarked for fodder cultivation and cultivation of medicinal plants. However, these examples are illustrative and demonstrate the need for evolving the micro-region specific diversification strategies. Comprehensive cost of cultivation studies needs to be conducted in each zone.
10. In the Ladakh region, seed production of cauliflower within one season using poly-green house technology has been a successful attempt. Through the same method, this region can produce seeds of cabbage, onion, raddish, *karam saag*, carrot and Swede. This can open up a new vista for the farming community of

Ladakh, not only towards self-sufficiency but also for export of seed outside Ladakh.

11. The farmers of the Ladakh region have successfully experimented the cultivation of vegetables in the poly green houses. Three varieties of tomato namely SL-12, PED and AC-238 and N-13 Nasik red onion have shown a positive result in production. Among other vegetables are brinjal, capsicum, broccoli, green chilli and paprika. This can ensure supply of vegetables to metropolitan cities during off-season and fetch a good price. From Ladakh the only viable mode of transport is airfreight. Hence there is a need for working out an arrangement so that quick transportation of these products can be organized.
12. The Ladakh region has great potential in the field of floriculture as well. In a primary study conducted by SHUAST (K), it was observed that super class flower cuts bearing up to 23 florets can be produced through polyhouse technology in Gladioli. This indicates that floriculture can play a vital role in uplifting the socio-economic status of farmers.
13. The state government should also encourage the production of high-value, low-volume crops like saffron, black zeera and other spices. The Kashmir region is ideally suited for the cultivation of these kind of non-traditional crops. It has been observed that during the past three years the area coverage and production of the spices has been constantly declining.
14. Apiculture is another important area with a lot of potential. In the Kashmir division the fauna and flora required for nectar collection is available in abundance through existing orchards, field crops and wild flora. During the 8th Five-Year Plan the number of bee colonies in the valley was 15,400, which increased to 20,000 during the 9th Five-Year Plan and consequently honey production increased from 180 MTs to 240 MTs. The state government should encourage the people by way of distribution of beehives, bee-colonies and other appliances on subsidized cost with technical guidance.
15. Adaptive research output should be the answer for agricultural development in the state. Research on multiple cropping, improved seeds, crop rotations, water management and dry land farming should take the local factors into consideration and use the results of repetitive trials as the basic input for research studies. The research output of the State and Regional Research Institute of Kashmir and

Jammu has not show any major achievements in the area. It is time to review the objective of this research institute. State government should also provide the infrastructure to the private investor to set up agriculture and biotechnology research institutes.

16. The state produces very limited quantities of a specific variety of garlic in the Jammu division. This garlic is highly prized because of its anti-cholesterol nature and the cultivation of anti-cholesterol must be increased by expanding its area.
17. The climate of the state is ideally suited for production of exotic, high-value vegetable crops like Broccoli and Mushrooms which can be grown profitably in the Jammu division. What is needed is a planned, integrated approach, which takes care of production as well as marketing of these perishable, high-value crops.
18. The state has potential for agro-based industry which needs to be tapped. The food industry has a very high multiplier affect. Besides appropriate cost-effective technology, assured supply of quality inputs and uninterrupted transport facilities are crucial for the development of agro-based industries. In this respect, the development of all weather air, rail and surface transport should be given top priority.
19. The monitoring of the various schemes physically against the target fixed by the department is an essential factor. The state government should involve non-governmental agencies for the evaluation of the schemes and encourage participation of the village community in the monitoring of the scheme.
20. The Sisal Propagation Scheme (SPS) introduced in the 8th Five-Year Plan shall continue in the 10th plan because it is beneficial for the weaker sections of the society. It shall be upgraded and the technology evolved in the past utilized to educate the common masses in rural areas to implement it in the entire districts of Jammu region.
21. Schemes like pasture development, Ladakh soil conservation programme and soil conservation programme on forest lands should continue and spread to vast eroded chunks in new areas so that direct and indirect benefits are received by the common man.

22. The state government should pay attention to short-term soil conservation measures aimed at stabilizing smaller slopes, preventing under-cutting of *nallahs*, and gully control measures in the initial stage of development.
23. The gap between the national average and the existing status of the state forests can be fulfilled by social forest. The state government should take certain initiatives to develop social forestry in the state.
24. The infrastructural facilities have improved during the past decade but more attention is required. The state government should increase the budget allocation for forest development.
25. The state forest department should prepare some project for the entire state and approach funding agencies like the World Bank, Ford Foundation and others for support. Presently only one project, i.e., integrated watershed development programme, in hills is running in the state.
26. People's participation for forest conservation is limited and has not become a people's movement. The village committee needs to be strengthened for National afforestation to be properly implemented.
27. To increase the plantation on the wasteland the state government should promote the participation of voluntary and other agencies.
28. Jammu and Kashmir has a lot of potential for the cultivation of medicinal plants for natural health care. The state government should approach the medicinal plant board to extend their support for the development of medicinal plants. Support and facilities for extraction, storage, value addition and marketing also need to be increased.
29. Opportunities for training, awareness and capacity building of the forest staff and village forest committee need to be increased.
30. Many people are dependent on the Chir forest. These forests need to be resurveyed. For plants which are ready, razing should be allowed.

2. ALLIED SECTORS

FISHERIES

Introduction

Traditionally, fisheries in Jammu and Kashmir were developed and popularized as sport fisheries, primarily as a means of attraction for tourists. During the past few years, there has been a reorientation towards development of fisheries as a major food resource. The diverse agro-climatic conditions of the state are a tremendous potential for the development of both cold and warm water fisheries. This is an important activity allied to agriculture and can strengthen the productive base of the agricultural economy and generate self-employment, an aspect which has not been explored properly and fully till now.

The total number of fisherman population is around 9655. The length of 27781 km of rivers/streams facilitate the farming of more than 40 million tonne of fish. Out of a total 27781 km of area under fisheries the state has only 0.07 lakh hectare under reservoir area. There are 1248 lakes and water bodies and the water is spread into 39921.8 hectare of area. The state has also reported 125 fish species, of which only 11 are commercially important. The total fish output being 188510 quintal in 1998-99, the per capita annual output amounted to one kilogram, i.e., less than three grams per day. (Godbole report, 1998). There is a big gap between demand and supply of fish. Fish is a valuable element of diet of the local people throughout the year, and there is also a demand for fish from the defence personnel and from tourists, especially during the tourist season. By harvesting the potential of fisheries in the state appropriately, considerable impact will be made in terms of fish production, revenue generation and employment creation as well as improving the nutrition level of the common man.

Production of Fish

The fish output is mostly confined to the valley - Baramulla (47 per cent) and Srinagar (36 per cent) districts, accounted for the major share of the state's fish output in 1998-99. Out of the total fish produce, about 80 per cent of the fishing activity takes place in the lakes and the rest from rivers. There are four types of fish available in Jammu and Kashmir, viz., trout, mirror carp, country fish and Jammu fish. The predominant variety is mirror carp forming 61 per cent of the total output. The other three contribute 40 per cent of the total fish production (Table III.7).

Trout fishing holds great potential in terms of increased income rather than output through proper harvesting.

Table III.7
Fish Production in Jammu and Kashmir

Quantity (in Quintal)

Year	Kashmir Province				Jammu Province	
	Trout	Mirror Carp.	Country Fish	Total	Jammu Fish	Total State
1970-71	60	36917	20291	57268	4909	62177
1980-81	79	62712	29914	92705	2713	95418
1985-86	144	67950	32050	100144	5030	105174
1990-91	62	82558	30391	118011	17000	135011
1994-95	125	105800	35500	141425	19575	161000
1995-96	182	106521	37828	144531	20669	165200
1996-97	248	112021	40588	152857	22944	175801
1997-98	454	114360	42588	156982	28318	185300
1998-99	561	115296	42407	158264	30246	188510

Source: Statistical Digest of Jammu and Kashmir, 1999-2000

Due to state government initiatives, the output of fish has increased in the past few years. Fish production, went up from 135011 quintal in 1990-91 to 188510 quintal in 1998-99. In Kashmir and Jammu provinces in 1998-99, it was 158264 and 30246 quintal respectively. The state government claims that J&K has become self-sufficient in the matter of fry and fingerlings of mirror carp.

Infrastructure Facilities for Fisheries Development

There are 18 state-owned trout hatcheries located in the districts of Srinagar, Anantnag, Pulwama, Baramulla, Budgam, Doda, Rajouri and Kargil and these have played an important role in boosting trout culture. The hatcheries have a dual role: one, as an agency for commercial production and two, as an agency for the stocking of the rivers and lakes and distribution of fingerlings to private farms. By developing trout hatcheries as agencies for distribution of fish seed, the state government can increase its income.

Besides, the Department also runs a mahaseer hatchery at Anji and fish farms at Srinagar, Budgam, Anantnag, Pulwama, Baramulla, Kupwara, Jammu, Kathua, Udhampur, Doda, Poonch, Leh, Kargil and Rajouri. This infrastructure gives considerable boost to the fisheries activities in the state.

One of the important items under infrastructure is the fish farm. Under the Infrastructure Development Programme, 22 fish farms have been set up in the state. The State National Fish Seed Farms are located at Kathua, Anji, Muradpore,

Ghomansion, Nowabad (Jammu), Narbal, Trigam, Pandach, Kohru (Kashmir), Shey and Damsana (Ladakh). Some fish farms have the latest technical trout fish farming, viz., Laribal, Kokernag, Beerwah, Mammer (Kashmir), Phalni, Gatha, Shalimar (Jammu) Wakha (Kargil) etc. The state government has also taken steps to develop private fish farms. 811 fish farms among rural masses have been identified, two-thirds of which are in Jammu. Ponds which had been neglected were badly silted. The department is also using fish seed of fast growing species.

Employment Opportunities in the Fishing Sector

The population dependent on fishing is minimal (Table III.8), although the number of labour force engaged in fishing shows a consistently increasing trend, figures nearly doubling from 5446 workers in 1972 to 1997. Fishing is important not only for the state's revenue generation, it also provides employment to the people. By improving the infrastructure and harvesting the new potential area, the state can increase both. Besides, the development of fisheries can also provide employment in the tourism sector and a lot of opportunities can be generated in the marketing and packaging of fish.

Table III.8
Labour force engaged in fishing

Year	Population dependent on fishing	Labour force engaged in fishing
1972	20340	5446
1977	34853	3779
1982	24044	7322
1988	21741	4588
1992	37222	9356
1997	25816	9655

Source: Digest of Statistics, Government of Jammu and Kashmir, 1999-2000

Potential Areas for development

- Ladakh Region has vast water resources with a high potential for fish culture. Very few of these water bodies have been tapped. The steps taken by department of the state need to be accelerated.
- The panchayats in the state have nearly 500 ponds under their control which, due to lack of cooperation between the Department and the panchayats have not been properly utilized for fish production. Improving these ponds can augment fish production.
- The water of Jammu and Kashmir is suited for the fishing of carps-catla, rohu, silver carp and mirror carp. Properly harvesting of the potential in the area can fulfill the local needs.

- Fishing in manmade reservoirs is an important activity in many states and can become one of the important sources of revenue for the state. J&K however, has only one manmade reservoir in Salal. The state needs to give proper attention to this area to increase fish output.

Challenges

- One of the important challenges faced by this sector is the lack of training to fish farmers, only 1183 in J & K being trained annually as against over five lakh in the country. At present, the state has only two Fish Farmers Development Agencies as against a total of 414 in 26 States of India.
- Two, fish marketing faces several problems. Fish is a commodity of highly perishable nature requiring the provision of ice plants, cold storage and refrigerated vehicles. There is only one fish-marketing project in progress and more are required.
- Three, there is inadequate research support for development of paddy-cum-fish culture.
- Four, the fisheries reservoir is not sufficient to fulfill the demand for fish.
- Brown trout, has a specific problem of being fed at the early fry stage. This stage is very crucial, as it does not accept artificial feed. More reservoirs are required.

Policy Recommendations

- (a) The state has extensive inland water bodies, particularly in the valley, which provide excellent habitat for almost any kind of temperate fish. The lakes cover an estimated 0.3 lakh hectare, predominantly in the valley (about 98 per cent of total). River Jhelum flowing, over 162 km in the valley, with its extensive tributaries has enough potential to sustain fish production.
- (b) The Indus river system has carps, catfishes, the exotic rainbow and brown trouts. The trouts of Kashmir are very rich and attract sport fish enthusiasts.
- (c) The state offers a favourable habitat for sport-fish like trout in its cold-water streams, particularly in the Lidder and Sindh valleys.
- (d) Paddy-cum-fish culture is gaining rapid ground in the tropics and subtropics but not in temperate climate. Fish farming as an adjunct to paddy cultivation has a lot of potential either as integrated simultaneous crops or as different crops in the same lands in alternate seasons. Such possibilities with particular reference to compatible fish species should be studied scientifically and a package of technical and management practices evolved for propagation among farmers.

- (e) To improve marketing of fish, particularly the fish harvested in Jammu region, which is closer to the Punjab, the possibility of selling fish in the neighbouring Punjab districts of Gurudaspur, Amritsar, Jalandhar and Ludhiana should be explored and private enterprise encouraged for the marketing of fish.
- (f) Infrastructure support by way of purchase of refrigerated containers or vehicles and working capital, should be extended to private sector.
- (g) To attract fishing enthusiasts from within and outside the country, catch and release sport should be launched and fishing festivals or tournaments organized. In short, fishing should be made part of tourism promotion in the state.

LIVESTOCK SECTOR

Introduction

Agricultural development has been associated mainly with an increase in the production of cereals. In India majority of the people have less than one hectare of land. Due to small holdings, it is not possible to develop infrastructural facilities and these cultivators are unable to meet the basic requirements for their livelihood. Here the development of livestock plays an important role in terms of providing basic necessities. Livestock have formed an integral part of the farm economy. Animals are valued for their draft power, manure, dairy products and meat. In addition, livestock provide income and employment to the weaker sections in the rural areas. In Jammu and Kashmir animal husbandry constitutes a vital activity. From the point of view of the farmer, nearly 0.13 per cent of gross state domestic product (SDP) is contributed by this sector which is an important segment in the over all 33 per cent contribution by the agricultural sector. The state has a precious wealth of livestock in the form of cattle-buffalo, sheep, goats, poultry etc. About 79 per cent of the population in Kashmir is based in rural areas and depends largely on the income generated by the agricultural and animal husbandry sector. Cattle and poultry amongst all livestock are considered the most important tool for the development of rural economy. Animals, besides being the main source of draught force, also provide essential foods like meat, milk, etc, and large quantities of animal by products such as hide, bones, blood, guts and valuable organic manure. The production of *pashmina* shawls, carpets, shawls and blankets of Kashmir earn handsome foreign exchange for the nation. Therefore, the animal industry in the state has vast scope for exploitation and quick economic returns.

Livestock population

The state has different types of livestock the important being cow, buffalo, goat, sheep, rabbit, yak, etc. There is a total of about 91.751 lakh animals livestock population. The estimated cattle population of J&K was recorded as 31.75 lakh (1997 census) constituting about 34.60 per cent of total animal stock in the state. The sheep population comes second, constituting 34 per cent of total animal stock population, followed by the goat population (19.71 per cent of total animal stock). The distribution of livestock differs in different zones. For example, the goat is mainly distributed in Ladakh, Gurez, Karnath and hills of Baramulla. There are different kinds of sheep breeds like Baderwahi, Poonchi, Rambouillet (Jammu region), Karnahi and Gurezi (Kashmir region), Changthangi and some local breeds (Ladakh). The Kashmir region has about 55 per cent of sheep population followed by Jammu (about 29 per cent) and Ladakh (about 8 per cent). Yaks are chiefly confined to the Ladakh region.

Table III.9
Total Animal Stock in 1997

(in Lakh)

Types of Animals	Numbers
Sheep	31.695
Goat	18.095
Buffalo	7.878
Horses/ponies	1.505
Yak	0.330
Camel	0.037
Poultry	46.30
Cattle	31.75
Animal stock	91.75

Source: State Animal Husbandry Department

Livestock production

In terms of livestock production there is a gap between demand and supply. Due to the climatic condition there is a great demand for meat and warm clothes in the valley but the breeds of animals, available in the valley are unable to provide these components in sufficient quantities.

Table III.10
Production of Milk, Eggs, Wool, Fish and Mutton

Year	Milk (M.Tonne)	Eggs (Millions)	Wool (M.kg)	Fish (Th.tonnes)	Mutton (Lakh kg)
1990-91	0.56	283	-	-	-
1991-92	0.58	294	3.59	14.05	-
1992-93	0.60	289	3.60	14.30	-
1993-94	0.63	317	3.80	14.50	-
1994-95	0.65	320	4.01	16.10	-
1995-96	-	-	-	NA	-
1996-97	0.90	396	4.9	NA	199.47
1997-98	0.95	423	5.5	NA	219.13

Source: Animal /Sheep Husbandry Dept.

Table III.10 shows that in the past seven years, there has been constant increase in the products and by-products of livestock. However, the output vis-à-vis the number of animals is not sufficient. In other parts of the country, people are using different breeds of animals and getting more returns. In Kashmir, quantity of output from the new breed of cow is much more than the local one but it is advisable for the state government to modernize the sector to meet the domestic and outside demand for the livestock products. At present Jammu and Kashmir is dependent on other states like the Punjab and Himachal Pradesh to supplement their poultry products and milk supply, despite the fact that the state itself has the potential to provide and meet the domestic demand.

Challenges

The most important challenge for the animal and sheep husbandry sector is the problem of fodder in the winter season, particularly for the Valley. In the light of this, there is need to introduce non-conventional feed and fodder resources.

The second biological component influencing animal development and growth is habituating under certain eco-system, for instance, liver fluke disease of domestic animals which is prevalent in marshy humid climatic conditions, e.g., places around Wular Lake in Kashmir Valley. Certain disease foci are permanent. The third challenge is high livestock farming costs. And last, the poor research output available to develop this sector.

Potential for livestock development

Sheep provide valuable manure for improving agricultural productivity. Their skin has high commercial value. The quality of wool of Kashmir sheep varies from the fine to the coarse type.

Goat hair is used for making ropes, coarse blankets and *namdas*. The manure of about 5000 goats, produced in one night, is considered to be sufficient for one hectare of agricultural land as a valuable fertilizer.

Pashmina or *Changra* goat produces softest and warmest animal fibre used for high quality fabric (*Pashmina* wool). This pastoral farming is confined to the highest belt called 'Changthang' area of Ladakh around 4300 meters above sea level. The initiatives taken by the state government to improve productive potential of goats despite lot of scope for the same have so far been inadequate.

Yak meat also has a demand among the local people. Yak hide is used for making leather, hair, ropes, grain bags etc. while its fine undercoat is used for making tents called 'Rebo', shoes and sweaters, and tail hairs are used for making ceremonial fly whisks (*chauri*).

Jammu and Kashmir also has a great potential for production of rabbit meat, fur and wool. About 15-20 rabbits can easily be raised and managed by a farmer's family without any additional cost. There is also demand for biological research.

Policy Recommendations

- (a) The use of non-conventional feed and fodder resources is one of the important areas for development of livestock in the state. The Agriculture University of Kashmir has done some research work to convert the agricultural waste into cattle feed. What is needed is that the state government should commercialize this research output either through its own or private initiatives.
- (b) Jammu and Kashmir provides a suitable climate for cattle breeding. In other parts of the country, one has to create an artificial climate for cattle breeding and the success rate is also low. In Kashmir this initiative gives an added advantage and the success rate is also high. The state government should take steps to establish cattle breeding centres. It should open frozen semen centres in remote areas to cover all local cattle population.
- (c) The demand for poultry products is constantly increasing. Due to climatic conditions, it has become the part of the regular diet. The state government should encourage the development of poultry through modern technology and take up some short-duration projects along with NGO development.

- (d) Improvement of local sheep by crossbreeding with fine wool breeds (Kashmir Merino, Russian Merino, Starapol, Caucasian Marino, Rambouillet) can improve wool production qualitatively as well as quantitatively.
- (e) Sheep crossbreeding with Polled Dorst (Mutton breed) has remained confined to selected pockets in the Valley such as Hajan block. Corriedale breed has shown good adaptability and performance in the orchard belt of Kashmir, i.e., Shopian area. The government should promote this initiative in other areas of the state as well. It is advisable to develop biotechnology research for enhancing animal productivity.
- (f) The state Sheep Husbandry Department has considerably improved wool production in the state but the increase in mutton production has not been impressive. The state is largely dependent on adjacent states for its ever-growing demand for mutton and steps to increase its production are warranted.
- (g) The Kathua and Jammu districts, which are contiguous to Poonch and Rajouri districts and also to the Punjab where Gujjar population predominates, are ideally suited for dairy development. By forming Gujjar co-operative societies and giving them technical and financial inputs, the milk yield can be improved.
- (h) The state government needs to introduce low-cost village level technology for better use of animal products, processing and marketing.

DAIRY DEVELOPMENT

Introduction

Jammu and Kashmir is ideally suited for dairy development. The state has registered a steady growth in milk production. The State's milk production in 1995-96 was 3.69 lakh metric tonne which stood at 6.66 lakh metric tonne in 2001-02. The per capita milk consumption is 325 ml/day and national average milk consumption is 240 ml/day vis-à-vis the actual requirement of 283 ml/day. In 2000-2001, J & K became a milk surplus state

Cattle profile

Table III.11 shows a constant increase in the number of buffaloes and cattle. The number of buffaloes and cattle per hectare of cultivated area has also increased, while the number of livestock population per 100 people has decreased from 1956.

Table III.11
Profile of cattle and Buffaloes in Jammu and Kashmir

Year	Buffaloes and cattle (Lakh)	Buffaloes and cattle per ha of cultivated area	Livestock population per 100 people
1956	21.32	3	132
1961	22.09	3	115
1972	25.49	3	90
1982	28.88	4	97
1988	33.61	4	104
1992	37.87	5	110
1997	39.63	5	100

Source: Indicator of Economic development J&K, 1998-99

Milk production

Table III.12 shows constant increase in the quantity of milk production from 1974 to 1998. This growth is not at par with other states like the Punjab and Gujarat, which are the pioneers in the field of dairy development. There is need for more emphasis on the dairy development in the state, the Jammu region having lot of potential for dairy farming. What is needed here is the introduction of some new breeds. In the Punjab the number of local breed of cattle is less than in Jammu and Kashmir but in terms of cross-bred milk animals, the Punjab is ahead to J&K because the crossbred cow gives three times more milk than the local breed.

Table III.12
Milk production in J&K

Year	Milk Production in (Lakh tonne)
1974-75	1.85
1980-81	2.40
1984-85	3.53
1987-88	4.28
1989-89	4.50
1989-90	4.86
1995-96	8.70
1996-97	9.92
1997-98	11.79

Source: Indicator of Economic development J&K, 1998-99

The Jammu region has the potential to increase production of milk and also market the surplus milk to other regions of the state. Up to 1999-2000 the demand for milk and milk products in the valley was fulfilled by the Punjab but through proper initiatives and planning state government can sustain self-sufficiency in milk production.

Employment Opportunities

Dairy farming is a household activity largely done by domestic labour. The majority of families have two to three domestic labourers. Very few people have engaged hired labour for dairy development. This shows that in Jammu and Kashmir, dairy development activity is still a subsistence activity but income and employment opportunities can be increased through the modernization of this sector.

Policy Recommendations

Privatising Specific Animal Husbandry Services

Presently, the government's Animal Husbandry Department provides animal husbandry services. However, due to lack of adequate funding, the department has not been able to provide these services effectively. Almost 70 per cent of its expenditure has gone towards veterinary services and animal health while other important activities such as breed and fodder development, and extension and training, have received only small allotments. The solution lies in allowing qualified private parties to provide some of these services. At the same time, some services will have to be provided by the government. Selective privatization of animal husbandry services would be the preferred approach. Services in which public interest is greater than individual interest, e.g., eradication of diseases, programmes for weaker sections, extension and education for weaker sections/areas, would continue to be provided by the government. Where the state government continues its services (for example, in areas where no private investor comes forward), it will do so purely on a cost-recovery basis.

Creating Feed and Fodder Development Programme

In Jammu and Kashmir, feed and fodder which forms 60 per cent of milk production cost is a major constraint to the growth of dairy development. In the Kashmir and Ladakh region there is no fodder available for animals during winter. So the government should spearhead a programme to develop this area.

Building Infrastructure

The development of the dairy sector needs to be based on the provision of

specialized infrastructure such as farm bulk coolers and refrigeration systems as well as basic infrastructure like power and water. Providing a cost-effective and continual supply of power and water to procurement and processing units needs to be top priority. This will reduce costs and improve milk quality considerably. The government will also need to upgrade rural roads leading to milk collection centres (or even, as a first step, from milk collection centres to milk processing units). This will increase the frequency of collection, reduce logistical costs, and improve the quality of the raw milk. Most of the specialized infrastructure required will be built by investors themselves, whether corporations or cooperatives. However, the government can play an important facilitating role. For instance, it could lobby the centre to reduce duties on refrigeration and cold storage equipment. This would reduce the high capital costs that make it unviable to set up this infrastructure today.

Focusing on traditional strong regions

The development effort will initially be focused on Pulwama, Kupwara and Srinagar districts of Kashmir region and Doda district of Jammu region and Ladakh in which dairy activity is established. In these regions the number of cattle, availability of fodder, proximity to large markets and working co-operative structures are fairly well developed. Once this area is developed, the system can be replicated in other parts of Jammu, Kashmir and Ladakh regions.

SERICULTURE

Introduction

India is the second largest producer of silk in the world, after China. It has the unique distinction of producing all four varieties of silk: mulberry, eri, tasar and muga. Mulberry accounts for 92.5 per cent, Eri 5.3 per cent, Tasar 1.7 per cent and Muga 0.5 per cent of the total raw silk production in the country. The rearing of silk worms on mulberry trees for the production of raw silk is known as sericulture. Mulberry silk is produced mainly in Karnataka, West Bengal, Jammu and Kashmir, Assam, the Punjab, Tamil Nadu and Andhra Pradesh.

Sericulture is one of the traditional occupations of Jammu and Kashmir. It is the only traditional univoltine belt in India, capable of producing silk comparable to the fine qualities of raw silk imported in the international market. Kashmir introduced far better silk both in quality and quantity than Italy and Japan 60 years ago. The climate of Kashmir is temperate and congenial for rearing both univoltine and bivoltine silkworm species for cocoon production. These cocoons are far superior to

the multivoltine ones produced in the rest of the country. It is disheartening that the silk industry of J & K, which has seen a glorious past, is on decline. Still a large section of the population is dependent on sericulture. In the year 1999-2000, as many as 25.28 thousand families were engaged in extraction of silk fibre. During the same period, 2.15 thousand villages were engaged in sericulture production. The state has about 1402 thousand mulberry trees, of which 883 thousand are in Jammu division and 519 thousand in Kashmir division. During 1999-2000 about 80 thousand kg of raw silk was produced at the cost of around Rs. 3.5 crore. Still the state is not able to harvest its new potential area and protect its existing trees. Inadequacy of mulberry leaves and damage caused by insects and pests are the major problems in the development and expansion of mulberry trees. The Sericulture Development Department is laying stress on raising dwarf mulberry trees to supplement and replenish the traditional tall mulberry trees.

Area under Mulberry Cultivation

The State has 2,850 hectare of land under mulberry plantation, out of which 1,990 hectare are in the Jammu division and 860 hectare in Kashmir division. The area has been calculated on the basis of 1800 trees per hectare as the plantation is in highly scattered form (Godbole Report).

Table III.13
Number of mulberry trees in Jammu and Kashmir

Years	Mulberry trees (000 nos.)	Seeds Produced (000/OZ)	Seeds Imported (000/OZ)
1980-81	601.00	24.80	10.00
1985-86	724.00	24.75	7.62
1999-00	1402	17.00	27.12

Source: Statistical Abstract, Government of Jammu and Kashmir, 1999-2000

Despite several initiatives taken by the state government, the number of mulberry trees is still very low. During 1980-81, there were 601 thousand trees, which increased up to 1402 thousand in 1999-00 (Table III.13). The number of seeds imported shows a major increase in the past twenty years but the production of the cocoon is not showing the same trend. According to the Godbole Report, the Sericulture Department annually used to provide 14 lakh, one-year-old mulberry saplings for planting either in the farmer's land or in community lands. Since the planters do not give proper attention to the plantation at the establishment stage, the survival rate is very low. This is one of the reasons for the slow growth of mulberry trees in the state. The other reason for the slow growth of mulberry plantation is the

low return from this activity. Due to geographical limitation, the rotation of the cocoon production in Jammu and Kashmir is not possible. It is produced only once in a year (in the month of March in Jammu and May in Kashmir). Whereas in Karnataka the mulberry cultivation and the cocoon production is not a seasonal activity for the cultivators.

Silkworm Rearing

The cocoons produced by hybrids are used for extracting the silk fibre. For preparing the hybrid silkworm eggs, rows of silkworms are raised in separate areas. The cocoons are preserved properly in the egg-producing factories, popularly called silkworm grainages; the moths are allowed to emerge. Due to climatic conditions in Jammu and Kashmir, the rearing of silkworms is practised once a year, during May-June.

Presently the average cocoon production per ounce of silkworm seed is 31 kg in Jammu division and 20 kg in Kashmir division, which is low compared to the national average of about 38 kg, per ounce.

Table III.14
Production of cocoons in Jammu and Kashmir

(1000 quintal)

Year	Production of Cocoons (000 Qtl.)
1980-81	10.36
1985-86	6.42
1990-91	7.00
1995-96	5.81
1996-97	7.67
1997-98	7.83
1998-99	8.29
1999-00	8.25

Source: Statistical Abstract 1999-2000, Government of Jammu and Kashmir.

According to Table III.14 quantity of cocoon production is inconsistent, one of the reasons being the climatic limitation of the state. Low productivity may be attributed to inadequate rearing equipment. As a result, proper growth and development of silkworms does not take place. Through certain initiatives of the state government, the state can overcome from the problem like

- (a) assistance for rearing kits;
- (b) assistance for rearing sheds;
- (c) demonstration of new technologies; and
- (d) replacement of traditional silkworm races with improved varieties.

The state government is negotiating with the Central Silk Board and Universities to get more productive silkworms. During the 10th Plan the state government has proposed to provide proper rearing accommodation, manpower and mulberry leaf to the rearers.

Production of Raw Silk

In Jammu and Kashmir, due to improper disease management, the production of raw silk is not consistent. During the years 1985-86 to 1995-96, production of raw silk showed a gradual declining trend. In 1985-86, the silk production was 33.70 thousand quintal coming down to 9.50 thousand quintal in 1995-96. From 1996-97 onwards it shows an increasing trend. In the year 1996-97 the production of raw silk was 85.10 thousand quintal, which increased to 92.10 thousand quintal during 1998-99 (Table III.15). In terms of value of raw silk produced, the trends has been declining.

Table III.15
Production of Raw Silk in Jammu and Kashmir

Year	Quantity (000 Kg)	Value (Rs 000 lakh)
1980-81	75.85	234.98
1985-86	33.70	291.28
1990-91	20.74	155.35
1995-96	9.50	140.16
1996-97	85.10	1076.00
1997-98	86.13	1205.00
1998-99	92.10	1208.00
1999-00	80.00	960.00

Source: Statistical Abstract, Government of Jammu and Kashmir, 1999-2000

Employment in the Sericulture sector in Jammu and Kashmir

Table III.16 indicates that number of household dependent on sericulture has shown a gradual decline, from 38.50 thousand in 1980-89 to 25.28 thousand in the year 1999-2000. One of the important reasons for this decline is the low return from cocoon production. Due to climatic conditions mulberry cultivation is a subsidiary occupation. Only 20-30 per cent of the produced cocoons were used within the state.

Table III. 16
Number of people dependent on Sericulture

Year	No. of Sericulture Villages (000 nos.)	No. of Sericulture Households (000 nos.)
1980-81	2.70	38.50
1985-86	2.26	32.50
1990-91	2.59	29.19
1995-96	2.36	23.53
1996-97	2.24	25.52
1997-98	2.30	27.00
1998-99	2.307	22.737
1999-00	2.15	25.28

Source: Statistical Abstract, 1999-2000, Government of J&K.

Due to open competition from other countries like China the same product is available at a cheaper price outside the state. Since 1989, the government has not assured a minimum rate to the cultivator, a factor contributing to the restricted participation of the cultivator in mulberry cultivation. By developing this sector, a lot of employment opportunity can be developed in the rural and semi-urban areas. It has greater implications for absorbing family labour which otherwise would have remained unemployed or underemployed. Ramana (1987) is of the opinion that both mulberry cultivation and silkworm rearing employs mainly household labour; the latter providing domestic occupation for ladies even in the upper agricultural class. So, by effective management and proper attention, sericulture development can lead to a substantial increase both in the net return and employment.

Government Initiatives for Sericulture Development

(a) Silkworm seed production

The Ninth Plan period saw an increase in average cocoon productivity from 24 kg per ounce to 33 kg per ounce of silkworm seed. This alone has contributed to about 1.5 lakh kg. The seed-producing units/stations are proposed to be equipped properly and provided with modern facilities so that the quality of silkworm seed is further improved. In Jammu region the traditional silkworm races have been replaced with improved breeds to the extent of 100 per cent. The department is expecting the release of more productive silkworm from Central Silk Board and Universities. During the Tenth Plan, all those rearers who have proper rearing accommodation and with whom man-power and mulberry leaf availability is not a constraint, will be given these varieties.

(b) Production of Mulberry Plants

The department at present annually produces 15 lakh standard mulberry saplings from its nurseries spread over an area of 4317 hectare. During the Tenth Plan, emphasis will be laid to double the out-turn of plants (from about 6000 plants/hectare to 12000 plants/hectare). For increase in plant productivity, the following steps will be taken:

- i) Provision of proper irrigation facilities wherever lacking or insufficient.
- ii) Proper fencing of nurseries.
- iii) Application of inputs and full adoption of package of practices.
- iv) Optimum man-power utilization and management

The yearly turnout of standard plants shall be raised to 20 lakh. By the end of the Tenth Plan, efforts will be made to produce 5-10 lakh plants in private nurseries (Kissan nurseries) for massive field plantation. Attention shall continue to be paid towards popularization of only improved mulberry varieties recommended by different research institutions and universities. Overall production of nutrition leaves in bulk to meet the demand, will be a major area of attention for the department of sericulture.

A scheme to ensure that every family must grow one mulberry plant should be popularized.

Policy Recommendations

- (a) Silkworm seed is the sheet anchor of the sericulture industry. The local seed produced and distributed to rearers in Kashmir gives lower cocoon yield compared to foreign seed. The import and distribution of foreign seed that was stopped in the year 1984 in J & K and re-started in 1995 needs more attention. Therefore, the first step towards boosting silk production is to evolve superior varieties of disease-resistant silkworm races which should suit local conditions. In this context, the research output of Sher-I-Kashmir University of Agriculture Science and Technology is not very encouraging. It is time to review the activity of the university and the state government should provide infrastructure to private investors in this area.
- (b) Profitability from sericulture depends largely on the production of mulberry leaf at an economic cost. Hence, there is an urgent need to improve mulberry leaf both qualitatively and quantitatively. Due to geographical limitations, multi-crop

cultivation of mulberry is not possible. It is suggested that the state government encourage the farmers to plant mulberry trees on the edges of their rice fields and orchards on a large scale. These plants must also be properly maintained for ensuring higher leaf yield.

- (c) The department of sericulture should produce improved varieties of mulberry plants in their farms and then distribute them to the rearers. The social forestry department should be involved in the plantation programme. The department has a large number of workers on daily wages who can be replaced by motivated farmers for planting better varieties of mulberry plants on a large scale. However, these farmers should be given adequate incentives. As a consequence, there will be higher leaf production and rearers can go in for large cocoon production and receive more benefits.
- (d) Cocoons are the end product of a mulberry farm. The rearers should arrange proper equipment for carrying out silkworm rearing scientifically. Wooden trays must be prepared for self-rearing and traditional floor rearing be discarded. The rearers should pay adequate attention to the artificial adjustment of environmental factors like temperature, humidity, light, air and food to create a conducive environment for silkworm rearing.
- (e) Cocoon markets in Kashmir need to be established in such a way that large-scale buyers from outside the state can participate. Wide publicity should be given about the sale of cocoons in these markets before starting the actual sale. Participation of purchasers from outside the state is necessary because silk reeling units in private sector have not yet started functioning in Kashmir. Besides, arrangements should be made by the department of sericulture for taking the cocoons of rearers to the markets at an appropriate time. This will result in higher price for cocoons for rearers of Kashmir.
- (f) Sericulture is an important agro-based industry with considerable potential for income and employment. Therefore, by integrating mulberry cultivation with farm and horticulture activity, it will provide more income and employment to the rural agricultural labour force.
- (g) Marketing of the cocoon has been a neglected area requiring proper attention. Despite certain measures taken by the state government, more steps should be taken. Cocoon auction markets should be started at Jammu, Mandalli, Udampur, Sunderbani, Rajouri, Poonch, Ramban, Banilal, Doda, Anantnag, Srinagar, Kupwara, Pulwama and Baramulla, where private as well as other states could participate in the bidding, besides government. This will help the people to get cash returns at competitive rates and inculcate quality consciousness among the people.
- (h) The upgradation of seed stations also needs the attention of state. The poor silk content needs to be replaced by productive breeds and the technical staff to be imparted training to prepare good quality and disease-resistant silkworm seeds.

- (i) The number of nurseries needs to be increased. In the Tenth Five-Year Plan, the department has proposed that 60 nurseries should be set up in the state, of which 40 should be set up in Kashmir and 20 in the Jammu division. But this target seems on the lower side and needs to be raised.
- (j) Silkworm seed production during the past twenty years shows consistency. (Table III.12). In 1980-81 the silkworm seed produced was 24.80 thousand and during 1999-2000 it was 27.33 thousand, the growth indicating that this sector needs proper attention for improvement.
- (k) In spite of its congenial climate, the average cocoon production per ounce of silkworm seed is 31 kg in Jammu division at present and 20 kg, in the Kashmir division. This is low compared with the national average of about 38 kg, per ounce. The reasons for low productivity are: inadequate rearing equipment and rearing space with the rearers. As a result, proper growth and development of silkworms does not take place. This problem can be overcome by providing assistance for rearing kits, rearing sheds and demonstration of new technologies.

3. IRRIGATION

INTRODUCTION

Irrigation is one of the indicators for measuring the development of agriculture in any state. It affects agricultural productivity directly. In Jammu and Kashmir the total net area irrigated by different sources (canals, tanks, wells and others) was about 2.61 lakh hectare (41.96 per cent) in the year 1950-51 (Table III.18). Table III.17 shows that there is a constant increase in the net irrigated area during fifty years. The area sown more than once is very low. In 1998-99 the area under this category was 3.48 lakh hectare, which is 47.19 per cent of the total area sown.

Table III.17
District-wise Net Area Irrigated from different sources 1999-2000

District	Net Area Irrigated by (1000 ha.)				Total
	Canals	Tanks	Wells	Other Sources	
Anantnag	44.04	1.30	0.02	4.00	49.36
Pulwama	33.34	0.48	0.04	0.10	33.96
Srinagar	16.50	0.11	0.10	0.50	17.21
Budgam	31.59	0.08	-	0.08	31.75
Baramulla	37.21	0.04	0.70	2.19	40.14
Kupwara	14.48	0.55	-	0.21	15.24
Leh	8.48	-	-	-	8.48
Kargil	9.32	-	-	-	9.32
Jammu	51.72	0.01	0.026	2.10	54.09
Udhampur	4.15	-	-	1.02	5.17
Doda	6.46	-	-	0.78	7.24
Kathua	15.86	-	0.25	5.75	21.86
Rajouri	2.08	-	-	3.39	5.47
Poonch	3.12	-	-	0.68	3.80
J & K	278.35	2.57	1.37	20.80	303.09

Source: Digest of Statistics, 2000-01, Government of Jammu and Kashmir

The state can be divided into 3 hydro-geological units, namely, (i) outer plains of Jammu & Kathua districts, (ii) Kashmir Valley, and (iii) Ladakh region. Brief description of all the units is as under.

The outer plain unit is located at the foothills of Shiwalik Hills. The altitude varies between 260 and 440 metres above mean sea level. Innumerable streams are crossing the area. These streams are locally called *khads* and are laid by boulders and have water only in the rainy season. These plains are further divided into Bhabar and Tarai region. Because of deeper water level conditions, the Bhabar region has ground water only in under-water level condition, whereas in the Tarai region it occurs both in under-water level and confined conditions.

Jammu area receives surface irrigation facilities from the following canal systems:

1. The Ranbir canal system
2. Partap canal system
3. The Kashmir canal system
4. The High canal system
5. The Ravi-Tawi irrigation system.

About 90 per cent of the above-surface irrigation facilities are available to the Tarai area and only 10 per cent to the Bhabar area. There is considerable scope for extending irrigation facilities through tubewells in the Bhabar area, which has not so far been covered by surface irrigation.

The second hydro-geological unit is the Kashmir valley, located at an elevation of 1600-1900 metres above mean sea level with its trend in NW-SE direction. The Pir Panjal range along south and southwest and Great Himalayan range of the north and northeast encircle this valley. It seems that inland independent ground water region of the valley is plain. A Karewas level land is a conspicuous feature of the valley. There are several hard rock ridges, which abut into the valley plain from the flanks and are responsible for marking almost separate hydro-geological sub basins. Low-lying areas, especially those around the surface water bodies are marshy. The Dal, the Wular and the Mansbal lakes occupy about 300 sq.km of the valley portion. The lakes act as balancing reservoir for storing flood water and save downstream areas from watercourse. The valley fills of Jhelum River and the upper Karewas form the main hydro-geological units of the valley. The upper Karewas have distinctive boulder beds from potential aquifers whereas lower Karewas are argillaceous in nature and wells have to be carefully designed for tapping these formations. Sand occurring in lower Karewas takes up a lot of time during development. The high-area level lands, which have not been covered so far by surface irrigation, are irrigated only by tubewells.

The third one is the Ladakh region. The sediments of Leh plain consist of morainic material overlain by varied living and silts of lacustrine. The entire zone receives irrigated water for cultivation from the Indus and its tributaries as well as Nallah, Drass, Suru, Kangi and Wakha. In this region the construction of tubewells is possible on the thickness of rocks.

Area Irrigated from different sources

Out of 2,22,236 sq.km of total area of the state about 3000 sq.km area of outer plain of Jammu & Kathua districts and 5,000 sq.km area of Kashmir Valley covering parts of districts of Srinagar, Pulwama, Badgam, Anantnag, Baramulla and Kupwara has been considered for the purpose of the ground water resource estimation by the Central Ground Water Board (CGWB). The ground water estimates are available at the district level, whereas the same has not been segregated at the block level. It has been established by the CGWB that the entire out plain area of Jammu region and the valley portion of Kashmir region fall in the white category. The present stage of ground water development is 1.33 per cent.

Canal irrigation constitutes the largest single source of irrigation, accounting for 93.75 per cent. Tanks, wells and other miscellaneous sources contribute the rest (Table III.18). Some estimates indicate that the gross irrigated area is 4.27 lakh hectare of the gross cultivated area of 11.02 lakh hectare. As such the percentage of gross irrigated area was about 40.94 per cent for the state as a whole. However, the situation in various regions is different from the state average. In the Jammu region the gross irrigated area is 75.14 thousand hectare, mostly irrigated by canals like Ranbir canals and Ravi lift irrigation system covering about 21.06 per cent area only. This assumes significance in view of the fact that Jammu region has the largest gross cropped area of the state.

Table III.18
Trend in Net Area Irrigated from different sources

Years	Net Area Irrigated (1000 ha)				Total
	Canals	Tanks	Wells	Other Sources	
1950-51	244.00	3.00	3.00	11.00	261.00
1960-61	256.00	-	5.00	13.00	274.00
1968-69	252.00	-	1.00	11.00	264.00
1980-81	285.00	2.00	4.00	13.00	304.00
1990-91	278.58	1.98	1.33	16.20	298.09
1995-96	284.86	2.57	1.42	17.73	306.58
1996-97	284.25	2.57	1.42	25.02	313.26
1997-98	284.31	2.52	1.30	20.64	308.77
1998-99	283.81	2.60	1.32	21.42	309.15
1999-00	278.35	2.57	1.37	20.80	303.09

Source: Digest of Statistics, 2000-01, Government of Jammu and Kashmir.

In Kashmir, gravity canals mostly provide the region with irrigation. Canals like Martnod, Dedi, Nandi, Maw, Zainapora, Wopzan and Zoorra and lift stations like Lethpora, Padgampora, Marwal, Quill and Rajpora are the main sources of irrigation for southwest and southeast of Kashmir. Canals like Lar, Power, Ded, Zaingeer, Lalquell, Babul and Aehji and lift stations like Sumbal, Rajiabad cater to the

irrigation needs of northeast and northwest Kashmir. Gross cropped area is 255.14 thousand hectare constituting 63.11 per cent. In Anantnag district of Kashmir region, most of the land has irrigation facilities followed by Baramulla and Pulwama.

In Leh and Kargil districts, the entire cropped area is irrigated from the Indus and its tributaries and Nallah, Drass, Suru, Kangi and Wakha and wherever possible, also through gravitational canals, as field crop production is not possible without assured irrigation in the limited cropping season of this arid region. The total area under irrigation in this region is about 18.76 thousand hectare, constituting 82.60 per cent of the total cultivable area. Recently, Igo-phey canal has been commissioned for irrigation in Leh and Kurbathang canal in Kargil. A few more canals are under construction in the region.

Irrigated Area under different Crops

Table III.19 shows that rice and maize cultivation get maximum share of available water sources. The Kashmir region gets maximum irrigation facility for rice cultivation despite the fact that the rice produced in this region is not sufficient. Wheat, after rice, is the second important crop which receives a big share of irrigation facility in the Jammu region, but in the Kashmir region it has been neglected, not because there is no water for wheat cultivation in Srinagar division, but due to different food habits. The Kashmir region is giving more attention to rice cultivation and the Jammu division to wheat.

Table-III.19
District-wise Irrigated area under different crops 1999-2000 (1000 ha)

District	Rice	Maize	Wheat	Barley	Other cereals pulses & millets	Other food crops	Other Food Non crops	Total area under crops irrigated
Ananatnag	0.40	0.03	Neg	-	Neg	Neg	Neg	0.43
Pulwama	0.25	0.04	Neg	-	Neg	-	Neg	0.29
Srinagar	0.12	0.02	Neg	-	Neg	-	Neg	0.14
Budgam	0.27	0.02	Neg	-	Neg	-	Neg	0.29
Baramulla	0.28	0.10	Neg	-	Neg	-	Neg	0.38
Kupwara	0.10	0.05	-	-	Neg	-	-	0.15
Leh	-	-	0.03	Neg	Neg	Neg	-	0.03
Kargil	-	-	0.02	Neg	Neg	-	-	0.02
Jammu	0.44	0.44	0.42	Neg	-	-	-	0.86
Udhampur	0.05	0.05	Neg	-	-	-	-	0.05
Doda	0.04	0.04	Neg	Neg	Neg	-	-	0.06
Kathua	0.23	0.23	0.12	Neg	-	-	-	0.35
Rajouri	0.05	0.05	0.02	Neg	-	-	-	0.07
Poonch	0.04	0.04	0.01	Neg	Neg	-	-	0.05
Total	2.27	0.28	0.62	Neg	Neg	Neg	Neg	3.17

Neg: Negligible

Source: Digest of Statistics, 2000-01, Government of Jammu and Kashmir.

Potential Areas

The state offers good scope for exploitation of ground water. The ground water development is 1.33 per cent of total available water resources. The MI structure like STWs, dug wells, PI sets or river lets are feasible. There is a potential for the installation of 7,000 STWs in the state.

Drawbacks

The potential for installation of STWs and other MI structures in the state has not been utilized to its fullest extent. Since the Minimum Needs Programme (MNP) has been stopped by the state government, the farmers are not interested to go in for STWs/other MI structures. The block-level ground water elements are not available in the state. Besides, there is no agency which can guide the farmers in the promotion of MI works. The ground water deficit area like Kandi has vast scope for drip and sprinkler irrigation. These systems, once introduced in these areas can increase the production and productivity.

Problems/Constraints in the Development of Ground Water

The state has a lot of ground water potential in selected areas but the same has not been exploited due to the following reasons:

1. Lack of information on the availability of the resource at block level on area-specific basis.
2. Lack of coordination between the different state agency involved in ground water activities.
3. Lack of technical staff in banks for formulation of ground water as well as surface water-based schemes.
4. Non-availability of block-wise ground water evaluation data.
5. Only subsidy-oriented programmes are preferred by the borrowers.
6. Fragmented land holdings and lack of non-farm development
7. Dominance of traditional crops in the existing cropping pattern.

Policy Recommendations

In order to exploit ground water potential in the state, the following measures are suggested:

- (a) The state government should work out ground water potential at block-level as per National Bank requirements.

- (b) Delineate area suitable for the development of ground water.
- (c) Recommend area-specific suitable design of MI structures and Unit Cost.
- (d) Provide technical support to the banks in the formulation of MI Schemes and innovative schemes like drip and sprinkler irrigation.

4. INDUSTRY

Industries play a vital role in the development of an economy. Unfortunately, J&K has not been able to attract investments in industries and remained as an industrially backward state. The state does not have a strong industrial base, because geographical location of the state is such that the setting up of large industries with a large capital base is not feasible, besides adverse environmental consequences. Nevertheless, many small and medium-scale industries have come up basically in the traditional sectors along with some new areas like food processing, agro-based units and metallic and non metallic products.

Table: III.20
Number of registered industrial units and employment

Year	Number	Employment
1995	35641	154621
1996	36829	159509
1997	38135	164989
1998	39542	171660
1999	40729	177603
2000	42042	183297
2001	42808	187399

Source: Industrial Statistics, J&K, 2000-2001.

It can be seen from Table III.20 that with government's support in the form of loans and incentives to set up industrial units, their number has increased from 35641 in 1995 to 42808 in March 2001. At the same time, employment has increased from 154621 persons in March 1995 to 187399 in March 2001 (the data pertains to units that have got themselves formally registered).

Annexe-4 gives product-wise details of the industrial units along with employment and output. The registered number of hosiery and basic metal products manufacturing units has shown an increase year after year from 1995-96 to 1999-00. However, the trend changed during 2000-01 when only 91 units in case of hosiery and 69 units of basic metal products were registered. Units producing wood products have, however, shown a decreasing trend with the registration of 105 units in 1999-2000 and only 26 units in 2000-01.

The year 2000-01 experienced a decline in the number of industrial units set up in the state, with only 766 units getting registered in 2000-01 as compared to 1313 units in 1999-00. Employment generation also declined during the same period. In 1999-2000 5694 persons were additionally employed, while only 4102 persons were

absorbed in 2000-01. Annual production showed a decline from Rs. 30805.04 lakh in 1995-96 to Rs. 24293.01 lakh in 1999-00 and further to Rs. 21787.34 lakh in 2000-01. It is also important to note that the annual production declined to Rs. 13213.87 lakh, in 1997-98 in spite of the increase in the number of units registered during that year. The year 2000-01 witnessed an overall decline in the number of units set up, employment generated and the production.

Table III.21
Loans advanced by banks and other financial institutions

(Rs. in Lakh)

	Cases Recommended		Cases Sanctioned		Cases Disbursed	
	No.	Amount	No.	Amount	No.	Amount
1995-96	1785	5460.37	622	1523.60	546	1352.35
1996-97	1717	6275.74	285	861.86	226	745.24
1997-98	2040	6960.06	445	1859.88	239	1233.38
1998-99	1790	8252.87	419	1748.80	295	1073.32
1999-00	1334	7257.06	374	1507.00	284	755.27
2000-01	1469	8061.23	418	2095.34	332	976.61

Source: Industrial Statistics, J&K, 2000-2001.

Table: III.22
Loans disbursed by banks and other financial institutions

(Rs. in lakh)

Year	State Financial Corporation	Jammu & Kashmir Bank	Other banks and financial institutions	Total loans advanced by banks & other financial institutions
1995-96	0.00	1177.70	174.65	1352.35
1996-97	0.00	508.01	237.23	745.24
1997-98	18.00	960.12	255.26	1233.38
1998-99	130.38	282.31	660.63	1073.32
1999-2000	162.43	462.22	130.62	755.27
2000-01	418.81	426.20	131.60	976.61

Source: Industrial Statistics, J&K, 2000-2001.

Table III.21 shows the financial support to industries set up in the state. Against 1785 cases recommended for loans in 1995-96, only 622 cases were sanctioned and only 546 units were granted to the tune of Rs. 1352.35 lakh. This number came down to 1469 cases recommended for loan in 2000-01, of which 418 units were sanctioned loans and only 332 were only granted amounting to Rs. 976.61 lakh. During 1995-96 and 1996-97, dependence on J & K Bank for financial support was immense, while no loan was sanctioned or provided by the State's premier

development financing institution, viz., State Financial Corporation (SFC) (Table III.22). However, the SFC has emerged to play a greater role in providing financial support during 1999-2000 and 2000-01 as an amount of Rs. 418.81 lakh was disbursed as loans in 2000-01.

It is important to note that the sanctions and disbursements by the SFC reached an all-time high in 1991-92. Lack of proper appraisal of the viability of the projects and the credit worthiness of the applicants resulted in careless lending (Committee on Economic Reforms, August 1998). Due to such practices and difficulty in recovery along with law-and-order problems in the state, SFC defaulted in its commitments to SIDBI and Industrial Development Bank of India (IDBI) and subsequently IDBI stopped matching contributions towards subscription of share capital. That is why SIDBI and IDBI stopped refinance from 1992-93 till 1995-96. In 1997-98, however, SFC sanctioned a loan of Rs. 18.00 lakh to one industrial unit only and gradually increased the cases disbursed to 10 in 1998-99 with a total of Rs. 130.38 lakh as loan amount.

Role of Promotional Agencies

Jammu and Kashmir State Industrial Development Corporation Limited (SIDCO)

Jammu and Kashmir State Industrial Development Corporation Limited (SIDCO) is the nodal agency for promotion and development of medium and large-scale industries in the state. The corporation has been entrusted with various assignments for the development of industries in the state. It is responsible for the development of infrastructural facilities of small, medium and large scale industrial projects, identification of technically feasible and financially viable projects for the state, conducting seminars/ workshops/industrial exhibitions within and outside the state for the promotion of industries, and assisting quick clearance of the envisaged projects by various regulatory authorities. SIDCO has also been acting as a nodal agency for the Ministry of Food Processing Industries, Government of India and operating as the virtual office of Agricultural and Processed Food Products Export Development Authority (APEDA), Ministry of Commerce, in the state. It has also been assigned the responsibility of providing grant of financial assistance to industrial projects having investment up to Rs. 450 lakh and participation in the equity of selected joint or assisted projects.

SIDCO has developed a number of industrial estates in Jammu and Kashmir. The corporation has been able to generate employment opportunity for 8,000 persons and

expects to create an additional opportunity for 10,000 persons, with an additional investment of Rs. 2000 crore in the pipeline.

J&K Small Scale Industries Development Corporation Limited (SICOP)

SICOP was established in 1975 as a wholly owned company of the Government of J&K. It has been entrusted with a variety of roles for the development of small-scale industries (SSI) in the state. The corporation, along with SIDCO and Directorate of Industries and Commerce (DIC), has been responsible for developing industrial infrastructure in the state. SICOP is managing six industrial estates located at Gangyal, Birpur and Kathua in Jammu Division and Zainakote, Zakura and the Sports Goods Complex, Bejbehara in Kashmir Division. In addition, SICOP is also managing an Industrial Infrastructure Development Centre (IIDC) at Battal Ballian in Udhampur (Jammu Division). Around 535 units have come up in these estates (A Handbook of Industrial Statistics, J&K, 2000-01). The corporation has established a network of raw-material depots in all districts of the state for the procurement and distribution of raw materials to small industrial units. It also functions as the consignment agent of Indian Petrochemicals Ltd. (IPCL) at Jammu, Srinagar and Leh and handling agent of Steel Authority of India Ltd. (SAIL) at Pampore (Kashmir) and the consignment as well as its handling agents at Leh. Besides, it also provides marketing support by selling the end products of the industries to the government. The state government, to this effect, had reserved fifteen items for exclusive purchase by the government departments from SSI through SICOP in 1997. A total of 944 units are registered with the corporation under this activity. It also provides testing and quality inspection facilities for SSI units through testing centres.

Small Industries Service Institute (SISI)

Small Industries Service Institute (SISI) was set up to provide technical support services to small scale industries in the country. Along with various developmental efforts, SISI has been conducting entrepreneurial development programmes as well as promotional programmes to promote SSIs in the country. SISI and its branches have common facility workshops in various trades attached to it.

SISI, Jammu has been providing techno-managerial, economic and marketing services to prospective and existing entrepreneurs in the state. The entrepreneurs are guided in product identification and diversification, selection of machinery and their procurement. It has also undertaken the preparation of project reports like: Industrial Profile of J&K state, State Profile on Agro-based industries, Technical Reports on the prospect of glass and ceramic industry in J&K, etc.

Besides, SISI provides consultancy services to prospective entrepreneurs and conducts training courses/seminars. During 2000-01, technical, managerial as well as marketing assistance was provided to 1866 prospective entrepreneurs. The institute conducted four entrepreneurial development programmes where 122 entrepreneurs including 20 women were trained.

Directorate of Industries and Commerce (DIC)

The Directorate of Industries and Commerce performs various functions to promote industrialization in the state. The directorate is the implementing agency for various policies and programmes meant for the development of industries. It provides incentives (under the package of incentives announced by the government both state and central) and marketing assistance to existing as well as new industrial units in the state, organises and participates in exhibition and fairs, seminars, workshops and awareness campaigns to promote industrial development in the state. DIC facilitates interface between industrial associations and agencies engaged in industrial development and financial institutions and banks. The directorate has also developed industrial estates with facilities to set up industrial units. Along with promotional functions, DIC maintains statistical information regarding industrial development in the state.

There were 32 industrial estates with 692 units in the state under Directorate of Industries and Commerce's (DIC) control in March 2001 (Table III.23). Under the control of SICOP there were 7 estates with 535 industrial units and 11 estates with 320 units under SIDCO's control. However, the number of functional units is much less than the total number of units. A total of only 581 units were functional out of 1547 units set up in the estates.

Table III.23
Industrial Estates in the State

(numbers)

Industrial Estates	No. of Estates	No. of Units	
		Functional	Non Functional
Estates under D.I.C	32	425	267
Estates under SIDCO	11	217	103
Estates under SICOP	7	324	211

Source: Industrial Statistics, J&K, 2000-2001.

With the objective of promoting small-scale industries, industrial estates have been set up in the state. These estates were meant to provide conditions favourable to enhance the efficiency of the units, economical use of the resources available, and

create backward and forward linkages. Industrial estates, however, have failed to fulfill the objective of promotion of small-scale industries. One such study shows that units outside the estates have performed better than the units inside.* Further, the industrial estates have been developed without appropriate planning and economic study. There is also a need to improve the infrastructural facilities provided to these estates in the form of a road network, power supply, etc.

To provide gainful employment to rural artisans of the state, the J&K Khadi and Village Industries Board was established in 1962. The Board provides financial and technical assistance for setting up of small-scale industries under various schemes to achieve this objective.

Financial assistance is provided as per the approved pattern of the All-India Khadi and Village Industries Commission to individual units as well as to cooperative societies. Up to now the Board has financed 1214 cooperative societies and 28364 individual units, generating employment for 72309 people. In 1997-98 'Special Employment Programme' was taken up by the Board in the districts of Jammu and Anantnag to provide job opportunities to 10,000 people in each district. Under this scheme, 65 per cent of the cost of setting up an industrial unit comes as bank finance, 25 percent as margin money released by the Board and 10 per cent as beneficiary contribution. This scheme has been extended to all districts of the state under the name of 'Rural Employment Generation Programme' in the year 1998-99. By the end of March 2001, 1215 units had received financial assistance from the Board with the generation of employment for 5,000 people (Draft 10th Plan Document, J&K, 2002).

PUBLIC SECTOR UNDERTAKINGS

J&K Minerals Ltd. was the first state-owned enterprise set up in the year 1960 with the objective of exploiting mineral resources and establishing mineral-based industries in the state. Next, the J&K Industries Limited (JKI) was incorporated in 1963. Though Public Sector Undertakings (PSUs) were set up in the state, keeping in view the objective of industrial development for which private investment was not available; they have of late, lost their importance in terms of contribution to the State Domestic Product (SDP). On the one hand these units have to compete with the private sector in procuring raw material and on the other, over-staffing, political interference in the day-to-day functioning of the corporation, mis-management, poor

* Mushtaq 2002, Efficacy of Industrial Estates in J & K, *The Business Review, The Journal of Kashmir University*, Vol.8, No. 1 & 2, 2002).

marketing strategy, law-and-order problems in the state have resulted in the poor economic performance of the PSUs. It is further claimed that all the PSUs in the state are viable, though running into loss. An example is the watch-case manufacturing company set up by SIDCO, which, virtually producing nothing, only pays salaries to its employees.

There are 20 PSUs in the state, namely:

1. J&K Handicrafts (S&E) Corporation Ltd.
2. J&K Minerals Ltd.
3. J&K Handloom, Handicrafts, Raw Material Supplies Organisation
4. J&K Himalayan Wool Combers Ltd.
5. J&K State Industrial Development Corporation Ltd.
6. J&K Cements Ltd.
7. J&K Handloom Development Corporation Ltd.
8. J&K Small Scale Industries Development Corporation Ltd.
9. J&K Industries Ltd.
10. J&K Women Development Corporation Ltd.
11. J&K Scheduled Caste, Scheduled Tribe and Other Backward Classes Development Corporation.
12. J&K Tourism Development Corporation Ltd.
13. J&K Cable Car Corporation Ltd.
14. J&K Forest Corporation Ltd.
15. J&K State Financial Corporation Ltd.
16. J&K Horticulture Production, Marketing and Processing Corporation Ltd.
17. J&K State Road Transport Corporation Ltd.
18. J&K Project Construction Corporation Ltd.
19. J&K Agro Industries Development Corporation Ltd.
20. J&K Power Development Corporation Ltd.

Almost all the PSUs in the state are running into loss with the exception of J&K Project Construction Corporation Ltd., J&K Tourism Development Corporation, J&K Cable Car Corporation Ltd., J&K Forest Corporation Ltd. and J&K Cements Ltd, which are earning revenues only to meet their day-to-day expenses.* The state government has recently shut two corporations, namely, J&K Himalayan Wool Combers Ltd. and its subsidiary J&K Handloom, Handicrafts, Raw Material Supplies

* *Source:*Department of Public Sector Undertakings, Govt. of J&K, Jammu.

Organization, after declaring them sick. The employees have been paid money the under Voluntary Retirement Scheme (VRS) designed especially for these two companies and sanctioned by the state government.

Seven PSUs are being provided budgetary support by the state government to enable them to meet their wage bills as well as carry out day-to-day activities. The state government has signed a MoU with the Government of India to gradually phase out the budgetary support. Since 1998-99 there has been an annual reduction of 10 per cent in the support provided to these corporations.

The state government had formed an apex committee under the chairmanship of the Chief Secretary to decide on the strategy to revive/ restructure the loss-making corporations. The issue of restructuring was also discussed with the Ministry of Finance, Government of India, where it was decided that financial institutions like IDBI would provide funds for VRS required to downsize the concerned corporations along with some capital investment to rejuvenate them. However, the financial institutions did not come forward to fund VRS, though they were ready to invest in the restructured company. A restructuring fund has been created in the state under the name of Renewal and Restructuring Reserve Fund to finance the Golden Handshake Scheme (or the VRS) for the purpose of voluntary retirement of the employees working in PSUs which are not financially viable. The fund has a corpus of Rs. 10 crore contributed from the Plan funds of the state along with matching contributions from the non-Plan. Sales proceeds from disposal of fixed as well as current assets of the PSUs also contribute to the fund.

The state government has also explored the possibility of privatization but the experience with such sales has not been encouraging since the private owners could not run the units had to close down the business. Second, only a few corporations in the state are involved in manufacturing, most of them being service providers like SIDCO, SICOP, SFC etc., providing infrastructure and raw material to the industrial units in the state. Privatisation of these corporations would not be in the best interest of the industries in general and development of small-scale industries in particular.

Disinvestment is another option being explored by government. The state has initiated the process by disinvesting in a few units owned by J&K Industries Ltd.

The state, however, does not have any active policy towards restructuring/ revival of the loss-making PSUs. The J&K Government had appointed a committee on Economic Reforms which submitted its recommendations in 1998. Accordingly, various departments were asked to come up with the proposal to restructure/ revive

the PSUs under their respective departments. Though some of the PSUs have hired consultants and prepared such proposals, the concerned finance department has not received any such proposal.

INDUSTRIAL SICKNESS

Although the number of SSIs in the state has gone up, there are cases of sickness of units, some of them being nonfunctional and missing. Industrial Census of SSI in J&K (1998) showed that out of 36,510 units surveyed, 15,145 units (41.48 per cent) were functional 4,840 units (13.26 per cent) were closed whereas 306 units (0.84 per cent) were sick and 16,219 units or 44.42 per cent were untraceable (Table III.24). Most of these untraceable units are those that are registered to take advantage of the incentives given to the SSI. Some others left the state due to disturbances.

Table: III.24
**Classification of units as functional/sick/closed/
untraceable according to Census 1998**

Type of Industrial Units	Total	Percentage
Units Surveyed	36510	--
Functional Units	15145	41.48
Sick Units	306	0.84
Closed Units	4840	13.26
Untraceable Units	16219	44.42

Source: Industrial Statistics, J&K, 2000-2001.

The Entrepreneur Development Institute (EDI), Ahmedabad, conducted a survey in 1996-97 to determine the reasons for the sickness of the industrial units in J&K. The results showed that 32.71 per cent of the units became sick due to financial crunch, 30.55 per cent due to law-and-order and other problems, 19.40 per cent due to marketing problems, 9.24 per cent due to raw material unavailability and 8.10 per cent due to migration.

POTENTIAL FOR DEVELOPMENT OF MINERAL-BASED INDUSTRIES

Coal found in the state is of the semi-anthracite quality and about 10 per cent of the production is in the form of steam coal. Generally the coal is of high heat value with ash content of 20-30 per cent and calorific value of 6,000 K.cal/kg to 7,800 K.cal/kg. At the same time, extraction is uneconomical due to thin seams and high cost of mining. Coal is used in the state in brick kilns, cement plants, manufacture of battery covers and other industrial units. Presently coal is extracted from Metka, Moghla and Baryal/Kotla coal mines falling in Rajouri and Udhampur districts.

Gypsum deposits occur in Assar, Kanga, Parlanka in Jammu region and in Buniyar in Kashmir valley. J&K Minerals Ltd. is presently extracting gypsum from Assar. Gypsum is mined on a limited scale by manual operation after blasting gypsum rocks. It extracts about 25,000 metric tonne of gypsum annually. The gypsum so mined is of 97 per cent purity and is in the form of lumps. The consumers of gypsum in the state are mainly the small-scale industries and cement plants, manufacturers of plaster of paris including Wuyan Cement Factory and J&K Cements Ltd. Attempts are being made to increase the production of gypsum as well as to explore markets outside the state. The draft 10th Plan also proposes to explore gypsum from the mines located in Parlanka, in district Doda. There are estimates that huge reserves are available in that area.

Sapphire occurs in Paddar area in Doda district. The sapphire extracted is deep blue in colour and known for its purity and transparency and considered to be of better quality than that from Sri Lanka. However, the techniques used to extract it are unscientific and primitive. Though there is potential for developing this mineral, international expertise should be used to extract it and investments should come in strictly from the private sector.

Limestone is used in the state mostly in the cement industry. However, the state has to import almost 30 per cent of its total cement requirement. The chemical industry is another large user of limestone, but due to environmental concerns, not many large chemical industries have been set up in the state.

Bauxite found in the Salal area has a high content of silica. The technology developed so far uses bauxite with a low silica content. So this variety cannot be used to manufacture aluminium sheets. However, if new technology is developed, the bauxite found in J&K can be put to good use.

Marble reserves are located in Kupwara district but because they fall in the border area, mining has been stopped for the past few years.

Challenges: Most of the mineral deposits are located in border areas and in difficult terrain. This increases their cost of transportation to the site of production. Second, the only means of transportation is by road since railways are not well developed in the state. Therefore the state cannot compete with other states like Rajasthan which with a well laid-out network of railways covering almost all the mining sites.

The fragile ecology of the state also inhibits setting up of large industries based on minerals. The social costs involved, in the form of environmental degradation,

pollution, soil erosion, would be much higher than the benefits which would accrue to the people.

INCENTIVES FOR INDUSTRIAL DEVELOPMENT

The state government announced the New Industrial Policy in 1998, operative till 2003, with a package of incentives to attract investments in J & K.

According to the New Industrial Policy 1998, the state government proposed to follow an open door policy for investors from within the state, other parts of the country as well as from abroad. To achieve rapid industrialisation in the state, the government adopted the strategy of developing industrial infrastructure. The policy includes allotment of land on lease for a period of 90 years in the industrial estates. Capital Investment subsidy (CIS) of 30 per cent subject to a maximum limit of Rs. 30 lakh to be given on capital investments. In priority areas, the upper limit has been increased to Rs. 45 lakh. Hundred percent subsidy on project feasibility report as well as on testing equipment for maintaining quality standards and on purchase of captive DG sets up to one MW is also provided. Apex Projects Clearance Committee (APCC), a high power clearance committee has been set up for expeditious clearance of the projects under the chairmanship of Chief Secretary of the state. The committee serves as a single-window clearance system for the projects which can be accommodated within the sanctioned policy and prestigious units. The government has identified certain thrust areas for giving priority in the matter of industrial growth. The projects in these areas would receive priority in land allotment, sanction of power and other clearances from the high powered committee as well as other incentives. The thrust areas are: electronics including computronics and software, food processing including agro-based industries, floriculture, handicrafts, leather processing and leather goods, sports goods, forest-based industries, processing of aromatic plants and herbs, pharmaceuticals based on herbs, bulk drugs, silk reeling, weaving, processing, printing and made-ups, items of textile goods including spinning, weaving, processing, printing hosiery and made-ups, cutting and polishing of stones, gems and jewellery, precision engineering and other identified areas.

The central government has also announced a package of incentives for setting up industries in the state. The package includes:

- Income tax holiday for a period of 5 years.
- 90 per cent transport subsidy provided from the railhead to factory site on raw material and finished goods.

- Special incentive for food-processing industries.
- Central excise exemption scheme wherein the goods specified in the First Schedule and the Second Schedule to the Central Excise Tariff Act, 1985(1of 1986) from so much of the duty of excise or additional duty as the case may be, leviable thereon under any of the said Acts.
- Central capital investment subsidy scheme where subsidy of 15 per cent of the investment in plant and machinery subject to a maximum ceiling of Rs.30 lakh is admissible to the units to be set up in the identified locations.
- Central interest subsidy scheme where the subsidy of 3 per cent is payable to the industrial units on the working capital loans for a period of ten years from the date of commencement of production.
- Comprehensive insurance scheme where insurance premium paid by the eligible units is reimbursable through a revolving fund maintained by the nodal insurance company, National Insurance Company.
- The centre would also bear the entire expenditure on growth centre subject to a ceiling of Rs. 15 crore.
- In case of Integrated Industrial Development Centres, the funding pattern would change from 2:2 between Government of India and SIDBI to 4:1and Government of India would fund the grants.
- A one-time grant of Rs.50 crore would also be provided to the J&K Development Finance Corporation by the central government to fund techno-economic studies for the industries and infrastructure best suited to this region.
- The package would be extended to all new units except branded beverages, alcoholic drinks, tobacco and tobacco-based products.

Along with various incentives offered under the New Industrial Policy, the government has taken other initiatives to boost investments in the state as follows:

1. A Software Technology Park (STP) was set up in Rangreth, Srinagar in January 2001 with central assistance. The STP has facilities of high-speed data communication, central computing/conferencing, linkage to the units located outside the complex to integrate them with the international gateway through Local Area Network (LAN), etc.
2. To promote food processing industries, a food park is being set up at Khanmoh, Srinagar. The project has been taken up with a central assistance of Rs. 400 lakh.

3. The state government, with assistance from the central government, is in the process of setting up a Common Facility Centre (CFC) at Bagh-Ali-Mardhan Khan, Srinagar. In CFC, facilities for carpet washing and drying, walnut wood seasoning and paper pulp-making plant would be provided to the craftsmen/artisans. The Government of India has also approved the setting up of a common facilities centre for processing wool and woollen products. CFC for handlooms would also be setup with the contributions by state as well as centre.
4. The development of a growth centre near Samba and Lassipora, the textile city in Kathua, the Export Promotion Industrial Park at Kartholi and one near Srinagar, the Industrial Infrastructure Development Centre at Batal Balian near Udhampur and Srinagar, are some of the other initiatives taken by the state for industrial promotion.
5. A scheme was introduced in 1998 under the New Industrial Policy for the revival of sick units. However, the unit had to be financially viable to avail of the assistance provided under this scheme. This required hiring of consultants to prepare viability report for the units. Potentially viable units would get margin money and subsidy on interest to the financial institutions like SIDBI from whom the unit holders would be asked to avail fresh working capital loans on soft terms.

However, the problem with this scheme was that almost all the sick units managed to get viability reports, thus making the revival of potentially viable but sick unit difficult. A new scheme for revival has been introduced now. The condition of viability has been scrapped. The unit has to negotiate with the financial unit on its own, settling the terms of assistance. The state government's role would be limited to providing interest subsidy to the borrowers, with the central government/state government bearing the total interest less by 1 per cent.

RECOMMENDATIONS

1. Industrial estates should be developed keeping in mind economic considerations like raw material availability, geographical location, proximity to the market, etc.
2. Common Facilities Centres should be provided to the industrial units set up in the estates. The government should also encourage setting up of homogeneous units in an estate so that they can use the common facilities provided there.

3. There should be some monitoring mechanism in place to check the performance of the small-scale units, which could detect early signs of a unit becoming sick.
4. To check untraceable units, incentives to set up units should not be given indiscriminately.
5. More educational and training centres should be set up to provide advanced training to craftsmen.
6. The small-scale unit holders need to be provided marketing assistance. The private sector should be encouraged to take a lead in this area.
7. To encourage investments in the state, government should play a lead role to build up the confidence of the private investors.
8. Better infrastructure with uninterrupted power supply, connectivity, etc., should be provided to the units to improve their efficiency.
9. Separate strategies should be adopted to promote industries in Jammu and Kashmir keeping in mind the climate, accessibility, raw material availability, human resources and consumption pattern.
10. High-value, low-volume items, service sector and information-enabled services should be promoted in the Kashmir valley. In Jammu, the advantage of rail connections should be explored by introducing industries which handle bulk materials.
11. In view of the mounting financial losses of the PSUs, the state government's scarce funds and reluctance of the financial institutions to provide the funds required to restructure the corporations, a restructuring fund could be created by the central government with specific targets set for each state to downsize/restructure the financially non-viable corporation in a phased manner.
12. There is a need to look at the practical problems involved in setting up industries based on minerals. The state is poor in infrastructure like power, essential for setting up heavy industries. The state government cannot be entirely relied upon to

invest in these industries. There is also a need to carry out a social and economic cost-benefit analysis before investing in such ventures in view of the limited government financial resources. The state's special concessions to entrepreneurs for setting up mineral based industries should be time bound and based on actual investments brought in and employment generated.

5. LABOUR AND EMPLOYMENT

J&K has been facing the problem of unemployment for long. The population of the state increased from 59.87 lakh in 1981 to 100.70 lakh in 2001. The number of workers also registered an increase of 39 per cent during the same period. According to 2001 census, the number of total workers stands at 36.89 lakh of which the main workers constitute 25.36 lakh and the number of marginal workers constitutes 11.52 lakh. The share of main and marginal workers in the total work force has remained nearly constant during the last two census years. Further classification of workers during 2001, shows that 43.36 per cent of the total workers are cultivators, 6.74 per cent are agricultural labourers and the remaining 49.9 per cent are workers engaged in other activities including household industries. Female workers contributed 28.4 per cent of the total work force, the share of female marginal workers being 66.84 per cent of the total female workers (Census, Government of India, 1981& 2001).

Work opportunities, however, have not kept pace with the increasing population. The problem of unemployment gains more importance because of increasing unemployment of the educated in the state. Almost 70 per cent of the population is directly or indirectly dependent on agriculture and allied activities which continue to be a subsistence sector. In the absence of industrial growth and negligible scope for absorption in the private sector, many have been rendered unemployed and have joined the ranks of job seekers.

The main source of data on job seekers is the live registers of employment exchanges of the state. Since registration is not compulsory, all unemployed do not get themselves registered. Second, some of those registered may not actually be unemployed but may be in search of better employment opportunities.

Table: III.25
Registrations and Placements made by Employment Exchanges

(in '000s)

Year	No. of employment Exchanges	Registrations made	Placements made	Strength on the live registers as on last day of the year
1980	10	28.66	2.52	51.28
1990	17	56.58	0.61	112.43
1991	17	56.80	0.75	146.25
1995	17	31.98	0.21	146.52
1998	17	23.41	0.15	164.06
1999	17	29.28	0.03	162.53
2000	17	34.80	0.05	167.23

Source: Digest of Statistics, 2000-2001, J&K.

The total number of job-seekers or unemployed, as per lives registers of the employment exchange during 1991, stood at 146.25 thousand, increasing to 167.23 thousand in 2000. During 1991 56.58 thousand registrations were made while employment could only be provided to 0.75 thousand unemployed, i.e., 1.2 per cent of those registered. Table III.25 shows that registrations made each year have been falling since 1991, decreasing to 34.8 thousand in 2000. Against this, jobs could be provided only to 50 people, i.e., 0.14 per cent of those registered.

The total job seekers, however, form only 1.66 per cent of the total population of the state. Since registration is not compulsory in the state, the actual percentage of the unemployed might be much higher than this number. Moreover, low percentage of placements might also have discouraged the unemployed youth from registering themselves.

Table III.26
Qualification-wise number of persons on live register

Category	1990	Percentage	1999	Percentage	2000	Percentage
Illiterates	29211	25.98	23385	14.39	21301	12.74
Below Matric	22106	19.66	29454	18.12	31128	18.61
Matric & Above Schooling	29997	26.68	56890	35	61507	36.78
Graduates	10156	9.03	19200	11.81	21823	13.05
Post Graduates	1979	1.76	7474	4.6	8275	4.95
Medicine Degree	-	-	-	-	-	-
Engineering	529	0.47	4605	2.83	4772	2.85
Diploma Engineering	770	0.68	6422	3.95	4639	2.77
I.T.I trained Skilled (Other than I.T.I)	3042	2.70	7346	4.52	4619	2.76
	14636	13.02	7752	4.77	9174	5.48
Total	112426	100	162528	100	167238	100

Source: Digest of Statistics 2000-2001, J&K.

Unemployment in 2000 increased by 48.75 per cent from the level in 1990. Table III.26 shows that while the absolute number of unemployed has increased, it is mostly in the number of educated youth. The number of illiterates seeking employment has actually declined from 29211 in 1990 to 21301 in 2000. However, matriculates and those with secondary and higher secondary schooling, seeking jobs have increased from 29997 in 1990 to 61507 in 2000. Likewise, those with

graduation and above qualifications searching employment have also registered an increase as this category increased from 27.66 per cent of the total unemployed in 1990, to 31.86 per cent in 2000.

It is important to note that the percentage of youth passing out of colleges without technical and vocational education has increased. This group would ultimately look to government for providing employment in the absence of jobs in the private sector in the state.

The increase in the number of students passing out of schools and colleges each year contributes to the pressure on the labour market. The number of graduates passing out in 2000 registered an increase of 36.3 per cent as against those in 1990 (Digest of Statistics, J&K, 2000-01). With matriculation and above degrees in their hands, these persons will add to the pressure on the employment situation in the state, further exacerbating the problem of educated unemployment and under employment.

A number of factors has contributed to the mounting problem of unemployment in the state. High population growth for J&K, growing at the decadal rate of 28.91 per cent between 1981-91 and at 30.46 during 1991-2001, against the population growth for the country as a whole was 23.56 per cent during 1981-91 and decreased to 21.43 per cent during 1991-2001. Employment generation, however, has not kept pace with the increasing population. Industrial development did not take place in the state to absorb the large pool of educated youth. The number of registered industrial units in March 2001 stood at 42808 with an employment of 1.9 lakh. Most of the industries set up in the state are in the small-scale sector with just a few medium and large scale industries. Lack of growth of medium or large-scale industries with forward and backward linkages has limited the scope for large-scale absorption of the unemployed. Poor infrastructure has kept private investors from outside the state away from investing in the state. Lack of entrepreneurship among the educated local youth for setting up their own business or trade has made them almost completely dependent on the government for jobs. The education system in the state has also contributed to the increasing problem of educated unemployment. With free education up to university level, students are encouraged to enroll for higher studies without considering the demands of the job market. Law-and-order problems in the state during early and the mid 1990s have slowed the pace of economic development affecting the creation of employment opportunities adversely.

GOVERNMENT INITIATIVE

The state government announced a job package of 26,000 jobs in 1997-98 to tackle the increasing unemployment causing much financial pressure on the state (Godbole Report, 1998). Now, however, there is a virtual freeze on state government employment, as government jobs have reached saturation point. The government has introduced certain self-employment schemes to encourage youth to set up their own enterprises. Various departments of the state implement these schemes emphasizing creation of income-generating assets for which the beneficiary can avail bank loan as well as subsidy. Special packages for career development and private placement of educated youth of J&K are: Jammu & Kashmir Self-Employment Scheme being implemented by the Department of Employment, Prime Minister's Rozgar Yojana (PMRY) implemented by District Industries Centres, Swarna Jayanti Shahri Rozgar Yojana (SJSRY) implemented by the Urban Development Agency, and Swarna Jayanti Gram Swarozgar Yojana (SGSY) implemented by Rural Development Agency.

In addition, to encourage private investors to invest in the state, the government has announced a package of incentives under its New Industrial Policy of 1998. Through this initiative, the government aims to attract industries in the state and create new employment opportunities for the local youth.

RECOMMENDATIONS FOR EMPLOYMENT GENERATION

- 1 Tourism has been a major source of income and employment for the local people in the state. However, this sector has been the main casualty due to militancy. By reviving the tourism industry, the state can re-establish those rendered unemployed; the government should develop a strategy to promote J&K as a tourist destination for domestic as well as foreign tourists.
- 2 Horticulture is another potential sector for income as well as employment generation. Presently, some 20 lakh people are employed in this sector. Developing this sector will not only increase direct employment but also increase employment in related activities such as servicing of inputs, packaging, transportation of fruits, etc
- 3 There is a tremendous scope for setting up agro-based industries in the state since the raw material required is locally available. This will also provide additional employment for the local youth in packaging, marketing and transportation of the products.

- 4 Developing sericulture can generate employment opportunities in the state. This sector has the potential of absorbing the entire family and becomes an important source of employment for female workers who would otherwise remain unemployed or under employed. Therefore, there is an urgent need to develop this sector through improved silkworm rearing, mulberry cultivation, etc.
- 5 Handloom and handicrafts is one of the traditional sectors of the state employing more than three lakh people. Emphasis on improving designs, colour combinations and marketing can generate additional income and employment.
- 6 There is a tremendous demand for dairy, poultry and fishery products. By developing this sector the state government can provide employment to the unemployed youth.
- 7 The state has a huge unexplored hydel potential. Harnessing this potential by constructing power projects can provide opportunities for both technical as well as non-technical jobs.
- 8 There is a need to develop local ventures that require skills to absorb those with matriculation and below degree, especially in the rural areas. The ITIs and polytechnics can impart training to this group.
- 9 Industry promotion in the state is essential to tackle the problem of education unemployment. The government should provide basic infrastructure to the investors and take a lead role in building up investors' confidence.
- 10 Proper career counselling should be given to students so that they make career choices according to the market needs and not because of easy admission to certain university courses.
- 11 Youth should also be encouraged to take up jobs even outside the state where investments are being made. The state needs to be better connected to the rest of the country through roads and railways so that there is more physical mobility.
- 12 Unemployment among young women is very high in the Ladakh region, accounting for 80 per cent of the unemployed youth. Males gets employment in military,

paramilitary and tourism industry, but the absorption of young women in these fields is practically nil. By providing appropriate training, women can be absorbed in hospitals as nurses, paramedical officers, laboratory assistants, etc. They can also be absorbed in schools and colleges and other jobs after suitable training.

- 13 Biotechnology (BT) and Information Technology (IT) are the new emerging knowledge-based industries which have high employment potential. Increased application of IT and BT in other sectors like horticulture, floriculture, agriculture, animal husbandry, etc. can enhance employment and income generation.

6. INFRASTRUCTURE

Power

INTRODUCTION

Growth in the consumption of energy is related to the growth of the economy, modernization, urbanization and improvement in the quality of life of the people.

India ranked sixth in the world in terms of total consumption of commercial energy during 1999. The country's consumption was only 12.5 per cent of that of USA, the world's highest consumer of energy and 37 per cent of China's, world's most populous country (CMIE, Energy, 2001). However, the energy consumption in India does not reflect the actual demand due to supply shortages.

For the year 1999-00, power consumption for the country as a whole was 319993 MKwH whereas the consumption for Jammu & Kashmir was 2915 MKwH, sharing 0.9 per cent of the total consumption for the country as a whole.

The state has a huge hydel potential estimated at 20,000 MW. of which less than 10 per cent has been exploited so far. Among the primary sources of commercial energy, Jammu & Kashmir has proven reserves of coal and lignite. The production of non-coking coal in 1999-2000 was 28 thousand tonne and lignite reserves in the state were 128 million tonne (CMIE, Energy, 2001).

Hydel energy is the cheapest source of energy available to the state, though thermal energy is also consumed in large proportions. The installed capacity in thermal plants as on 31 March 2000 was 184 MW. Thermal plants are basically used as standbys to back the hydel plants whose generation capabilities fall during winter season due to low river discharge. On the other hand, coal and lignite provide a high-cost option, because of difficult mining conditions in the case of low fuel value coal and lignite of high ash content.

Renewable energy, especially solar energy also has a vast potential in meeting the increasing demand for energy in the state. Solar energy can be an important source for Ladakh due to its sunny and dry climatic conditions.

The power sector in Jammu & Kashmir, however, is one of the most underdeveloped sectors in the state. It has not only been unable to keep pace with the growing demand but its supply to ultimate consumers has also been poor. In addition to large

unexplored potential, inadequate transmission and distribution network, huge transmission and distribution (T&D) losses, low power tariff, power thefts as well as long gestation period of the power projects have contributed to the dismal situation of the sector.

GENERATING CAPACITY

The installed capacity in the state as on March 1998 was 374.13 MW, with 190.19 MW in hydel plants and 183.94 MW in thermal plants. The 9th Five-Year Plan (1997-2002) was targeted to commission 14 ongoing hydroelectric projects with a total capacity of 144.46 MWs. These projects included small/mini hydel projects with up to 3 MW capacity as well as big projects like USHP-II (105MW). The generating capacity of the hydel plants increased to 232.7 MW in 2001 with no addition to capacity in thermal plants (Table III.27) During 1997-98 and 1998-99 there was no addition to the capacity whereas 35 MW was added during 1999-2000 and 8 MW during 2000-01 to the hydel capacity. The hydel capacity further increased to 300.15 MW by June 2002 (Table III.28). The hydro-thermal mix for the state was 51:49 in 1997-98 and the ratio increased to 56:44 in 2000-01.

Table III.27
Electricity availability in Jammu & Kashmir

Year	Installed Capacity (MW)			Generation (MKwH)		
	Hydel	Thermal	Total	Hydel	Thermal	Total
1997-98	190.19	183.94	374.13	892.00	59.00	951.00
1998-99*	189.00	183.90	372.90	662.00	6.00	668.00
1999-00	225.2	183.90	409.10	602.00	0.00	602.00
2000-01	232.70	183.90	416.60	551.00	5.00	556.00

* The figures for Installed capacity for 1998-99, 1999-2000 & 2000-2001 are provisional figures. Sources: (i) Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001.

(ii) Power Development Corporation, J&K, June 2002.

The entitlement for the state from Salal and Uri power projects is 34.39 per cent and 33.96 per cent respectively. This includes 12 per cent free power which the state is entitled to get as royalty from the projects set up under the central sector in the state.

GENERATION

Against this, the generation of power from the hydel projects was 892 MKwH and 59.00 MKwH from thermal projects in 1997-98 summing to 951 MKwH. Generation from hydel plants, however, fell to 551 MKwH in 2000-01 with only 5 MKwH of generation from thermal plants (Table III.27).

Table III.28
Existing Hydel Power Projects in J&K

Name of the Project	River Basin	Configuration	Installed Capacity (MW)
State sector			
Lower Jhelum	Jhelum	3x 35	105.00
Upper Sindh –I	Jhelum	2x11.3	22.60
Upper Sindh –II	Jhelum	3x35	105.00
Ganderbal	Jhelum	2x3+2x4.5	15.00
Karnah	Jhelum	2x1	2.00
Chenani-I	Chenab	5x4.66	23.30
Chenani-II	Chenab	2x1	2.00
Chenani-III	Chenab	3x2.5	7.00
Rajouri	Chenab	2x0.35	0.70
Sewa-III	Ravi	3x3	9.00
Ikbal Bridge	Indus	3x1.25	3.75
Hunder	Indus	2x0.20	0.40
Sumoor	Indus	2x0.05	0.10
Bazgoo	Indus	2x0.15	0.30
Stakna	Indus	2x2	4.00
<i>Sub- Total</i>			<i>300.15</i>
Central Sector			
Salal HEP	Chenab	6x115	690.00
Uri – I	Jhelum	4x120	480.00
<i>Sub-Total</i>			<i>1170.00</i>
Grand Total			1470.15

Source: Power Development Department, J&K, June 2002.

CONSUMPTION

Consumption of power increased from 2577.9 MKwH in 1997-98 to 3397.0 MKwH during 2000-01 recording an increase of 31.7 per cent. The domestic sector has been the biggest consumer followed by agriculture and industry. Domestic consumption showed an increase of 65 per cent during the same period, followed by an increase of 13.84 per cent in agriculture and 59.39 per cent in industrial consumption. The state is dependent on external sources to fill the wide gap between the demand and supply of power. The supply of power is measured by its own generation. Gross generation of power in the state is only 8.6 per cent of the total energy available as the latter includes the power purchase from central and other sources. Since the supply of power is usually not metered, consumption figures are only estimates and not actual consumption by the consumer.

Table: III.29
Electricity consumption in Jammu & Kashmir

(Million KwH)

Year	Total Consumption	Domestic	Commercial	Aariculture	Industrv	Railwav Traction	Outside the State	All other Consumers
1997-98	2577.9	652.70	125.5	439.2	313.7	0.0	0.0	1046.8
1998-99	2873.7	830.0	160.9	500.0	452.4	0.0	0.0	930.4
1999-00	2915	830	190	500	460	0.0	0.0	935
2000-01(AP)	3397.0	1077	250	500	500	0.0	0.0	1070

Sources: 1) Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001. 2) Power Development Corporation, J&K, June 2002.

Table: III.30
Net generation and total energy availability for the state

(Million Kwh)

Year	Net generation	Energy received	Energy received from central sector	Others	Energy availability
1997-98	942	3967	3918	49	4909
1998-99	706(P)	4723	4679	45	5429
1999-00	650(RE)	4851(RE)	4800	51	5501
2000-01	990(AP)	5449(AP)	5379	70	6439

Sources: 1) Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001. 2) Power Development Corporation, J&K, June 2002.

TRANSMISSION & DISTRIBUTION (T&D) NETWORK

According to the Sixteenth Power Survey conducted by the Central Electricity Authority (CEA), the demand for power is projected to increase from 6796 MUs in 2001-02 to 7214 MUs in 2002-03 and 9099 MUs by 2006-07. Peak demand is expected to grow to 1923 MUs by the end of the 10th Five Year Plan. To meet the future demand as projected, matching infrastructure is required. The state however, has a weak T&D system, inadequate both in coverage and supply.

The infrastructure requirement projected by CEA is given below.

Table III.31
Capacity of Sub-stations required at various voltage levels

(MVA)

Voltage Levels	2002-03	2006-07	2011-12
200/132 KV	2287	2884	3844
132/33 KV	2516	3173	4229
33/11 KV	2768	3490	4652
11/0.4 KV	3045	3839	5117

Source: Power Development Department, J&K, June 2002.

The present status of infrastructure vis-à-vis the requirement is as mentioned below:
Sub Stations available on 03/2002:

	<i>(MVA)</i>
200/132 KV	1680.00
132/33 KV	1787.28
33/11 KV	2015.40
11/0.4 KV	2507.49

Table: III.32
Status of transmission and distribution network in 2000-01

Voltage	Circuit kms	No. of sub-stations
220 KV	531	5
132 KV	1090	28
66 KV	223	13
33KV	2630	226
11KV	19905	17540
LT	46195	-

Source: Power Development Department, J&K, June 2002.

The HT-LT system is not well balanced in the state, being as high as 1.89 as against the ideal HT to LT ratio of one. The large LT network has also resulted in high T&D losses and poor voltages. Non-technical losses are also high on LT system.

TRANSMISSION AND DISTRIBUTION LOSSES

T&D losses in the state were as high as 47.5 per cent in 1997-98. The state, however, has been able to check the losses though they remain high at 46.5 per cent (2000-01). These losses include transformation losses as well as unaccountable consumption, of which latter accounts for more than half of the losses. The absence of metering of consumption due to non-installation or the non-functioning of the meters accentuates the problem. Power theft and pilferage exert additional pressure, forcing the state to purchase more from outside sources.

Table: III.33
Total energy availability and T&D losses

(MKwH)

Year	Net Generation	Purchases	Energy Available	Consumption	T&D losses	Percentage Losses
1997-98	942	3967	4909	2577.9	2330	47.5
1998-99	706	4723	5429	2873.7	2556	47.1
1999-00	650	4851	5501	2915	2586	47.0
2000-01	990	5449	6439	3397	2953	46.5

Source: Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001.

Although, the State Electricity Regulatory Commission Act has been enacted in the state, the commission is yet to be constituted. Once that happens, there would be rationalization of tariff and settlement of dispute between the power suppliers and consumers. The state government has also signed a Memorandum of Understanding with the Ministry of Power, Government of India, under Accelerated Power Development and Reforms Programme (APDRP) to provide good quality and uninterrupted power supply through various steps. These include de-segregation of transmission and distribution to attain commercial viability in the power sector, invitation of private participation in distribution, undertaking of energy audit at each level to reduce energy losses by 2003, installation of meters by 2003 in urban areas and by 2004 in rural areas, computerization of billing in urban areas by 2003 and rural areas by 2004 and making distribution operations to break even by March 2006.

Table: III.34
Rate of purchase and sale of power

(Paise/ Kwh)

Year	Rate of Purchase	Average Tariff
1997-98	130.7	34.35
1998-99	139.9	66.67
1999-00(RE)	144.5	156.36
2000-01(AP)	150.1	194.16

Source: 1) Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001.

2) Power Development Corporation, J&K, June 2002.

Table III.34 shows the gap between the average rate of purchase from various sources and the average tariff for sale of power, with rate of purchase being higher than the rate of selling, resulting in huge losses. Table III.35 indicates consumer-wise average tariff in J&K. Whereas most of the sectors enjoyed the highly subsidized rates of tariff, agriculture paid the minimum tariff. Low tariffs have also encouraged wastage.

Tariffs were revised in November 1997 after nine years and further revised in three steps effective from November 1998, April 1999 and April 2000. The third phase, however, has not been implemented so far.

Table III.35
Consumer-wise average tariff in the state

(Paise/Kwh)

Category	1997-98	1998-99	1999-00(RE)	2000-01(AP)
Domestic	31.50	48.00	85.00	125.00
Commercial	57.90	86.00	160.00	230.00
Agriculture	12.50	50.00	220.00	250.00
Industry	46.00	70.00	135.00	2000.00

Sources: 1) Annual Report on the working of SEBs & Electricity Departments, Planning Commission, GOI, 2001.

2) Power Development Corporation, J&K, June 2002.

RURAL ELECTRIFICATION

By the end of 8th Five-Year Plan (1996-97), there were 232 unelectrified villages of the total of 6477 inhabited villages in the state. Reasons cited for slow electrification were: that the leftover villages were mostly remote, sparsely populated and inaccessible and did not fulfill the viability norms under Rural Electrification Corporation (REC) loan Assistance (8th Five Year Plan Document).

During the Ninth Plan, the state was to achieve a target of electrification of 150 villages. However, this target could not be achieved and only 39 villages were

electrified during the Ninth Plan period and the remaining 193 unelectrified villages have been set as a target for the Tenth Five-Year Plan (Draft 10th Plan Document). The number of rural electrification schemes has increased from 137 at the beginning of Ninth Plan to 189 at the beginning of Tenth Plan. Of the 6,477 inhabited villages in the state, 6,295 stand electrified as on October 2002, of which 4,411 villages have been electrified with REC loan funds.

Due to declining interest of the State Electricity Board in raising interest-bearing loans from the REC for Village Electrification Programme, village electrification was made a part of the Prime Minister's Gramodya Yojna (PMGY) from the year 2001-02. The funds for this programme now flow to the state in the form of central assistance. Allocation under PMGY to Jammu and Kashmir was to the tune of Rs. 19.60 crore in 2001-02. During that year, 15 un-electrified villages, 256 hamlets and 84 tribal and Dalit *bastis* have been electrified.

STRATEGY FOR FUTURE DEVELOPMENT

Micro Hydro Projects

Though hydel power has a large potential in the state, most of the unexploited potential is located in difficult/inaccessible areas. In such areas, the role that small and medium hydro projects can play in meeting the local power requirements by tapping water streams and rivers of small discharge cannot be overlooked. Moreover, the development of this source of power would also avoid the necessity for using other expensive fuels for which the state has to depend on external sources. This would not only increase the availability of power to meet the increasing demand of the consumers but also reduce the cost of generating power.

The Ministry of Non-conventional Energy Sources has identified 106 sites up to 3 MW capacity with a total capacity of 145.52 MW and 78 sites with an aggregate capacity of 728.75 MW for projects in the range of 3-15 MW capacity in Jammu and Kashmir. By the end of the year 1999-2000, a total of 17 projects (up to 3 MW capacity) had been set up with a total installed capacity of 8.37 MW, whereas 10 projects with an aggregate capacity of 13.31 MW were under construction. The large untapped potential of the state needs to be identified through detailed survey and investigation.

Renewable Energy

Renewable energy can also play an important role in meeting the increasing demand

for energy in the state. Solar energy can be an important source, especially for Ladakh which presently gets electricity either through its hydel projects or through diesel sets. Ladakh is not connected to the grid and the villages in the region usually depend on diesel sets. The hydel power plants remain closed for months together during winters due to freezing of water and in summers due to high siltation. In addition, the topographical conditions are such that villages are scattered over long distances. Due to this, a central generating and evacuating system with large T & D network does not seem to be feasible. The power solution for the region lies in the dual strategy of concentrated generating system for pockets where population is concentrated and decentralised system for less populated areas.

Inadequate and erratic supply of electricity through the existing hydel projects and diesel sets, absence of conventional fuels like coal and lignite along with the environmental hazards of using energy based on these resources make the option of solar energy attractive. More than 300 days in a year are sunny and dry, increasing demand for energy provides both the need as well as opportunity to use renewable sources of solar energy. It has the added advantage of widespread use, non-polluting nature and inexhaustible supply over other fuels.

In the case of diesel sets, the fuel has to be transported from the plains. Due to the region's remoteness and inaccessibility, the cost of transportation and operation and maintenance as well as the cost of generation per unit (which is around Rs.10 to Rs.12) is very high. Solar energy can be put to use for various purposes like home and street lighting, cooking, water and space heating, water pumping, etc.

Solar Photovoltaic Technology

Solar photovoltaic (SPV) technology enables direct conversion of sunlight into electricity without any moving parts and without causing pollution. The SPV device has, of late, emerged as useful in providing energy for lighting purpose and operation of various gadgets like hospital equipment and solar water pumping for agriculture and related uses. SPV is being used in the state for domestic light, street lights and solar lanterns.

The Ministry of Non-Conventional Energy Sources, Government of India, has been providing subsidy to the users to promote the use of SPV. The state has also set targets to electrify the remaining unelectrified villages by non-conventional energy mode. A 40 KW solar power plant has been installed in Ladakh and 500 households are being provided electricity through this plant. It has been a success, having reduced the consumption of diesel to provide power.

Geo-thermal Energy

Puga valley in Ladakh has a high potential for geo-thermal energy. The Geological Survey of India has done a preliminary survey of the valley by drilling at various spots. Its results are awaited. However, it is estimated that around 40 MW of power can be obtained from this source and exploitation of the same can further ease the power situation in the region.

Developing renewable energy project needs technical expertise plus a lot of financial and administrative support by way of getting clearances at various stages and awareness generation about the advantages of using renewable energy. This is where the government is expected to play a larger role with or without the help of private participants.

CHALLENGES AND OPPORTUNITIES

The peak power demand is expected to rise from 1437 MW in 2001-02 to 1923 MW in 2006-07. Presently, the peak demand is around 1525 MW against which a supply of 500-600 MW is only available.

Another problem facing power generation is the low discharge of the rivers during winters. Since all hydel projects in the state are run-of-the-river type with no storage, the generation reduces to 25-30 per cent of the installed capacity. The state has to rely on purchases from other states plants to meet its demand. Despite large purchases from the central plants and other states, it is unable to meet its peak demand and has to curtail power supply for long hours in summers as well as winters. The state's low generation as well as lack of purchasing power is often cited as the reasons for curtailment.

To augment power generation, there is need to harness the hydel potential to make the state self-sufficient and add to the National Grid. Once this is achieved, the state can resort to power trading during winters when the discharge of water is low and the generation falls i.e., purchasing power from the surplus state during winters and selling during summers when generation is high. This would bring down the curtailment for power consumption in the state and overdraw from the grid.

For this, development of four projects - Sawalkote 600 MW, Baglihar-II 450 MW, Parnai 37.5 MW and New Ganderbal 93MW - has been prioritized in the state sector. There are other projects which are nearing completion and will be commissioned in two- three year's time.

Table:III.36
Upcoming Hydel Projects in J&K

Name of the Projects	Installed Capacity (MW)	Expected date of commissioning
<i>State Sector</i>		
Baglihar	450.00	2004-05
Pahalgam	4.50	2002-03
Matchil	0.35	2002-03
Haftal	1.00	2002-03
Sanjak	1.26	2002-03
Marpachoo	0.75	2002-03
Igo-Mercellong	3.00	2003-04
Bhandarwah	1.50	2002-03
Dumkhar	2.25	2004-05
Sub- Total	464.61	
<i>Central Sector</i>		
Dul Hasti	390.00	2003-04
Grand Total	854.61	

Source: Power Development Corporation, J&K, June 2002.

In addition to the aforementioned projects, the seven projects mentioned in Table III.37 have been transferred to National Hydro-Electric Power Corporation (NHPC) for execution in the central sector under Build-Own-Operate-Transfer (BOOT) system. As per the Memorandum of Understanding (MoU) signed between the central and the state government these projects are to be fully completed by 2010. The state will get 12 per cent free power on the completion of these projects as royalty and a share of un-allocated quota to the extent of 15 per cent.

Table III.37
Projects transferred to NHPC under BOOT system

Name of the project	Installed Capacity (MW)
Kishenganga HEP	330
Uri-II	280
Burser	1020
Pakal Dul	1000
Sewa-II	120
Nimo-Bazgo	30
Chutak	18
Total	2798

Source: Power Development Corporation, J&K, June 2002.

The CEA has not considered Kishenganga viable even after considering the benefits from all downstream projects. The Ministry of Power has been approached to take up the matter with the CEA to either review or abandon the project as unviable. Additional investigation required for upgradation of Detailed Project Report (DPR) formulated by Government of J&K has been taken up in the case of Uri-II, Sewa-

II and Pakal Dul. Major works are expected to start in August 2004 in the case of Uri-II, July 2003 in the case of Sewa-II and January 2005 in case of Pakal Dul. Major work on Burser is expected to start in January 2005. The Stage –I cost estimation for Nimo- Bazgo has been cleared by CEA in April 2002 and Stage-I investigation taken up. Field activities (Stage-I) are in progress for preparation of a feasibility report to enable assessment of the commercial viability of Chutak.

Paucity of funds is another reason for slow addition to the generating capacity of the state. There has been constant delay in completion of the projects, where targets set for one Plan have spilled over to the next. For this reason the state experienced no or negligible addition to the generating capacity during 8th and 9th Plan periods. Law-and-order problems have also contributed to the delays.

Power sector outlay & share of power sector outlay in total outlay

(Rs. in crore)

	Power Sector	All Sectors	%
Eighth Plan	1175.2	4000.00	29.38
Ninth Plan	2387.00	9500.00	25.13

Of the total Plan outlay of Rs. 4000 crore during the 8th Plan, the power sector's share was 29.38 per cent. The allocation was comparable to the other states. During the 9th Plan, however, the allocation increased in absolute terms, share of the sector out of the total outlay decreased to 25.13 per cent. This, in spite of the fact that the state needs large investments to develop its hydel potential.

Premier power financial institutions of the country have recently been approached by the state for the completion of the ongoing schemes. Whereas USHP-II, Chenani-III & Sewa-III have been completed with the help of loans from the Power Finance Corporation (PFC), the Rural Electrification Corporation (REC) has been approached for assistance to complete some other on going projects.

In the absence of sufficient funds, increasing demand for power and huge unexplored potential, the private sector is expected to play an important role. It is also important to undertake reforms/measures to make investments attractive. The state, however, has to ensure that the private investors do not face undue administrative hurdles, further increasing the gestation period. For this the state has proposed to provide the following incentives:

1. Fully investigated schemes for development by the private investors;
2. Clearances from different agencies for development of the scheme; and
3. Arranging the land required for the project.

Tariff rationalization and other distribution reforms would also encourage private participation in the distribution sector. The Private sector's presence would improve the overall performance of the sector through proper metering and billing of the power sales, energy audits, and reduction and ultimately elimination of power thefts, etc.

Given the fact that the state has to depend mostly on purchases to meet its demand and the wide gap between the rate of purchase and sale of power, plus the fact that the cost of energy from all future plants being set up under the state, central and private sectors would be higher, it is critical that the state takes steps to reduce T&D losses (technical and non-technical), operational expenditure and ensures proper metering, meter reading, billing of services and revenue collection.

Roads

Road development in Jammu & Kashmir is important, given the terrain of the state and limited development of alternate means of transportation. A well-developed network of roads is necessary not only for the economic development of the state but for its social, political and cultural development. It is required to exploit the rich natural wealth of the state, to develop indigenous industries, to explore new markets for its products and to promote tourism. To this effect the state government has been laying targets in each Five-Year Plan to build new roads, maintain and upgrade already existing roads, construct bridges and culverts and connect villages with a network of roads.

EXISTING ROAD NETWORK

In Jammu & Kashmir, roads are maintained by the Public Works Department (PWD), Border Roads Organization (BRO) and various state government departments, which maintain roads for their departmental purposes. Almost all of these roads, however, are open to the public.

There were 13539 km of roads in the state as on March 2000 (provisional). Of the total, 11,260 km were surfaced and 2279 km were un-surfaced (Table-III.38). This figure excludes the length of National Highways and other roads not maintained by the state P.W.D. The BRO has taken up the maintenance of National Highways in the state. The total road length maintained by BRO as on March 2000 was 3715 km of which 2954 km were surfaced and 761 km unsurfaced roads (Digest of Statistics, J&K, 1999-2000).

Other departments in the state, viz., the Forest department, Irrigation and Flood Control and C.D & N.E.S. department, maintain a total of 16090 km of roads (Digest of Statistics, Govt. of J&K, 1999-2000). Surfaced roads accounted for 1964 km whereas 14126 km were un-surfaced.

Table: III.38
Roads in different Districts of Jammu & Kashmir

(as on 31.3.2000)

Districts	Road Length (km)			Road Length/100 sq Km of area			Road Length/Lakh of population		
	Sur-faced	Un-surfaced	Total	Sur-faced	Un-surfaced	Total	Sur-faced	Un-surfaced	Total
Anantag	1223	105	1328	30.7	2.64	33.33	104.53	8.97	113.50
Pulwama	875	3	878	62.6	0.21	62.80	138.38	0.47	138.85
Srinagar	1386	39	1425	62.21	1.75	63.96	111.91	3.15	115.06
Budgam	1109	13	1122	80.9	0.95	81.84	186.77	2.19	188.96
Baramulla	1447	106	1553	31.54	2.31	33.85	124.02	9.08	133.11
Kupwara	710	112	822	29.84	4.71	34.55	110.93	17.50	128.43
Leh	416	748	1164	0.92	1.66	2.58	353.63	635.85	989.48
Kargil	400	276	676	2.85	1.97	4.82	347.14	239.53	586.67
Jammu	1592	137	1729	51.40	4.42	55.83	101.28	8.71	109.99
Udhampur	530	189	719	11.65	4.15	15.80	71.72	25.58	97.30
Doda	392	221	613	3.35	1.89	5.24	56.77	32.01	88.78
Kathua	670	112	782	25.27	4.22	29.5	123.11	20.58	143.69
Rajouri	348	163	511	13.23	6.2	19.43	72.71	34.06	106.77
Poonch	162	55	217	9.68	3.28	12.96	43.60	14.80	58.40
Total	11260	2279	13539	5.07	1.02	6.09	111.82	22.63	134.45

Source: Digest of Statistics, J&K, 2000-01.

P.W.D, Kashmir, June 2002.

P.W.D., Jammu, June 2002.

Table: III. 39
Existing Roads in Jammu & Kashmir

District	Black Top	Metallic	Shingled	Fair Weather	Jeepable	Total
Anantag	596	249	378	41	64	1328
Pulwama	455	378	42	3	0	878
Srinagar	1002	316	68	19	20	1425
Budgam	436	296	377	13	0	1122
Baramulla	576	568	303	89	17	1553
Kupwara	258	315	137	91	21	823
Leh(R)	183	42	191	709	39	1164
Kargil (R)	120	192	88	240	36	676
Jammu	1507	32.5	53	127.5	10	1729
Udhampur	373	95	62	189	0	719
Doda	162	190	40	217	4	613
Kathua	545	61	64	110	2	782
Rajouri	164	47	137	163	0	511
Poonch	104	7	51	53	2	217

Source: R&B, Kashmir, June 2002.

R&B, Jammu, June 2002.

Digest of Statistics, J&K, 2000-2001.

Road length per 100 sq km of area, calculated in Table III.38 for the state gives the value of 6.09 km. The Table also shows that Budgam district has the highest road density of 81.84 km. Breaking it further into surfaced and unsurfaced roads shows

that the district has 80.9 km of surfaced roads and 0.95 km of unsurfaced roads per 100 sq km of the area. In sharp contrast to this are the districts of Leh, Kargil and Doda with 2.58, 4.82 and 5.24 km of roads per 100 sq km of area. This can be explained partly by the fact that Leh is the largest district in terms of area in the state followed by Kargil and Doda and partly due to the problems faced in road development on account of difficult terrain of the districts, nature of soil along with a short working season.

However, road length per lakh of population gives a better picture. The value for the state is 134.45, with Leh and Kargil showing values as high as 989.48 and 586.67 respectively. This is chiefly because of the sparse and scattered population especially in Leh and Kargil. Districts like Doda, Poonch in Jammu Division show a very low value of 88.78 and 58.40 respectively. On the whole, districts in Jammu division lag behind the districts in Kashmir Valley as far as road infrastructure is concerned. Difficult terrain as well as severe law-and-order problems have contributed to connectivity.

REGIONAL DEVELOPMENT OF ROADS

Kashmir valley had a total of 7128 km of road network as on March 2000, with 4571 km in Jammu and 1840 km in Ladakh region. From the Ninth Plan onwards, the thrust of the Roads and Bridges (R&B) department has been on the construction of bridges and culverts and public assets damaged during militancy, connecting all unconnected villages to nearest roads and completion of schemes which have spilled over from the 8th Five-Year Plan.

ADDITIONAL CENTRAL ASSISTANCE

During the period of militancy, a large number of major and minor bridges were gutted or damaged. In 1996, 157 major and 244 minor bridges were identified for reconstruction. Of this number, 109 major bridges and 128 minor bridges were taken up for construction. The total cost of the reconstruction of the bridges taken up was assessed in 1996 at Rs.196.00 crore; it has now increased to Rs.500.00 crores. Against this, the state has already spent an amount of Rs. 172.48 crore; 76 major as well as 106 minor bridges have been completed so far. The remaining 33 major bridges and 22 minor bridges are under construction. The state, however, received only a one-time allocation of Rs.20 crore under additional central assistance in 1997-98 from the government of India for reconstruction of damaged bridges.

NABARD PROJECTS

In the wake of the state government's inability to provide the financial resources required to develop and maintain rural infrastructure, loans were raised from NABARD as a major supplement to the state plan. The NABARD assistance received by the R&B department under Rural Infrastructure Development Fund (RIDF) is meant for upgradation of roads in rural areas. In all 380 projects in Kashmir Valley were sent to NABARD for funding. Of these only 284 have been sanctioned. The total number of schemes in Phase -I were 157 and 127 in Phase-II, coming to 2629.10 km of road length at the cost of Rs 3455.22 crore. The break-up of these schemes under various trenches of RIDF is:

RIDF IV	-	26 schemes	
RIDF V	-	87 schemes	} Phase I
RIDF VI	-	44 schemes	
RIDF VII	-	127 schemes	} Phase II

Status of the schemes:

Till June 2002, a total of 21 projects under RIDF-IV had been physically completed. The remaining 92 projects under RIDF-IV and V are expected to be completed by March 2003. NABARD loan received till March 2002 was to the tune of Rs.95.42 crore and 728.4 km of black topped and 1848 km of metallic roads have been added. For the current year, Rs. 46.55 crore has been earmarked.

Implementation of the NABARD projects in Jammu started in the year 1998-99. The break-up of schemes under various trenches is:

RIDF IV	-	30 schemes sanctioned
RIDF V	-	39 schemes sanctioned
RIDF VI		112 schemes sanctioned

Total - **181**

A total of 181 schemes had been sanctioned till March 2002, at the loan cost of 152.16 crore. The state's contribution was to the tune of Rs. 16.91 crore. The total cost of the schemes was therefore Rs.169.07 crore. For the year 2002-03, a total of 70 schemes have been sanctioned under RIDF VII and RIDF VIII, as given below:

	No. of Schemes	Loan Component (in Rs. crore)
RIDF VII	34	34.72
RIDF VIII	36	43.29

In addition to the loan, 10 per cent will be contributed by the state. Of the 181 schemes sanctioned for the upgradation and improvement of roads, 20 schemes had been completed till March 2002. Ten schemes have been completed under RIDF IV, 5 each under RIDF V and RIDF VI.

This year, NABARD loan for upgradation and improvement of rural roads has been sanctioned to Ladakh as well. The projects taken up under NABARD scheme have to be completed within a period of three years.

CENTRAL ROAD FUND

Besides NABARD funding, the state gets funds under the Central Road Fund (CRF), from the Central Government, to take up small schemes, which were nearing completion but could not be completed due to lack of funds. This is a 100% Centrally Sponsored Scheme (CSS). The state government was to identify projects nearing completion so that they could be completed in time and benefits reach the public within short span of 1-2 years.

Initially, during the year 2001-02, a total of 3 projects were sanctioned in the Kashmir valley at the total cost of Rs. 15.56 crore along with 7 additional projects.

Table III.40
Schemes under CRF programme (2001-02)

Sl.No.	Scheme	Cost (Rs in Crore)	Status in June, 2002
1	Construction of Nowpora bridge	18.23	Completed
2	Widening of Srinagar – Barmulla road from Batamallo Bridge to Qamerwali	11.27	Work in progress
3	Improvement of Srinagar Harwan road	2.47	„
4	Construction of dual carriage Hazratbal crossing to Zakura	3.45	„
5	Construction of dual carriage from Nageen Club to Hazratbal	3.12	„
6	Saidkadal to Ashaibagh	3.69	„
7	Rainawari Hospital to Saidkadal	3.32	„
8	Khonkhan to Rinawri	3.63	„
9	Dalgate to Khonkhan	3.54	„
10	Habak crossing to Zakura	2.18	„

Source: R&B Dept., Kashmir, June 2002.

In Jammu Division, the Ministry of Road Transport and Highways, Government of India had sanctioned fifteen schemes at the cost of Rs. 39.87 crore up to March 2002. The R&B department, Jammu division, had initially sent 90 projects to the

Ministry of which only fifteen were sanctioned. So far only Rs. 6.63 crore has been received and one scheme completed.

ROADS OF ECONOMIC IMPORTANCE

During 2001-02, a few roads were identified as roads of economic importance on the criteria that they should lead to rise in the socio-economic condition of the region. This was to include roads for the promotion of tourism, horticulture, etc. These schemes were to be funded jointly by the centre and the state on a 50:50 basis.

In Kashmir Valley, four projects have been taken up at an estimated cost of Rs. 6.18 crore. The state's contribution is Rs 3 crore and an equal amount will be contributed by the centre. In Jammu Division, nine schemes have been identified under this head at an estimated cost of Rs. 12.50 crore. However, the Ministry of Road Transport and Highways, Government of India, has given consent for only three schemes. No funds whatsoever had been released till June 2002.

CHALLENGES AND OPPORTUNITIES

1. According to the norms laid down by the Ministry of Road Transport and Highways, funds required for maintenance of roads and bridges are very high as compared to the funds actually received under the Plan allocation. In Leh (Ladakh), however, this cost has to be taken out of the non-Plan allocation or the district plan since allocation under state plan is very small.
2. The state government has proposed a project to connect Pampore Lassijan to Rambagh via Padshaibagh by construction of four bridges at the cost of Rs. 274 crore. This will provide an alternative route to those who have to go to the south of the valley, given the growing and burgeoning intensity of traffic in the valley. The project has been discussed with the Central Government for funding but it has not been cleared till date. The state government, however, is keen to see it through.
3. The National Highway, NH-1 is the only road connecting the valley to Jammu and the rest of the country. This approximately 300 km long road remains closed for long periods of the year due to bad weather and is also vulnerable to landslides. The state government intends to build an alternate road to the existing National Highway. The proposed Highway would be shorter in length by about 80-90 km than the existing National Highway-1. It would also have 40-50 tunnels

at various spots to make it free from vulnerabilities. The project cost is likely to be Rs. 200 crore. The government of J&K had engaged an Austrian consultancy firm to prepare the project feasibility report for which HUDCO has sanctioned Rs. 2.30 crore to the State government.

It is suggested that the Centre should explore the feasibility of the project proposal rather than the state government, given the fact that the state with its limited financial resources would not be in a position to build this road.

4. Over the years traffic on the roads in the state has increased manifold especially on the National Highway, making it almost imperative to upgrade it. The stretch from Banihal to Srinagar needs to be upgraded from two lanes to four lanes.
5. Tawi Bridge III, which is a sanctioned scheme under Central Road Fund, could not be completed in time due to the slow release of funds by the Centre. The state government, under the scheme, was to fund the construction of the sub-structure, which is complete but the slow funding from the centre for constructing the super-structure has delayed the completion of the bridge.
6. Ladakh faces a problem of high cost of construction since all the building material has to be brought from the plains at high transportation cost. Since distances between villages are considerable, providing connectivity to all the villages becomes very expensive. Per capita road length therefore, does not hold much meaning. There is also discontent among the officials that the region does not get much allocation under the state plan and much of the expenses have to be borne out of district plan, which again is not a big amount.
7. Due to locational disadvantage, developmental works have to be suspended in the region for 5-6 months a year. Providing year-long access to the region becomes important in this context. The construction of a road from Tsomoriri to Spiti in Himachal Pradesh via Parangla Pass, a stretch of about 60 km, can provide connectivity to the region almost throughout the year. This route would provide many advantages. For instance, it would have only one pass on which a tunnel could be made to ensure connectivity. Moreover, the Manali-Leh road is no alternative since it opens only after the Leh-Srinagar road opens and closes before the latter due to heavy snowfall.

Transport

ROAD TRANSPORT

Road transport is the only means of transport for the people of the state in the absence of railways. The developmental work in the state has up to now focused on developing road network to meet the increasing traffic pressure. During 1989-2000 the road network increased by 1¼ times, while the traffic on the roads has increased by more than 2 ½ times (Digest of Statistics, J&K, 1999-00). Besides, there are other operational and commercial problems faced by the transport sector like frequent landslips, narrow roads, short working season of about 6-7 months, etc.

STATE ROAD TRANSPORT CORPORATION

The J&K State Road Transport Corporation (JKSRTC) came into existence in September 1976 on the conversion of the J&K Government Transport Undertaking. Like most of the 64 state transport corporations, JKSRTC is a loss-making public sector undertaking. Its losses reached Rs. 310 crore in the year 1998-99, according to the annual accounts report tabled in the state Legislative Assembly (*Kashmir Times*, 17 March, 2002). The audit report identified that books of accounts were not maintained in accordance with the principles of commercial accounting system and there were abnormal delays in recoveries, adjustment of balance, under advances, deposits, and purchases.

Table III. 41
Fleet held and operative and revenues earned

Year	Fleet Held (Number)	Fleet Operative (Number)	Percentage utilization	Volume of Operation (lakh Km)	Total Revenue (Lakh Rs.)
1997-98	1347	687	51	272.61	3148.55
1998-99	1287	731	56	273.97	3457.82
1999-00	1239	807	65	313.95	4460.44
2000-01	1258	839	63	326.27	4414.77

Source: State Road Transport Corporation, J&K, June 2002.

The reasons cited for the losses are:

1. De-nationalisation of roads: The National Highway from Leh to Srinagar and up to Lakhanpur in Jammu used to be a nationalized route, restricted to the operation of SRTC vehicles only. For the past few years, private operators have been issued permits for plying on this route because of which SRTC is losing revenue.

2. The private fleet on roads within the cities has increased immensely as compared to the SRTC fleet. The private-SRTC fleet ratio is 80:20. However, private operators have moved out of the un-economical routes, leaving the job of providing connectivity to such areas to SRTC because of social and other obligations.
3. The state government fixes fares charged by SRTC whereas private operators can charge lower rates to attract more passengers.
4. Various departments of the government, along with the Armed Forces, have large dues in favour of JKSRTC, recovery of which is very slow.
5. Though all state government departments should engage SRTC vehicles for official purpose, they generally hire private vehicles, leading to low revenues for SRTC.
6. Turmoil in the state has also hit the revenues of the corporation by reducing the inflow of tourists to the state. Almost 114 vehicles of SRTC have been damaged during militancy.

In addition, Plan allocation does not reach the corporation in full or in time. Against an allocation of Rs. 4.5 crore, only Rs 3.37 crore was released in 2000-01. Likewise, in 2001-02, Rs 0.45 crore against an allocation of Rs 4.03 crore was released.

Table III.42
Plan Allocation to SRTC

(Rs.in lakh)

Year	Approved	Released
1999-2000	500.00	500.00
2000-01	450.00	337.50
2001-02	403.00	45.00

Source: State Road Transport Corporation, J&K, June 2002.

According to the norms of the corporation, the life of a vehicle is ten years. This means that on an average, roughly 10 per cent of the fleet should be replaced every year. The corporation, however, has not been able to do so resulting in low efficiency. Increasing running cost of the vehicles and increasing salary component have also contributed to the losses. Whereas the operating cost has increased four-five times in the past few years, revenues have only doubled. This widening gap between the two has resulted in accumulation of losses.

The state government has engaged the Central Institute of Road Transport, Pune, for

working out a plan to restructure or revive the corporation. Since providing transport services to the people is a social obligation of the government, privatisation is not the best possible solution. It is important to note that public transport is the only means of transport to remote villages where private operators do not ply due to uneconomical returns. The government should therefore perceive SRTC as a social obligation and not merely as a profit making corporation. The corporation's fleet should be limited to only those routes where private operators are not forthcoming. The state government should also ensure that the private operators follow their respective routes without causing inconvenience to the commuters.

Table III. 43
Cost and revenue earned per km

(In Rupees)

	1997-98	1998-99	1999-00	2000-01
Average Operating Revenue, EPKM ¹	10.72	12.08	12.96	12.75
Cost per Km., CPKM ²	25.52	28.59	27.73	27.65

Source: Annual Accounts, JKSRTC, 2002

Notes: 1. EPKM= Earning per km.

2. CPKM= Cost per km.

RAILWAYS

The rail-road mix of transport in the state is very low. Jammu city is the railhead for the state. Kashmir Valley and Ladakh are totally dependent on road transport. This has both economic and environmental implications. Industrial growth in the country, as well as elsewhere in the world, in the past, has taken place in areas with a well-laid rail network. J&K has lagged behind in attracting industries because of high fuel costs involved in bringing in the raw material and taking finished goods to the markets, which has adversely affected the pace of economic activity in the state.

Though under construction for many years now, the Jammu-Udhampur railway line is expected to be completed by the end of 2003. The Udhampur-Katra and Qazigund-Baramulla sections of Udhampur-Baramulla rail project are expected to become operational by 2005. This project needs to be given high priority, as taking of railway line into the valley will open up new avenues and opportunities for economic development and social transformation. Not only will it improve the connectivity of the state to the rest of the country, but provide opportunities of employment and income generation to the local youth, while also enabling easy movement of raw material and finished products from the state.

AIR TRANSPORT

Jammu and Kashmir is connected to Delhi, Chandigarh and the rest of the country through air transport as well. There are three civil airports in the state – Jammu, Srinagar and Leh. Within the state there are three lines: Jammu-Srinagar, Srinagar-Leh and Jammu-Leh. Table III.44 gives the details of the aircraft and traffic movement at the three airports of the state during 1998-99. Share of each airport out of total airports of the country is also given.

Table: III.44
**Aircraft movement, Passenger and Cargo traffic
in the State Airports:1998-99**

(in numbers)

Airport	Domestic Aircraft Movement	Percentage Share	Domestic Passenger Traffic	Percentage Share	Domestic Cargo Traffic	Percentage Share
Jammu	3542	1.09	243079	1.01	650	0.29
Srinagar	2362	0.73	195427	0.81	745	0.33
Leh	1070	0.33	90415	0.38	367	0.16
Total	325392	100	24072631	100	224490	100

Source: Airports Authority of India website, 2002.

Of the total domestic aircraft movement in the country, the state accounts for only two per cent. The passenger traffic in the state's domestic airports is also approximately two per cent of the total passenger traffic in the domestic airports of the country.

The state sparsely populated and scattered as it is, needs more airports and better air connectivity. Kargil airfields have been ready for quite sometime but are not yet operational. Putting Kargil on the air map will open up the region to tourism and lead to economic development of the area. Air frequency to Leh also needs improvement, particularly during summer which is the tourist season for Ladakh. Remote places like Gurez, Kupwara, Poonch, Rajouri and Kishtwar need to be connected by air. If small airfields, which can enable smaller planes to land, are developed at these places, it would indeed give a big impetus to the development of these inaccessible areas. A beginning could perhaps be made by taking up the development of two airfields.

RECOMMENDATIONS

There were 13540 km of roads in the state as on March 2000 apart from national highways with 3715 km of road length maintained by the state. Other departments

in the state, the Forest department, Irrigation and Flood Control and C.D & N.E.S. department, maintain a total of 16090 km of roads.

Difficult terrain as well as severe law-and-order problems have contributed to poor connectivity. There are inter-district variations in respect of connectivity of roads. In terms of road length per 100 sq. km of area, Budgam district has the highest road density of 81.84 km in contrast to the districts of Leh, Kargil and Doda with 2.58 km, 4.82 km and 5.24 km respectively. On the whole, districts in Jammu division lag behind the districts in Kashmir Valley as far as road infrastructure is concerned. For the development of roads, Central Road Fund, Additional Central Assistance and loans raised from NABARD have been utilized.

Traffic on the roads has increased by more than 2½ times as against a 1¼ times increase in the road network during 1989-2000. In addition to the traffic growth, there are other operational and commercial problems faced by the transport sector like frequent landslips, narrow roads and short working season of about 6-7 months. The rail-road mix of transport in the state is very low. As Jammu city is the railhead for the state, Kashmir Valley and Ladakh are totally dependent on road transport. The state, with three civil airports at Jammu, Srinagar and Leh, is connected to the rest of the country through air transport too.

Telecommunication

INTRODUCTION

Telecommunications is a significant part of the infrastructure of the economy. In spite of a large telecom network, in absolute terms India suffers from low penetration. Given its large unserved population, there is tremendous potential for growth in this sector. To tap this potential, the telecom sector in India has been witnessing a continuous process of reforms since 1991. The New Telecom Policy (NTP) announced in 1999, modified the NTP 1994, to take into account far-reaching technological global developments in the telecom sector.

The performance of telecommunications is judged by indicators like demand and supply measures, quality of service provided, economic and financial performance, capital investment, tariffs, etc. Demand for telecommunication is measured by the sum of telephone mainlines and the number of registered applicants for new connections. However, the list of registered applicants does not reflect the real current pending demand. Extremely short supply may discourage potential applicants from applying for telephone connections (World Development Indicators, The World Bank, 1999). However, in some cases, a waiting list may overstate demand because applicants may register themselves several times to improve their chances.

Telecom penetration in India is very low as compared to other developing countries of the world. The number of telephone mainlines per 1000 persons was only 19 in 1997 for India as compared to developing countries like China with 56 and Brazil with 107 mainlines per 1000 people (World Development Indicators, The World Bank, 1999).

The tele-density, i.e., connections per hundred people, for India as a whole, was 3.04 in 2001. The New Telecom Policy (1999), however, aims at achieving a tele-density of 7 by the year 2002 and 15 by 2010. Where as tele-density in the urban areas was 8.47, rural connectivity showed an even dismal picture with 0.12 connections per 100 persons (Table III.45). The situation is no different in the state of Jammu & Kashmir with a tele-density of 1.65 per hundred persons, with tele-density in rural areas being as low as 0.12.

Table III.45
Tele-density in Jammu & Kashmir

(as on 31.3.2001)

State/Country	Urban	Rural	Total
Jammu & Kashmir	6.33	0.12	1.65
India	8.47	0.85	3.04

Source: Website of Department of Telecommunication, GOI.

In the absence of private operators, Bharat Sanchar Nigam Limited (BSNL) is the only basic telephone services providing body in the state. The J&K Telecom Circle has 5 Secondary Switching Areas (SSA), namely Jammu, Srinagar, Udhampur, Rajouri and Leh. Taking together all the SSAs, there were 314 exchanges of various capacities in J&K as on November 2000, which increased to 349 in June 2002.

Table III. 46
Telephone Exchanges: Current Status

	11/2001	6/2002
Telephone Exchanges	314	349
Equipped Capacity	277352	317520
Working Connections	198357	231777
Waiting List	48119	42266

Source: Website of Department of Telecommunication, GOI.

Jammu's telecom district comprises Jammu and Kathua revenue districts. These had an equipped capacity of 1,23,564 lines and 106 electronic exchanges as on 30/11/2001. Of the 106 exchanges, 43 have STD facility. Rajouri SSA comprises the two revenue districts of Rajouri and Poonch. During March 2002, additional C-DOT exchanges were installed in the telecom district. The area is also being provided with Optical Fibre Cable Network (*The Kashmir Times*, 3 April, 2002). Udhampur SSA comprises the two revenue districts of Udhampur and Doda. Leh SSA comprises Leh and Kargil revenue districts, and had an equipped capacity of 10,384 lines and 6,833 working connections as on 30/11/2001. It had 32 electronic exchanges of which 28 have been provided with STD facility. The Kashmir SSA comprises six revenue districts of the state, namely, Srinagar, Anantnag, Pulwama, Badgam, Baramulla and Kupwara. There were 70 electronic exchanges in the Kashmir SSA as on 30/11/2001, with 34 exchanges been provided with STD facility.

Table III.47
Telephone Exchanges: Targets set for 2001-02 & 2002-03
(Numbers)

	2001-02	2002-03
Direct Exchange Lines	80000	44000
Exchange Capacity	69790	52888
Village Public Telephones	2754	2692

Source: Website of Department of Telecommunications, GoI, August 2002.

RURAL CONNECTIVITY

Of the total 6764 villages in the state, 4022 had been provided with telephone connections by April 2001. However, the Village Public Telephones (VPT) increased to 4053 by November 2001 and further to 4070 villages by June 2002. The pace of village connectivity had been slow against the targets set. However, an additional 2692 villages are targeted to be provided connections during 2002-03.

Table III. 48
Status of Village Public Telephones

(As on 01/04/2001)

	Total Number of Villages	Villages with VPTs
J & K	6764	4022
India	607491	408922

Source: Website of Department of Telecommunications, GoI, 2001.

CELLULAR SERVICES

Though BSNL had been provided the licence for providing cellular mobile telephone services in the state, at present these services are not allowed in the state due to security reasons. The centre has however, decided to lift the ban on cellular as well as Wireless-in-Local-Loop (WLL) services in J&K. This is a welcome move since the terrain in the region is such that providing telephone connections to remote villages by laying landlines becomes very difficult. Also, the business community had been asking for this facility for a long time in the wake of poor development of other means of connectivity in the state.

B. Social Sectors

1. WOMEN AND CHILD DEVELOPMENT

INTRODUCTION

Human development as an objective is meant to embrace all sections of society. Accordingly, the Constitution of India guarantees equality to all citizens without any discrimination on the basis of race, sex, caste, creed, etc. Yet the ground reality is that women find it difficult to realize their Constitutional rights despite the commitment to work towards equality and social justice (Rajasthan Human Development Report, 1999).

The status of women and children is almost the same in all the states and union territories, where males dominate and females are accorded low status. Women's work has historically been excluded from accounting schemes of the male-dominated production process and male-constructed development discourse. Human development as a concept is incomplete without understanding the ways in which the 'situations are gendered' – whether at home, school, workplace or in the public sphere (The Madhya Pradesh Human Development Report, 1995).

Although in Indian cultural tradition it is the prime duty of the man to protect the child and woman, this social ethics is not conformed to in actual practice. The means of an average family is generally inadequate for the proper upbringing and care of children and women (Situation Analysis of Children and Women in Jammu and Kashmir, 1989).

Therefore, in order to present a balance-sheet of human development of Jammu and Kashmir, it is necessary to know the existing gender differentials in the state. Against this backdrop, this sub-section attempts to take stock of women's conditions in different settings, which can be analysed under the following heads:

1. Socio-economic security and livelihood issues;
2. Physical security, health and survival issues; and
3. Political security and participation in civil life.

SOCIO-ECONOMIC SECURITY AND LIVELIHOOD ISSUES

Education: Education is one of the key areas of the social service sector. It is a process by which people are subjected to the influence of a selected and controlled environment so that they can attain social competence and an optimum level of development. It allows people to stand on their own feet by enhancing their potential to work for the betterment of their own life and society at large.

It has been observed that the nations who have achieved their literacy targets are developing and progressing rapidly in every field of life as compared to those with a low literacy rate. This was true of Kashmir society where the literacy rate was very low especially among the women-folk. They were educationally very backward and lagged behind the rest of the population. Gradually the government and other organisations have made commendable efforts to improve education.

Education enabled Kashmiri women to secure an emancipated position in economic, social and political fields. As a result, women in the Kashmiri society are actively participating in all public and private sectors, governmental and non-governmental sectors, in the educational sector (as educationists, teacher and lecturers), in courts (as lawyers and judges), in the medical sphere (as doctors) and in other fields as engineers and architects.

The spread of education in the state has made great strides in the past few decades of planned development; considerable educational facilities are available even in remote hilly and backward areas. Table III.49 shows the number of institutions, teachers and students on roll.

Table III.49
Institutions, Teachers, and Students on Roll

Year	Institutions	No. of Students on Roll (Lakhs)			No. of Teachers		
		Male	Female	Total	Male	Female	Total
PRIMARY SCHOOLS							
1995-96	10461	3.71	2.6	6.31	13803	8952	22755
1996-97	10483	5.19	3.74	8.93	13888	8225	22113
1997-98	10366	5.68	4.43	10.11	15401	9351	24752
1998-99	10515	6.45	5.02	11.47	18341	10599	28940
MIDDLE SCHOOL							
1995-96	3082	2.54	1.80	4.85	14300	9572	23872
1996-97	3104	3.05	1.52	4.06	14538	8842	23362
1997-98	3613	2.41	1.64	4.05	15325	9649	24974
1998-99	3507	1.44	1.81	4.31	16803	11373	28176
HIGH SCHOOL/HIGHER SECONDARY SCHOOL							
1995-96	1359	2.50	1.53	4.03	16580	7544	24124
1996-97	1351	2.50	0.53	2.27	16501	7521	24022
1997-98	1431	1.78	1.15	2.93	17207	9350	26557
1998-99	1466	1.86	1.19	3.05	19976	10653	30629

Source: Digest of Statistics, 1999-2000, Government of Jammu and Kashmir.

The table clearly indicates that the number of primary schools went up from 10461 in 1996-97 to 10515 in 1998-99, indicating a very marginal increase of 0.51 per cent. Likewise, the number of students on roll in primary school and number of primary teachers witnessed an increase of 81.7 per cent and 27.1 per cent respectively (from 1996-97 to 1998-99). This shows that the number of students in primary schools has

gone up, but without a proportionate increase in the number of teachers. The number of middle and high and higher secondary schools has gone up, but students on roll have been declining. The number of teachers in middle and high schools has increased, but this does not indicate satisfactory development.

The data available from a number of institutions clearly shows a pyramid-like structure with a large number of primary schools, a few middle schools and very few high and higher secondary schools. This means that every higher order centre has some specialized facilities that are not present in the preceding lower order centre.

The analysis of the gender equation or the enrolment ratio reveals that the female enrolment ratio has remained lower than the males at all the three levels. The male-female difference was maximum at the primary level. Similarly the dropout rate was found to be higher among girls especially after the primary school, as is clear from Table III.49. Here it may be mentioned that the low enrolment ratio and high drop-out rates among girls shows that our social system first deprives the girls of educational facility like other important opportunities later in life (*Situation Analysis of Children and Women in Jammu and Kashmir, 1989*).

Although separate figures for drop-out rates in rural and urban areas are not available, it can safely be guessed that drop-out rates for girls in rural areas will be higher than the urban areas.

Table III.50
Drop-out Rates (1995-96)

Class	Boys	Girls	Total
I to V	53.13	41.48	48.36
VI to VII	50.10	72.40	59.24

Source: Godbole Report, 1998.

Factors responsible for non-enrolment, low enrolment and drop-out rates could be classified into the following:

1. Supply-related factors which include long distances to schools and/or dysfunctional schools.
2. Opportunity Costs including financial constraints, domestic work and participation in household activities, as well as participation in paid economic activity outside household.
3. Lack of interest among mothers to send their daughters to schools.

Income and Employment: The importance of women's economic independence for their overall dignity and even survival is brought out by the fact that there is a linkage between the physical survival of women and their entry into the workforce.

Data for women's occupation are not available for the state of Jammu and Kashmir. However, it can be generalized that due to limited knowledge, skill and resources at their disposal, they are engaged in informal and unorganized sectors where the wages are very low. Low income degrades their quality of life and lowers their standards of living. Their occupational categories are largely determined by their skill, level of education and knowledge. Broadly, their activities are classified under two heads:

- Activities that require less technical know-how;
- Intensive labour-oriented activities.

From these general facts it can be inferred that while females are vital productive workers in the state economy, they are under-valued by society because their work is generally unrecognized and un-rewarded. In addition to this, women lack access to resources and receive a smaller share of what is produced. Moreover, social attitudes view women only as supplementary income earners even when they contribute a large percentage of the family income. Women generally lack bureaucratic know-how that most men are able to acquire to make the system work for them. Thus the condition of females is characterized as "*They play by the rules but lose the game*".

PHYSICAL SECURITY, HEALTH AND SURVIVAL ISSUES

Physical Health: The status of health with respect to indicators like fertility, mortality and morbidity will be discussed in the following section on 'Health'. Here it may be mentioned that women and the girl child tend to get marginalized due to their low visibility and status and due to the fact that their health issues are confined within the domestic sphere.

The spheres of activities of women – social, biological and other related factors make women vulnerable to a myriad health risks. In addition to the specific health risks within each sphere of activity, women appear to be faced with the double or triple burden of risks as they fulfill multiple labour roles in social reproduction. (Social reproduction comprises activities related to functioning of family and household that takes place both within and outside the home).

During the reproductive span, females have to bear a great risk during frequent child births and that too at an early age. In addition, females have to perform a lot of

household chores like washing, cooking etc. This coupled with malnutrition (due to poverty) undermines their health and in the long run increases the morbidity rate among females. The situation becomes worse because the diagnostic and curative facilities acquire a gender bias in terms of use. A combination of external factors and self-neglect among females plays a significant role in increasing the health problems in the following ways:

- Low family income may result in fewer payments for medical care. The immediate consequence is the decreased quality of care and poorer quality of health care.
- The cost of bringing up the female child is comparatively lesser.
- Many areas may face a dearth of female doctors. Females may be shy to visit a male doctor, leading to self-neglect.
- It may also happen that the timings of the doctor may not be suitable for the females. Doctors may be available only for a short time. By the time the females complete their household work and make their journey to the hospital, the hospital may close down. Under such circumstances, a second trip to the hospital may be unlikely.
- It may be impossible for a female to visit a doctor without permission from their family members and she may be reluctant to share her specific problem with the members.
- Many diseases which occur during her lifetime, especially those which occur during pregnancy may be considered a part of the process and may not be reported.

In the light of the above facts, there is an urgent need to empower the women to improve the quality of life among women and children.

Violence against Women: The global campaign for the elimination of violence against women in the recent years indicates that the enormity and the seriousness of atrocities committed against women are being witnessed the world over. Development along with its progressive changes in personal lifestyles, living standards, varied economic growth caused by urbanization and changes in social ethos contribute to violent attitudes and negativity towards women which has resulted in an increase in crime against women. Such incidents are a matter of serious concern and it is necessary so that the women of India get their rightful share and live in dignity, freedom, and peace, free from crimes and aspersions. The battle against crime against women has to be waged by the various sections of society through campaigns and various programmes with social support along with legal protection safeguards and reforms in the criminal justice system (*Crime in India, 1999, National Crime Records Bureau*).

Despite all safeguards, the women in our country continue to suffer due to lack of awareness of their rights, illiteracy and oppressive practices and customs.

Crime rate in India and Jammu and Kashmir

According to the IPC, crimes against women are classified under the following heads:

1. Rape
2. Kidnapping and abduction
3. Dowry Deaths
4. Torture (Physical and Mental)
5. Sexual harassment
6. Importation of girls up to 21 years of age.

The state and UT-wise incidence of all the cognizable Indian Penal Code (IPC) crimes (violent and non-violent) along with the rank of criminality.

Table III.51
Rate of IPC Crimes in States during 1999

All India 178.9

State with crime rate (total IPC crimes) above all-India average			States with crime rate (total IPC crime) below all-India average		
S.No	State	Rate	S.No	State	Rate
1	Rajasthan	317.7	1	Jammu & Kashmir	174.7
2	Kerala	294.4	2	Himachal Pradesh	167.8
3	Madhya Pradesh	261.3	3	Goa	166.0
4	Gujarat	261.1	4	Andhra Pradesh	160.5
5	Mizoram	238.7	5	Assam	143.5
6	Tamil Nadu	237.2	6	Orrisa	141.4
7	Karnataka	214.1	7	Sikkim	141.4
8	Haryana	202.2	8	Bihar	120.2
9	Maharashtra	196.2	9	Uttar Pradesh	103.6
10	Arunachal Pradesh	193.7	10	Manipur	100.0
			11	Punjab	86.7
			12	West Bengal	84.9
			13	Tripura	84.6
			14	Nagaland	75.7
			15	Meghalaya	72.2

Source: Crime in India, 1999, National Crime Records Bureau, Ministry of Home Affairs.

The table clearly indicates that the crime rate is maximum in Rajasthan (317.7) and minimum in Meghalaya (72.2). There are 10 states which lie above the national average of 178.9, and 15 states below the national average. Jammu and Kashmir ranks 11th among the states and its rate is just below the national average (174.7)

The incidence (I) and rate (R) of cognizable crime (IPC) under different crime in India and Jammu and Kashmir is shown in Table III.52.

Table III.52
Incidence and Rate of cognizable crime (IPC) under different crime 1999

Crime	Jammu and Kashmir		India	
	Incidence	Rate	Incidence	Rate
Kidnapping & Abduction of women and girls	473 (2)	4.8	14934 (4)	1.5
Rape	170 (4)	1.7	15031 (3)	1.5
Dowry Deaths	6 (6)	0.1	6564 (5)	0.7
Molestation	507 (1)	5.2	31640 (2)	3.3
Sexual Harassment	341 (3)	3.5	8673 (6)	0.9
Cruelty by husbands and relatives	39 (5)	0.4	43669 (1)	4.5
Importation of girls	0 (7)	0.0	1 (7)	0.0
Total IPC Crime	1542	15.8	135771	13.8

Source: Crime in India, 1999, National Crime Records Bureau, Ministry of Home Affairs

Note: Crime Rate is defined as the incidence of crime per 1 lakh population. Figures in parentheses indicate rank.

The data for Jammu and Kashmir clearly indicates that the incidence of molestation has been maximum (507) followed by kidnapping and abduction of women and girls (473). Next ranks sexual harassment accounting for 341 incidents. Rape accounts for 170 incidents. Other crimes account for less than 10. There are very few cases of dowry deaths (6) and there was no case of importation of girls. District-wise incidence of cognizable crime (IPC) during 1999 is given in Table III.53.

Table III.53
District-wise Incidence of Cognizable Crime (IPC)

State/ District	Rape	Kidnapping & Abduction of		Dowry deaths	Molestation	Sexual harassment	Cruelty by husband & relative	Importation of girls	Total Cog. Crime under IPC
		Women & girls	Others						
Anantnag	5	9	49	0	50	7	0	0	883
Awantipore	4	11	3	0	11	2	0	0	377
Badgam	11	33	0	0	22	13	0	0	617
Baramulla	14	82	13	0	110	12	0	0	1850
Border	17	28	0	0	14	15	0	0	1412
Crime Jammu	0	0	0	0	0	0	0	0	16
Crime Srinagar	0	0	0	0	0	0	0	0	14
Doda	13	21	0	0	11	6	0	0	912
Ganderbal	1	29	0	0	24	0	0	0	303
Jammu	6	57	0	6	17	97	26	0	2657
Kargil	0	1	0	0	3	0	0	0	103
Kathua	10	7	2	0	7	10	4	0	692
Kulgam	6	4	29	0	6	3	0	0	437
Kupwara	6	30	4	0	51	3	0	0	803
Leh	1	1	0	0	0	0	0	0	159
Poonch	5	16	0	0	4	3	2	0	551
Pulwama	15	58	0	0	31	7	0	0	749
Railways	0	0	0	0	0	1	0	0	22
Raiouri	15	21	0	0	6	6	0	0	770
Srinagar	16	50	42	0	110	149	0	0	2379
Udhampur	25	15	8	0	30	7	7	0	1448
Total	170	473	150	6	507	341	39	0	17103

Source: Crime in India, 1999, National Crime Records Bureau, Ministry of Home Affairs.

These figures clearly indicate that women are victims of violence from their husbands and relatives as well as from outside the family, suffering from physical brutality as well as economic insecurity. Apart from the violence faced by women from within the family and from criminal elements outside, many women are also victims of systemic violence from within their own communities.

All the evidence points to the seriousness of the atrocities committed against women. Development along with its progressive changes in personal lifestyle, living standards and economic growth, caused by urbanization and changes in the social ethos contribute to a violent attitude and behaviour towards women. Such incidents are a matter of serious concern and their containment is a necessity so that the women of India attain their rightful share and live in dignity, freedom, and peace and free from crimes and aspersions.

A woman in terms of status and prestige is evaluated as one lacking in courage, who is submissive and docile and has to obey the orders of her husband and in-laws. Against this background, females and children become the target for all forms of violence. Consequent to discrimination in all spheres of life, females are subjected to both physical and mental trauma and anguish. Above all the stress of domestic work leaves them with little time for self-awareness or their psychological and physical needs. In addition, females bear the brunt of violence due to the following reasons:

1. Domestic violence within the four walls of the house in the absence of a witness. Even those who witness turn a blind eye to it, treating it as a purely personal and private matter that has to be sorted out within the family. These attitudes go a long way in legitimizing violence.
2. Reluctance among females to report cases due to fear of retaliation by their husbands or other members of the family and exposure of family quarrels in the community.
3. Many females find it difficult to register cases of violence against their husbands given their financial and social dependence on them.

Thus it may be inferred that violence against women is as common in Jammu and Kashmir as in other states.

POLITICAL SECURITY AND PARTICIPATION IN CIVIL LIFE

A study from Kashmir University revealed that when it comes to contesting of elections, women of Kashmir are nowhere in the picture. Today's educated women do not seem to be interested in joining politics. Kashmiri women looking for a career or a profession hardly look at politics as a desirable choice.

The mass political participation of women in early period of the 1930s in the Freedom movement nurtured a few prominent women political leaders and activists who highlighted the problems of women. This was the first time that the women of Kashmir participated in an organised manner. The women of Kashmir have been participating in the elections since then.

In a survey conducted by Kashmir University, nearly 68 per cent of the respondents were of the opinion that women should take part in politics and contest elections, holding the view that the “hands which rocks the cradle rules the world”. Women have potential and can shoulder responsibilities in a more systematic way, can work better for problems related to women, resulting in their empowerment. About 32 per cent of the respondents felt that it was scandalous for to go for politics. Today’s corrupt politics does not suit women who want to progress. Woman should take care of her home and children and not of the nation. Politics being a dirty game is unfit for women and they should keep away from it.

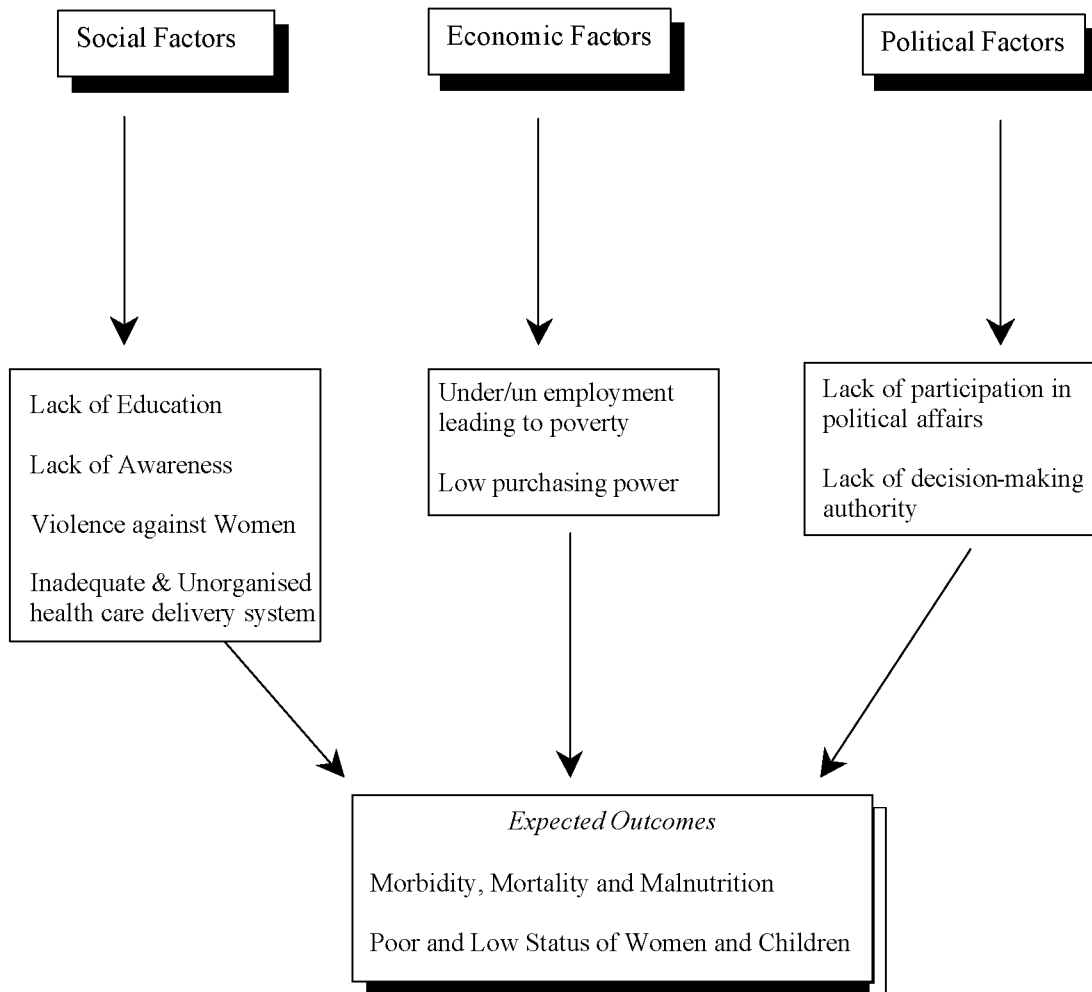
The data further revealed that the working Kashmiri women, on the other hand, were fully aware about political ups and downs. They wanted women to take part in politics and that the avenues for the younger generation be kept open. They were of the opinion that women’s participation in political and social issues is needed for holistic development. Women’s involvement on a significant scale should be made possible but the few working women who were aware about the sordid politics of today wanted that women should remain away from the political scenario.

From the foregoing discussion it may be concluded that women are the major contributors to the survival of the family. In spite of shouldering the entire household activities and childcare responsibilities, social convention and gender ideology often deprives them of material assets. Socially, they are conditioned to a life of dependency. On accounting of the overall backwardness and lack of infrastructure, women and children get marginalized.

The condition of women and the girl child is depicted in the flow diagram in Figure 6. The diagram clearly shows the devaluation of women and girl child in every sphere of life. A woman is never viewed as a person in her own right, but always as someone’s daughter, wife or mother. Women are always discriminated against in access to health, nutrition, education, etc.

Under such circumstances there is an urgent need to empower women and children. In the light of this, several programmes have been started. However, they have not achieved the anticipated positive impact on the status of women. The following section discusses the programme for women and child development.

Fig. 6: Major Components Affecting Women and Child Development



PROGRAMMES FOR DEVELOPMENT OF WOMEN AND CHILDREN

The Integrated Rural Development Programme comprises sub-schemes for poverty alleviation namely IRDP, TRYSEM and DWCRA.

1. *Integrated Rural Development Programme:* This programme was launched in the state on 2 October 1980, with the main objective of enabling identified poor rural families to cross the poverty line by taking up multifarious activities on income generation.

The said programme was taken up by on a 50:50 sharing pattern between state and central government. Under this scheme, subsidy is provided to small, marginal, scheduled castes, scheduled tribes, and educated unemployed youth at different rates. Assistance is provided mainly to families with an annual income below Rs.11000/-.

2. *Training of Rural Youth for Self-Employment (TRYSEM)*: TRYSEM, a supportive component of IRDP started as a centrally sponsored scheme on a 50:50 basis. It aims at providing technical and entrepreneurial skill to rural youth belonging to families identified below the poverty line to enable them to take up income-generating activities.
3. *Development of Women and Child in Rural Areas (DWCRA)*: This scheme was started in 1983-84 with the primary objective of focusing attention on women members of rural families below poverty line and providing them with opportunities for self-employment on a sustained basis.

Jammu and Kashmir Women Development Corporation* was incorporated in the year 1991 under the Companies Act of 1956 with an authorized share capital of Rs.5.00 crore. It started functioning w.e.f. the year 1994. The Corporation is implementing a number of developmental schemes for the socio economic upliftment of females with special focus on the upliftment of women in families below the poverty line and those women belonging to minorities, backward and other classes.

The Corporation arranges grant-in-aid, loans, etc., for eligible females/NGOs/societies working for the welfare and development of women from government of India/Apex Corporations through their various schemes. The Corporation has trained a number of women in different traditional and non-traditional trades, besides providing soft loans to various women for setting up their own income- cum-employment generating units. Jammu and Kashmir Women's Development Corporation has also done a commendable job. A brief description of the activities/schemes undertaken by the corporation is as follows:

- (i) *Norwegian Agency for International Development (NORAD)*: This is a centrally sponsored 100 per cent Grant-in-aid scheme under which training-cum-production-cum-employment generation centres are set up in different parts of the state of Jammu and Kashmir. The training is being imparted to women in different traditional and non-traditional trades; so far the Corporation has trained 5434/

* Source: Report obtained from the office of Jammu & Kashmir Women's State Development Corporation.

10,000 (2002) women through this scheme. After the completion of the training period, trainees work either with NGOs or have set up income-generating units by taking loans from Corporation. The proposal for setting up training-cum-employment generating units is submitted to the Government of India, Ministry of Human Resource Development Department of Women and Child Development after receipt of the same from reputed NGOs. The sanctions and grant-in-aid is received from Government of India and the same is released in favour of the NGOs for setting up of training centres which are monitored by the Corporation till their completion. The Corporation has recommended 95 proposals to Department of Women and Child Development, Government of India out of which 61 proposals have been considered in the Project Sanctioning Committee (NORAD). The training centres are functioning. The remaining proposals will be sanctioned in the next Project Sanctioning Committee meeting and are expected to receive Rs. 2.50 crore as grant-in-aid during the current financial year under this scheme.

- (ii) *National Minorities Development and Finance Corporation (NMDFC)*: The government of India has identified five communities, viz., Muslim, Buddhist, Sikh, Christian and Zoroastrians as minorities at the national level on the basis of the population census.

The National Minorities Development and Finance Corporation through the J&K Women's Development Corporation which is its channelising agency provides long-term loans at a concessional rate of interest to assist the poor segment of the minority population for setting up of income-cum-employment generating units. The Corporation lifts loans from NMDFC at a rate of 4.5 per cent rate interest and disburses the same to the beneficiaries among minority communities at 7 per cent. Till the end of March 2001, the Corporation had received an amount of Rs. 379.065 lakh from NMDFC out of which an amount of Rs. 379.065 lakh had been disbursed to 400 beneficiaries (for the financial year 2002-03). An amount of Rs.2 crore has being proposed. The loans are being secured according to the norms already fixed, i.e. 85 per cent will be contributed by National Minorities Development and Finance Corporation, 10 per cent by J&K Women's Development Corporation and 5 per cent by the beneficiary. The Corporation has contributed an amount of 46.00 lakh (amount met from share capital). During the current financial year, according to the action plan of the National Minorities Development and Finance Corporation, Rs.23.50 lakh would be contributed by the J&K Women's Development Corporation which needs to be earmarked.

- (iii) *Rashtriya Mahila Kosh (RMK)*: The State Women Development Corporation has been declared as channelising agency of Rashtriya Mahila Kosh for the women of

J&K state. This is also a centrally sponsored loan scheme. Under this scheme, micro loans are provided to the poorest of the poor women of the target group, i.e. those below the poverty level at an interest rate of 9.5 per cent as against an interest rate of 8 per cent charged by Rashtriya Mahila Kosh. The corporation could charge interest at 12 per cent per annum from the beneficiaries but keeping in view the economic condition of the poor women artisans of the state, the Board of Directors has fixed the same at 9.5 per cent. During the year 2002-03, the corporation proposed to lift and disburse an amount of Rs. 10.00 lakh to cover sixty women. An amount of Rs. 0.50 lakh needs to be earmarked as monitoring charges.

- (iv) *Support to Trainees and Employment Programme (STEP)*: The scheme envisages support to rural women for better training in socio-economic developmental activities in the agriculture and allied sectors, viz., dairy, handloom, etc. Under this scheme, the Government of India provides funds in the pattern of 90 per cent: 10 per cent per beneficiary to impart training to a cluster of minimum five hundred beneficiaries of a particular area to take up income-cum-employment generating activities. In the current year, the corporation has submitted a proposal for Rs. 2.50 crore to the Government of India through the administrative department in dairy development, handlooms, handicrafts and mushroom cultivation. The corporation has already got the area surveyed through the Department of Management and Studies, University of Jammu. After receiving the sanction for the same from Government of India, the Corporation intends to take up some more areas under this scheme. An amount of Rs. 25.00 lakh as 10 per cent share will have to be earmarked in this regard.
- (v) *National Backward Classes Finance and Development Corporation (NBCFDC)*: This is also a centrally sponsored loaning scheme wherein the loans are being lifted from the apex corporation, viz., National Backward Classes Finance and Development Corporation for assistance to the women of the backward and other classes. An amount of Rs.1 crore stands allocated to J&K Women's Development Corporation during the year 2002-2003; the corporation intends to lift the said amount as the case for government guarantee is under process in the administrative department. For this purpose an amount of Rs.10.00 lakh (10 per cent contribution) will have to be earmarked. The corporation has also released an amount of Rs.5 lakh under the micro financing scheme. The amount is to be disbursed through NGOs.
- (vi) *National Handicapped Finance and Development Corporation (NHFD)*: Under this scheme, the apex corporation, viz., National Handicapped Finance and

Development Corporation provides loans for handicapped beneficiaries; the Corporation has already been declared as the state's channelising agency for receiving and disbursing the loans to the target groups and the Corporation proposes to lift and disburse an amount of Rs. 50 lakh. The government guarantee stands issued and an amount of Rs.5 lakh needs to be earmarked for this purpose.

(vii) *Swyamsidha Women Empowerment Programme (SWEPP)*: The J&K State Women's Development Corporation has been appointed as a nodal agency by the administrative department, viz., Social Welfare Department Government of Jammu and Kashmir to implement the scheme of Swyamsidha Women Empowerment Programme (SWEPP) in J & K. It is an integrated scheme for women's empowerment and is basically designed for formation of women into Self Help Groups (SHGs) wherein awareness and confidence will be generated in them both economically and socially regarding their status, health, nutrition, education, sanitation, legal rights, upliftment, control over resources, saving habits, access to micro credit, involvement in local-level planning, etc. In this connection, the J&K State Women's Development Corporation proposes to cover one block of each district covering thirteen out of fourteen districts of J&K. In each block 100 SHGs will be formed. Training centres under NORAD will also be set up. Women will also be benefited in other schemes implemented by J&K Women's Development Corporation. It is proposed to implement the scheme after receipt of funds from Government of India. Under this scheme, funds will be allocated by Government of India under State Action Plan and Rs. 14.20 per Block (excluding Rs.4.00 lakh as Self Help Group contribution).

(viii) *Exhibition/Marketing Assistance/Sales etc*: The Corporation has participated in exhibitions and craft melas at different places within and outside the state in the previous year to provide marketing exposure to the women artisans, beneficiaries of NMDFC and trainees of the NORAD scheme. Up to now, the Corporation has been assisting NGOs and cooperative societies for participation in craft melas and exhibitions. The corporation also proposes to hold an exhibitions in Jammu & Kashmir in which northern States shall also participate. This will provide a marketing outlet for NMDFC beneficiaries who are being provided with loans by the corporation.

During the year 2002-2003, the corporation proposed to spend an amount of Rs.0.30 lakh, that is, 10 per cent, of its total grant, to be received from the NMDFC for holding an exhibition in the state and Rs.2.70 lakh for exhibitions outside the state. Thus a total Rs.3 lakh needs to be earmarked.

(ix) *Awareness Generation Camps:* The Corporation has been providing loans to the beneficiaries under different schemes and there has been quite a good response for these schemes. However, some of the beneficiaries who had taken loans have become defaulters. The Corporation has initiated legal action against them and that has given fruitful results and the cost of legal expenses ultimately has to be debited to the defaulting beneficiaries. Since the beneficiaries are living below the poverty level and it is not fair that they should be overloaded by such debts in these cases, awareness is required to be created among the women beneficiaries for which the camps/seminars and meetings need to be arranged. During the year 2002-2003 the Corporation proposed to conduct these camps in different parts/districts of the State with a financial estimate of about Rs.1.00 lakh. Earlier, the Corporation was spending money from the Mahila Samridhi Yojna but according to the latest communication received from the Government of India, the amount released for the purpose of awareness camps is to be refunded to the Government of India as the scheme has been withdrawn by them.

*Ladakh:** The Women's Alliance of Ladakh (WAL) was formed in the early 1990s to counter the negative consequences of development and the increasing participation of Ladakh in global economy. This has been set up in the light of new economic pressures in Ladakh that have marginalised women. Women tend to be left behind on the farm when men and young people flock to the city for jobs or education. Consequently, women's decision-making power decreases while their workload increases.

WAL is a rural alliance whose primary aim is to encourage respect for women, farming and Ladakhi culture in general. The core representatives meet every month to discuss the problems raised by Ladakh's development and to strengthen and empower each other through group decision and group action. This has promoted deeper interaction between women in villages throughout Ladakh, and has further raised awareness of the implication of modernisation for Ladakhi culture, agriculture and the role of women.

With this perspective, the main aims and objectives of WAL are:

- To maintain respect for the ethical and spiritual values on which Ladakhi culture is based.
- To promote development in harmony with the aforementioned values, benefiting the entire community without harming nature or the heritage of future generations.
- To encourage a respect for Ladakhi culture and to counter the embarrassment that many young people feel about Ladakhi food, dress, language, song and dance.

* Report obtained from the office of Women's Alliance of Ladakh, Ladakh.

- To highlight the importance of agriculture for Ladakhi economy and to counter the notion that farming is an inferior occupation; also to protect indigenous knowledge and seeds and warn against the dangers of cash cropping, chemical fertilizers, pesticides and hybridized seeds.
- To maintain respect for local knowledge, crafts and practical skills.
- To affirm and support extended families and strong communities.

In the new economy, political and economic power is even more centralised, as decisions affecting everyday life are made in remote government departments and corporate offices. The few jobs available are generally filled by men, while the women are left behind to do the agricultural work that was once shared by both. Even as their workload doubles, women's status has fallen: the traditional Ladakhi farmer, once the backbone of the economy, is increasingly considered backward and irrelevant, an impediment to progress. In addition, women who tend to have less formal schooling than men are looked down on as illiterate and ignorant.

Faced with such widespread challenges, WAL aims to promote development in harmony with the ethical and spiritual values based on Ladakhi culture. Such development should benefit the entire community. The broad programme of activities includes:

- Encouraging continuation of shared labour. Until recent years, the ploughing and harvesting was done on a co-operative basis, with families taking helping one another. Cash economy is breaking down this co-operative system, creating the need for expensive, hired labour. This imposes a financial burden on the household and threatens the viability of farming in Ladakh.
- Supporting and encouraging locally adapted agricultural methods, while at the same time raising awareness about the hazards of large scale industrial agriculture. In contrast to Ladakh's historically low input, flexible and ecologically sustainable farming methods, the forms of agriculture which are increasingly being promoted require even larger amounts of capital, fertilizers and chemical pesticides. A seed bank has also been instituted to preserve indigenous seed exchange programme and seed varieties adapted to Ladakh's unique ecology. New vegetable varieties have also been introduced to broaden the range of locally produced foods and to facilitate a subsidiary cash income through the sale of vegetables.
- Providing information regarding the nutritional superiority of locally grown fresh organic foods over imported mass-produced packaged foods, which have been transported over great distances at high environmental costs. The trend among the younger generation on processed food is particularly disturbing. WAL advertise messages by educating mothers and children about the benefits of locally grown food.

- Encourage members to retain their cultural identity by continuing to wear the unique Ladakhi dress. The rejection of Ladakhi clothing, particularly by the younger generations, is a disturbing symptom of the embarrassment and a sense of inferiority Ladakhis feel about themselves and their culture. WAL efforts are to make the community aware about the importance of wearing Ladakhi dress with pride.
- Organising educational programmes for Ladakhis and Westerners. Six Ladakhi women have been sent to the West to experience directly the negative aspects of western style of economic development. A cultural exchange programme brings Western tourists to Ladakh to stay with and get to know a local farming family.

Since the recommendations to improve the status of women and children is more or less the same as that of health, the combined suggestions have been given at the end of health section.

Box 1: Empowering Women for Improved Health and Nutrition

The complex socio-cultural determinants of women's health and nutrition have cumulative effects over a life-time. Discriminatory childcare leads to malnutrition and impaired physical development of the girl child. Under-nutrition and micronutrient deficiency in early adolescence goes beyond mere food entitlements to those nutrition-related capabilities that become crucial to a woman's well-being, and through her to the well-being of children. The positive effects of good health and children on the labour productivity of the poor are well documented. To the extent that the women are over-represented among the poor, interventions for improving women's health and nutrition are critical for poverty reduction.

Impaired health and nutrition is compounded by early child-bearing, and consequent risk of serious pregnancy related complications. Women's risk of premature death and stability is highest during their reproductive years. Malnutrition, frequent pregnancies, unsafe abortions, RTIs and STIs all combine to keep the maternal mortality ratio in India among the highest globally.

Maternal mortality is not merely a health disadvantage, it's a matter of social injustice. Low social and economic status of girl and women limits their access to education, good nutrition, as well as money to pay for health care and family planning services. The extent of maternal mortality is an indicator of disparity and inequality of access to appropriate health care and nutrition services throughout a lifetime, and particularly during pregnancy and childbirth, a crucial factor contributing to high maternal mortality.

Programmes for safe motherhood, universal immunization, child survival and oral rehydration have been combined into an Integrated Reproductive and Child Health Programme, which also includes promoting management of STIs and RTIs. Women's health and nutrition problems can largely be prevented or mitigated through low cost interventions designed for low income settings.

The voluntary non-government sector and the private corporate sector should actively collaborate with the community and government through specific commitment in the areas of basic reproductive and child health care, basic education and in securing higher levels of participation in the paid workforce for women.

(Extracts from National Population Policy, 2000)

2. HEALTH

INTRODUCTION

Good health is the basic objective of any development effort. The concept of human development as defined by UNDP rests on three pillars: knowledge, health and livelihood. Health of the people has been recognized as a valuable national resource and the government's endeavour has been to improve the same and enable them to contribute to the enhancement of the nation's productivity.

Health is defined by World Health Organization (WHO) as a state of complete physical, mental and social well-being and not just avoidance of disease. Physical health implies the perfect functioning of the body (WHO 1948). It conceptualises health as a state in which every cell or organ is functioning at optimum capacity and is in perfect harmony with the rest of the body. Mental health implies not merely the absence of illness but the state of balance between the individual and the surrounding world, and a state of harmony between oneself and others, and co-existence between oneself and others and between the realities of self and that of other people and that of the environment (Sartorius, 1983). Social well-being implies the quality and quantity of interpersonal ties and the extent of involvement within the individual, between each individual and other members of the society and between each individual and the world in which he lives. Thus health is a multi-dimensional and a wholistic concept involving the well-being of the whole community.

STATUS OF HEALTH IN JAMMU & KASHMIR

Initially it was seen that the health status of the people was poor due to prevalence of diseases of various kinds resulting in morbidity and mortality. This was specially so with respect to women and children. The constraints in the improvement of health status of the people included lack of financial resources, dearth of technical staff, and inadequate health infrastructure. Therefore, in order to improve the health status and to achieve the objectives of "Health for All", the Government of India enunciated the National Health Policy in 1983. In response to this, the state government initiated a number of programmes and activities through which health and medical services could flow to the needy and gradually achieve the aims and objectives set under the national policy. As a result, some improvement was seen in the health status of the people.

While this is in itself a positive sign, the rates of change are far too slow for sustainable development and a better quality of life for the people. The state has not been able to keep pace with the national level achievement, in spite of giving due priority to the health sector while distributing state resources. Further, recent disturbances may also have worsened the condition. Consequently, the state till date has a considerable segment of population living below poverty line, with poor infrastructure amongst abundant resources. Under such conditions, women are the most affected, given the burden of child bearing in a patriarchal set up. Poverty coupled with poor social status, lack of access to social development, increases health problems.

Set in this background, this sub-section presents an intriguing picture of the health status in Jammu and Kashmir as measured by fertility, mortality and morbidity indicators. These vital indicators indicate the health status and well-being of the people in society, and give a broad idea of the issues related to health and nutrition.

Table III.54 gives a cursory glance at the health status as measured by three indicators, namely, crude birth rate, crude death rate and infant mortality rate in Jammu and Kashmir.

Table III.54
Comparison of Health Indicators of Jammu & Kashmir with India – 1998.
(per 1000 persons)

HEALTH INDICATORS	J&K	INDIA
CRUDE BIRTH RATE	19.9	26.50
CRUDE DEATH RATE	5.4	9.0
INFANT MORTALITY RATE	45 *	72

Source: Registrar General of India, sample Registration Bulletin.

*Infant Mortality Rate is for three year period 1996-98

It is evident that all three indicators are far below their respective national averages. It may safely be guessed that owing to backwardness in terms of other socio-economic indicators, it may take a few years to achieve further reduction. This shows that a lot more has to be done to improve the health status.

As regards diseases, water-borne diseases including intestinal infections, worm infection, diarrhoea, jaundice, typhoid, etc., are found to be the most common. Other diseases of development, such as, hypertension, heart attack, etc., also exist.

Besides, there are imbalances in the spread of health institutions, physical facilities, equipment and availability of manpower. The health care delivery system is skewed in favour of urban areas. (The health care delivery system has been discussed in detail in subsequent sections).

MEASUREMENT OF HEALTH STATUS WITH RESPECT TO SELECTED INDICATORS

The development status of the region can be measured in terms of some basic indicators over a span of time of space. Literacy and health are the core of human resource development. The most common indicators of health are crude birth rate, crude death rate and infant mortality rate.

I. Fertility Indicators

Fertility indicators such as the crude birth rate, general fertility rate are crude summary measures of the rate at which the population is replacing itself. A more precise picture of fertility can be obtained by examining the age-specific fertility rate (ASFR) and total fertility rate, (TFR) because they are not affected by the age structure (National Family Health Survey, 1993-94).

Crude birth rate is defined as number of live births per thousand population. The number of live births per thousand population in Jammu and Kashmir is shown in Table III.55.

Table III.55
Trends in Live Births in Jammu and Kashmir

Year		No. of Live Births		
		Male	Female	Total
1995	T	85501	72443	157944
	R	47349	39457	86806
	U	38152	32986	71138
1996	T	95171	74442	169613
	R	53400	40778	94178
	U	41771	33664	75435
1997	T	94507	81243	175750
	R	57446	49676	107122
	U	37061	31567	68628
1998	T	98959	85384	184343
	R	59498	51610	111108
	U	39461	33774	73235
1999	T	99027	86207	185234
	R	61022	52907	113929
	U	38005	33300	71305

Source: Registrar General of India, Sample Registration Bulletin.

The trend clearly indicates that the total number of live births has consistently gone up from 1,57,944 in 1995 to 1,85,234 in 1999. This shows that there has been an increase of 14.73 per cent. The reason for this could be an improvement in medical facilities. Likewise the rural and urban areas too show a similar upward trend.

Table III.56 shows the trend in birth rate in India and Jammu and Kashmir.

Table III.56
Annual Birth Rate per Million

Year	Jammu and Kashmir	India
1986	33.40	32.60
1987	30.40	32.00
1988	32.60	31.30
1989	31.10	30.60
1990	31.40*	29.90
1998	19.90	26.50

Source: Registrar General of India, sample Registration Bulletin.

* Figure is based on the average of the previous three years since no half-yearly survey was conducted.

Since SRS was out of order from 1990 to 1998, no information is available for the years 1991-1997.

It is evident from the trend line, that both in Jammu and Kashmir and in rest of India, the annual birth rate has shown a declining trend. In Jammu and Kashmir, the annual birth rate fluctuated between 30 per million and 34 per million. After 1990, there was a sudden decline and it fell to nearly 20 per million, while in India the decline has been gradual.

Another point which emerges from the table is that up to 1990 the birth rate in Jammu and Kashmir had remained only slightly higher than that of India. In 1998, a drastic difference is found between Jammu and Kashmir and India.

A break-up of rural and urban areas indicates that birth rate in rural areas (20.8) has remained higher than in the urban areas (16.1) in 1998. The same pattern is seen in the rest of India too.

Age-specific fertility rate is another important indicator which follows the expected pattern. Fertility peaks in the 15-25 age group. This is true for both rural and urban areas. After 25, a steady decline in the fertility rate is noticed, which reaches very low levels for women in their forties. The same trend could be ascertained in the case of Jammu and Kashmir.

The low fertility rates for women in the highest age groups may be because many women in these ages have been sterilised or are menopausal. Moreover, terminal absence from sexual intercourse is commonly practised once the daughter attains menarche or once any of the children gets married and has a child (National Family Health Survey, 1992-93).

Other important indicators of fertility and fertility preference is given in Table III.57:

Table III.57
Indicators of Fertility and Fertility Preferences 1999

Total fertility rate (for the past 3 years)	2.71
Mean number of children ever borne to women in the age 40-49	4.79
Median age at first birth among women age 20-49	NA
Per cent of births¹ of order of 3 and above	50.30
Mean ideal number of children²	2.70
Per cent of women with 2 children wanting another child	30.90
Per cent never married among women age 15-19	91.50
Median age at marriage among women age 20-49	18.70

1. For births in the past three years. 2. Excluding women giving non-numeric responses.

Source: Population Studies Centre, Jammu and Kashmir.

MORTALITY INDICATORS

This section provides a comprehensive picture of the prevalence of mortality rates. This information is required for demographic assessment of the population and for planning health policies and programmes. Mortality indicators are helpful in identifying the sectors of population that are at high risk and in need of health care service. Some of the important indicators of mortality are as follows

A. Crude Death Rate

Crude death rate is defined as the number of deaths per 1000 people. Among the Indian states, Jammu and Kashmir accounts for only a small percentage of mortality in India and is well below the national average of 9.0.

A comparison of rural and urban areas shows that the rural death rate is higher than the urban, both at the state as well as at the national level.

Table III.58
Death Rate in Rural and Urban Areas, 1998 (Per 1000 persons)

State/Country	Death Rate		
	Rural	Urban	Combined
India	9.7	6.6	9.0
Jammu and Kashmir	5.6	4.6	5.4

Source: Sample Registration System, Registrar General of India.

Table III.59
Annual Death Rate Trends

(Per million)

Year	Jammu and Kashmir	India
1986	9.00	11.10
1987	8.00	10.80
1988	8.30	10.90
1989	7.60	10.30
1990	7.90 *	9.60
1998	5.40	9.00

Source: Registrar General of India

*Figures are based on average of the previous three years since no half yearly survey was conducted. Since SRS was out of order from 1990 to 1998, no information is available for the years 1991-1997.

It is evident that the annual death rate has been declining in both Jammu and Kashmir and rest of India. In Jammu and Kashmir, the annual death rates fluctuated between 5 per million and 10 per million. After 1990 a sharp decline from 7.90 (1990) to 5.40 (1998) is noticed in J&K, while in the rest of India the decline has been gradual.

Another conspicuous feature that emerges from the table is that the death rate in Jammu and Kashmir has remained lower than that of the rest of India. A break-up of rural and urban areas indicates that the death rate in rural areas has remained higher than in urban areas. Higher death rates in rural areas highlight economic deprivation, lack of access to resources and infrastructure that assure survival.

Table III.60
Trends in Number of Deaths

Year	T/R/U	Male	Female	Total
1995	T	16698	12673	29371
	R	11595	9856	21451
	U	5103	2817	7920
1996	T	17930	13761	17393
	R	13120	10076	23196
	U	4810	3685	8495
1997	T	17393	15174	32567
	R	12964	11417	24381
	U	4429	3757	8186
1998	T	19774	17296	37070
	R	12890	11431	24321
	U	6884	5865	12749
1999	T	20039	17552	37591
	R	13743	12188	25931
	U	6296	5364	11660

Source: Directorate of Economics and Statistics, Jammu and Kashmir.

A trend in the number of deaths from 1995 to 1999 shows that the number of deaths has gone up from 29371 (1995) to 37591 (1999), i.e., an increase of 27.98 per cent.

Table III.61
Death rate by Sex and Residence

(Per 1000 people)

State	Death Rate by Sex			Death Rate by Residence	
	Total	Male	Female	Rural	Urban
Jammu & Kashmir	5.4	5.8	5.0	5.6	4.6
India	9.0	9.2	8.8	9.7	6.6

Source: Sample registration system, Registrar General of India.

Note: Estimate of Death Rates for Jammu & Kashmir is not reliable due to inadequacy of returns.

B. Infant Mortality Rate

The infant mortality rate is the most widely used indicator of child survival and a proxy indicator of health status. It measures the number of infant deaths in the 0-1 age group per 1000 live births.

Table III.62
Infant Mortality Rate – 1994 and 1998

(Per 1000 persons)

State/Country	1994	1998
J&K	45	45
India	72	72

Source: Sample Registration System, Registrar General of India.

Table III.62 clearly indicates that Jammu & Kashmir has made absolutely no progress in 1994 and 1998 to reduce the infant mortality rate as it has remained the same in both the years. The break-up of infant mortality rate is evident in Table III.63.

Table III.63
Break-up of Infant Mortality Rate by sex and residence 1998

(Per 1000 persons)

State/Country		Total	Male	Female
Jammu & Kashmir	Total	45.4	39.5	52.1
	Rural	45.5	37.9	54.1
	Urban	45.1	48.1	41.7
India	Total	71.6	69.8	73.5
	Rural	77.4	76.0	78.9
	Urban	44.9	41.5	48.7

Source: Sample Registration System, Registrar General of India.

Note: Estimates of Infant Mortality Rates for Jammu & Kashmir is not reliable due to inadequacy of returns.

A comparison of infant mortality rate in the rest of India with Jammu and Kashmir shows that the IMR in Jammu and Kashmir is far below the national average of 71.6 per thousand. Even the rural-urban and male-female break-up for Jammu and Kashmir is below the national average. This indicates a very positive signal for the state towards reducing infant deaths. The state is as such devoid of problems of infanticide and feoticide.

However, when we analyse the data at the state level, it is evident that there are glaring differences between male-female and rural-urban infant mortality rates. It is clear that the infant mortality among females is still high, especially in rural areas. There are wide variations in male and female infant mortality rate in rural areas as

37.9 for males and 54.1 for females. The difference tends to be lower in urban areas as 48.1 for males and 41.7 for females.

Possible reasons for Infant Mortality Rate

The persisting rate of infant mortality is a manifestation of the inadequate care given to the child during adolescent age, and the mother during pregnancy and after childbirth. The quality of antenatal and post-natal care influences the survival of infants. This is reflected in the high incidence of pre-mature birth as being the significant cause of infant mortality.

Low birth weight including premature birth is one of the major causes for infant mortality as this increases their susceptibility to infection. Respiratory infections, water-borne diseases, poor immunity of neonates and infants, unclassified conditions peculiar to infancy, anemia and unclassified fevers are the major causes of infant mortality, reflecting poor nutritional and hygiene standards. Other causes peculiar to infant deaths are cord infection, congenital malformation and birth injuries. Thus a combination of poor nutrition, and inadequately treated infections causes preventable mortality during early childhood.

The Table III.64 shows the infants deaths, maternal deaths and still births by sex and residence in the districts of Jammu and Kashmir.

A cursory glance at the state-level figures indicates that the total number of infant deaths for Jammu and Kashmir is 2919. This figure is very high compared to the total maternal deaths accounting for 405 and still births accounting for 875.

At the district level it is evident that out of 14 districts, 11 districts have infant mortality rates exceeding 100. In all instances, urban male infant mortality rates are lower than rural female infant mortality rates. Maternal deaths are also found to be lower in urban areas as compared to rural areas. Women who have many children at short birth intervals almost certainly tend to live in rural areas, which raises mortality risks to their children independent of their childbearing behaviour.

Though the figures for still births account for 857, it is found that it is concentrated in just two districts, namely, Srinagar (629) and Jammu (228).

For social and biological reasons, infant mortality is co-related to mother's age at childbirth. It is generally seen that children of both very young and very old mothers are at a higher risk of dying than children whose mothers are in the prime reproductive ages. It may also be noted that infants born to young mothers are more likely to be of low birth weight, which could probably contribute to neonatal

mortality. Similarly, children born to mothers above age 30 are at higher risk of experiencing congenital malformations. The same general trend could be ascertained for Jammu and Kashmir also.

Table III.64
Number of Infant Deaths, Maternal Deaths and Still Births by
Sex and Residence, 1999

District	R/U	Infant Deaths			Maternal Deaths	Still Births		
		Male	Female	Total	Total	Male	Female	Total
Srinagar	T	109	93	202	25	320	309	629
	R	71	60	131	14	0	0	0
	U	38	33	71	11	320	309	629
Budgam	T	124	107	231	31	0	0	0
	R	78	67	145	24	0	0	0
	U	46	40	86	7	0	0	0
Anantnag	T	136	116	252	31	0	0	0
	R	94	80	174	15	0	0	0
	U	42	36	78	16	0	0	0
Pulwama	T	124	104	228	48	0	0	0
	R	82	69	151	31	0	0	0
	U	42	35	77	17	0	0	0
Baramulla	T	144	123	267	33	0	0	0
	R	98	84	182	17	0	0	0
	U	46	39	85	16	0	0	0
Kupwara	T	135	115	250	19	0	0	0
	R	86	73	159	14	0	0	0
	U	49	42	91	5	0	0	0
Leh	T	44	37	81	19	0	0	0
	R	30	26	56	17	0	0	0
	U	14	11	25	2	0	0	0
Kargil	T	32	28	60	15	0	0	0
	R	32	28	60	15	0	0	0
	U	-	-	-	-	-	-	-
Jammu	T	116	99	215	28	125	103	228
	R	76	64	140	15	0	0	0
	U	40	35	75	13	125	103	228
Kathua	T	132	112	244	40	0	0	0
	R	94	80	174	25	0	0	0
	U	38	32	70	15	0	0	0
Udhampur	T	138	118	256	31	0	0	0
	R	99	85	184	16	0	0	0
	U	39	33	72	15	0	0	0
Rajouri	T	127	108	235	34	0	0	0
	R	90	77	167	24	0	0	0
	U	37	31	68	10	0	0	0
Doda	T	134	114	248	29	0	0	0
	R	97	82	179	20	0	0	0
	U	37	32	69	9	0	0	0
Poonch	T	81	69	150	22	0	0	0
	R	51	44	95	15	0	0	0
	U	30	25	55	7	0	0	0
J & K	T	1576	1343	2919	405	445	412	857
	R	1078	919	1997	262	0	0	0
	U	498	424	922	143	445	412	857

Source: Directorate of Economics and Statistics, Jammu and Kashmir.

Specific factors responsible for maternal mortality as identified by various studies are pregnancy wastage caused by abortions and still births. Such foetal wastage prevails more in low-income groups. Much of the pregnancy loss and perinatal mortality (number of still births plus deaths of infants of less than seven days per 1000 live births plus still births during the year) is caused by premature births and malnutrition. Perinatal mortality and still birth results from premature births, itself a consequence of maternal malnutrition, particularly iron deficiency during pregnancy. Another reason for infant and maternal mortality relates to high birth disorders. Frequent pregnancies cause protein malnutrition of the mothers.

C. Other Indicators: Other indicators considered to assess the health status include neo-natal mortality, post neonatal mortality, child mortality and under-5 mortality. These indicators give a clearer picture of the degree of the vulnerability of an infant at different stages of infancy. Neonatal mortality and post neonatal mortality rate are good indicators of availability, accessibility and use of maternal and child health services and use of obstetric care.

Table III.65
Health Indicators

(Per 1000 persons)

Indicators	Jammu and Kashmir	India
Neonatal mortality ¹	40.3	43.4
Post neonatal mortality ²	24.7	24.2
Child mortality	16.1	29.3
Under 5 mortality	80.1	94.9
Infant mortality	65.0	67.6

Source: Towards Equality – The Unfinished Agenda – Status of Women in India 2001.

Note: Post neonatal mortality has been calculated as the difference between the infant and neonatal mortality rates

1. Neonatal mortality rate refers to the number of deaths in the first four weeks per 1000 live births during the year
2. Post neonatal mortality rate refers to number of deaths in the subsequent 48 weeks per 1000 live births in a year
3. Data is for the 5-year period preceding the survey (1998-99)

It is evident from the Table III.65 that all the five indicators are well below the national average. When all the five indicators are analysed, it is found that U5 mortality rate is the maximum accounting for 80 per thousand. This is closely followed by infant mortality rate (65 per thousand). Other indicators account for less than 50 per thousand.

The neonatal mortality rate of 40.3 for Jammu and Kashmir indicates the critical importance of the first four weeks in child survival. Post-neonatal mortality rate of 24.7 indicates that there has been some success in reducing the percentage of deaths in the post neonatal stage. Important causes for neonatal and perinatal mortality are low birth

weight, tetanus, congenital malformation, and birth asphyxia. Among the associated factors are unsafe motherhood, unmet women's reproductive health needs, lack of health care delivery system and other environmental and socio-economic factors.

NUTRITION

The National Nutrition Policy (NNP) has considered poverty in terms of a self-perpetuating vicious circle: causative sequential links being low intake of food and nutrition – under nutrition with attendant nutrition related diseases and infections – faltering growth of children – small body size of adults – impaired productivity – low learning capacity — back to poverty.

According to NNP, the problems of nutrition have to be addressed in terms of an overall development strategy, nutrition being tackled both independently and along with other development issues. Direct interventions are required in the short term for expanding the safety net, reducing the incidence of severe and moderate malnutrition, reaching the adolescent girls, ensuring better coverage of expectant women, fortification of essential goods, popularisation of low-cost nutrition food, and control of micro-nutrient deficiencies among vulnerable groups (*Towards Equality – The Unfinished Agenda, Status of Women in India 2001, Sarala Gopalan, NCW, Government of India*).

Indices of Nutrition Status: The following Table III.66 shows the indices of nutritional status in Jammu and Kashmir. The table clearly shows that more than 75 per cent of women in the state are anaemic. The data also shows the level of undernourishment, both chronic and acute among children, leading to stunting and wasting.

Table III.66
Indices of Nutritional Status

Percentage of women with anaemia ¹	58.70
Percentage of women with moderate/severe anaemia ¹	19.40
Percentage of children aged 6-35 months with anaemia	71.10
Percentage of children with moderate/severe anaemia	42.00
Percentage of children chronically undernourished (stunted) ²	38.80
Percentage of children acutely undernourished (wasted) ²	11.80
Percentage of children underweight ²	34.50

Source: Population Studies Research Center, Economics Department, University of Kashmir

1. Anaemia – haemoglobin level < 11.0 grams/deciliter (g/dl) for children and pregnant women and < 12.0 g/dl for non-pregnant women. Moderate/severe anaemia – haemoglobin level <10.0 g/dl
2. Stunting assessed by height-for-age, wasting assessed by weight-for-height, underweight assessed by weight-for-age.

Undernourishment manifests itself in the stunting of height and wasting of height for both boys and girls, leading to problems of protein energy malnutrition, iron deficiency, iodine deficiency, vitamin A deficiency and low birth weight of children. People in hilly areas have special nutrition problems. (According to the National Nutrition Monitoring Bureau, at the age of five years, there is a deficit of stature of 8 to 9 cms, at the age of 20, of 12 to 13 cms, and at 55 years of age there is a height loss of 2 cms due to osteoporosis).

Adolescents undergoing rapid growth and development are one of the nutritionally vulnerable groups who have not received the attention they deserved. In under-nourished children, rapid growth during adolescence may increase the severity of under-nutrition. Low dietary intake is the most important cause of under-nutrition. Early marriage and pregnancy further perpetuate both maternal and child under-nutrition.

Other major factors responsible for under nutrition in children are poor infant feeding practices, infections due to poor sanitation, lack of safe drinking water and poor access to health care, gender discrimination in breast-feeding, and feeding patterns of baby girls.

MORBIDITY PATTERN AND CAUSATIVE FACTORS IN ILL-HEALTH

According to Prof. Titmus, the termination of an individual's life "is a product of an enormous number of complex and inter-related forces, from government policy in international affairs to the local methods of refuse disposal and from a coal owner's decision to close the pits to a mother's intake of calcium". Narrowing down this diversity to identify, to pinpoint the causes of poor health in the community, two factors are operative, namely poverty and insanitary urbanisation.

When the pattern of morbidity and mortality is examined, it is found that the above statement is meaningful even today. The state has now become a major foci for a combination of diseases of under-development (malaria, diarrhoea, cholera, measles) together with those of development (cardiovascular and other chronic respiratory diseases). Lack of basic facilities leads to proliferation of some disease vectors, which increases the possibility for transmission of infectious diseases. Thus, people live under unhealthy conditions with differential patterns of morbidity and mortality. Besides this, a new pattern of disease is emerging with arrival of AIDS and dengue on the one side and resurgence of once eradicated or controlled diseases, such as plague, cholera, etc. on the other. Failure of municipal services (such as sanitation and garbage collection) to keep pace with the growing population increases health hazards. Likewise, declining access to health care delivery system to keep up with

the growing population may magnify the health problems of those afflicted with the diseases.

In order to have a generalised and simplified picture, the disease pattern has been identified according to the prevailing environmental, economic, social and cultural conditions in which the people live.

Environmental Factors and Health: Outbreak of diseases in Jammu and Kashmir is closely related to environmental degradation traceable to inadequacy of urban civic amenities. Municipal services are either virtually non-existent or woefully lacking. The major components of environment are: safe drinking water, sanitation and garbage disposal and housing quality.

Water: Among the basic amenities, provision of safe drinking water is a primary requirement for good health. However, the process of urbanisation and haphazard growth has degraded the quality of water beyond permissible safety levels. Like some other states, in Jammu and Kashmir too the demand for water outstrips supply; it has affected the comfort and health of the people and has led to the spread of several water-borne diseases. Pipes carrying drinking water are seen immersed in drains full of foul smelling discharge. Since pipes are not maintained properly, they suck in the sewage from these drains.

In many 'problem villages', the shortage of piped potable water forces people to use alternate sources such as rivers, rivulets and streams which are highly contaminated because of unsanitary latrines erected on their banks.

The poor quality of water has resulted in the outbreak of water-borne infection. Nearly 80 to 90 thousand cases of diarrhoea and dysentery are reported monthly between June and September. Even during the low prevalence months they represent a major chunk of disease. During April 2002, six districts of the valley reported 10800 cases of diarrhoea, 900 cases of giardiasis and 1200 cases of typhoid fever. Water-borne jaundice (Viral hepatitis A and B) is endemic in most parts of the state. In addition to a continuous simmering presence, there are seasonal flare-ups of water-borne diseases. True epidemics occur sometimes.

Sanitation and Garbage Disposal: Sanitation is one of the trunk infrastructural network which covers all aspects of waste management without endangering human safety. It includes choked drains, sub-standard toilet facilities, unclean garbage collection centers, etc.

Human excreta and cow dung, which attract disease-spreading organisms, are found littered everywhere. Drains are clogged and open; the lack of an appropriate sewerage system causes every household to discharge sewage out into open. Garbage and refuse are also carelessly thrown around. All organic waste has the potential of breeding germs. The defecation by children, old and sick in fields attracts flies and other insects which transmit disease-producing germs far and wide. At the same time, torrential rains wash off human excreta or cow dung onto the streets and nearby water resources, deteriorating the situation further.

This has resulted in the outbreak of food and water-borne diseases like cholera, jaundice, dysentery and diarrhoea, which are caused due to ingestion of food and water contaminated by flies found in already existing dirty surroundings. Malnutrition often occurs both as a cause and effect of water and food-borne diseases.

Housing Quality: Poor quality of housing, i.e. small and ill-ventilated, is responsible for indoor pollution, resulting in respiratory diseases such as asthma and TB. High density of persons in a room (room crowding) leads to close physical contact between members of the family. Thus even if one member contracts an infection, others become highly susceptible to it. Besides this, smoke produced by the use of cow dung, firewood, etc, for cooking increases the chances of respiratory diseases especially among females.

Economic Factors and Health: Economic factors, mainly poverty, eliminate or seriously limit the chances of securing proper and timely medical attention and good nutritious food. They are directly responsible for malnutrition and various deficiency diseases.

The most widespread disease caused due to malnutrition is anaemia. A child born to an anaemic and malnourished mother is bound to be chronically anaemic. Thus the ailments of infants bear a relationship to their mothers. Any amount of medicines to cure the disease from which the child is suffering does not help much, because in such cases, the disease is only a symptom of causes, which lie in the poor health of the mothers. This relationship is rarely correctly understood by the uneducated. (Mishra, 1970). Therefore, lack of education is also an important contributory factor.

A malnourished population falls easy prey to infection of all kinds. Repeated attacks of infection reduce the resistance of the body. The body reduced to a state of weakness is required to put in several hours of physical labour every day. The net result is that the body is unable to defend itself against various diseases. All these factors also contribute to food and water-borne diseases.

Socio-cultural Factors and Health: Socio-cultural values, conventions and beliefs also influence outbreak of disease. Certain socio-cultural factors act as a hindrance to proper identification and treatment of diseases. The failure to understand the scientific theories of disease causation leads people to neglect disease.

Others: Besides these, lack of personal hygiene, especially during menstruation, unsafe methods of contraception, childbirth and abortion is responsible for various gynaecological problems and reproductive tract infections, such as STDs like chlamydial, gonorrhoea, syphilis. (*Towards Equality – The Unfinished Agenda, Status of Women in India 2001, Sarala Gopalan, NCW, Government of India*)

REPRODUCTIVE HEALTH AND FAMILY PLANNING

Safe motherhood and reproductive and child health: The reproductive and child health programme in India aims at providing pregnant women with at least three antenatal check-ups, two doses of tetanus toxoid vaccine, and iron and folic acid supplementation during pregnancy for the last three months. In addition, the programme encourages institutional deliveries attended by a trained medical professional, and three postpartum visits. Table III.67 shows the state of family planning and reproductive health in Jammu and Kashmir.

Table III.67
Safe Motherhood and Women's Reproductive Health, 1999

Percentage of births ¹ within 24 months of previous birth	24.9
<i>Percentage of births² whose mothers received:</i>	
Ante-natal check-ups from a health professional	83.0
Antenatal check-ups in first trimester	47.9
Two or more tetanus toxoid injections	77.7
Iron and folic acid tablets or syrup	70.80
<i>Percentage of births² whose mothers were assisted at delivery by:</i>	
Doctor	33.8
Nurse/midwife	6.70
Traditional birth attendant	50.0
Percentage ³ reporting at least one reproductive health problem	60.5

Source: Population Studies Research Centre, Department of Economics, Kashmir University.

1. For births in the past five years.
2. For births in the past three years.
3. Among currently married women aged 15-49.

The table shows that 83 per cent received the required components of antenatal care. Nearly 50 per cent received check-ups in the first trimester. This shows that the antenatal check-up facilities are easily accessible and satisfactory. Another aspect which emerges from the table is that only a small proportion of births are attended by trained professionals. About 50 per cent of the births are attended by traditional

birth attendants. This remains a major lacuna in the health system for women. It is clear that women in villages are socially and economically disadvantaged with little or no access to health care facilities, hence are less likely to deliver in institutions or to have health professionals present at the time of delivery.

The major health service for women has been in the area of contraception. Among the modern methods, female sterilization is the most predominant method in use. Other methods, namely, oral pill, conventional contraceptive methods, IUD, condom, etc constitute a very low percentage. The use of these methods has a significant effect on health and about 9 per cent of the users complained of side-effects.

Table III.68
Current Contraceptive Use ¹

(Percentage)

Any method	49.1
Any modern method	41.7
Pill	3.3
IUD	3.0
Condom	4.8
Female Sterilisation	28.0
Male Sterilisation	2.7

Source: Population Studies Research Centre, Department of Economics, Kashmir University

1. Among currently married women aged 15-49

HEALTH CARE DELIVERY SYSTEM*

Jammu and Kashmir state, as in some other developmental fields, inherited a primitive health care system at the time of Independence. Due to difficult terrain and lack of infrastructural facilities, no breakthrough could be made during the earlier times. Thus, there were only a few hospitals and dispensaries, mostly located in the cities and urban areas. As a result, most of the people particularly in rural areas remained dependent on the indigenous system of medicine.

Realising the importance of health, this sector also got priority at the time of annual plan resources distribution. The percentage outlay under health and medical education against total state plan went up from 3.5 per cent during the First Five-Year Plan to 6.56 per cent during the Ninth Plan. Thus various developmental programmes were undertaken to increase the number of health institutions to 3190 by the end of the year, i.e., 2001.

* Details of Health Infrastructure were not available for Lakakh Division, hence the information pertains only to Leh District.

The substantial expansion taking place under the health and medical education sector, was only namesake. Most of these remained devoid of requisite infrastructure like buildings, equipments/machinery, ambulatory services etc. Appropriate medical care facilities were not available to patients.

The network of health institutions throughout the state is given in Table III.69.

Table III.69
Number of Health Institutions

Health Institutions	Numbers
Sub centers	1798
Medical Aid centers	280
Allopathic Dispensaries	250
Primary Health Centres	333
Sub District Hospital/Emergency Hospital	59
District Hospital	14
Associated Hospitals of Medical Colleges	13
Medical Colleges	2
Dental Colleges	1
SKIMS	1
Nursing Training Schools in 2 Medical Colleges	2
Ayurvedic Hospitals	1
Ayurvedic/Unani centers	437

Source: Office of the Joint Director, (Planning) Health, Government of Jammu and Kashmir.

Health Care Infrastructure in Jammu

During the past few decades, the state has been making efforts to expand the existing health facilities in terms of quality, quantity, distribution and integration, to serve the people, in particular the socially and economically disadvantaged. To meet this ambitious goal, a hierarchical system of health unit, i.e., sub-centre, primary health centers (PHCs) and community health centres (CHCs) has been designed to provide various kinds of services. The state is also trying to develop effective referral linkages between PHCs, district and teaching hospitals. In other words, the PHC is expected to play a pivotal role in the total health care system of Jammu and Kashmir. The cornerstones of such an approach are the establishment of health delivery system within the reach of the vulnerable sections and providing vertical linkages with referral services at a higher level, which would lead to a reduction in morbidity and mortality rates.

The infrastructure of medical institutions spread over in various districts of Jammu division ending March 1994 is given in Table III.70

Table III.70
District-wise Break-up of Health Institutions

Category	Jammu	Udh	Kathua	Doda	Rajouri	Poonch	Total
District Hospital	1	1	1	1	1	1	6
Sub-Distt. Hospital	4	3	3	3	2	2	17
Sarwal Hospital	1	-	-	-	-	-	1
Leprosy Hospital	1	-	-	-	-	-	1
Emer. Hospital	-	-	-	3	-	-	3
Prv. H. Centres	28	24	20	21	17	13	123
Sub. H. Centres	3	-	-	2	1	1	7
Rural A.Ds	20	24	20	44	21	18	157
Urban H. Units	8	1	-	-	1	-	10
M.A.C	13	31	18	65	13	11	151
Sub-Centres	244	144	121	134	109	85	837
P.P. Centres	2	1	2	2	2	-	9
Rural P. Centres	-	-	-	-	-	-	-
D.T.C.	1	1	1	1	1	1	6
STD Clinics	-	-	-	-	-	-	-
I.C.U	1	2	1	1	1	-	6
Lep. SET Centers	-	-	-	-	-	-	-
Distt. Hosp. covered Under visual Imp.	-	1	1	1	1	1	-

Source: Draft Ninth Five-Year Plan, 1997-2000, September 1997, Planning and Development Department, Jammu and Kashmir Government, Srinagar.

ANNUAL PLAN 1995-96: DISTRICT COMPONENT:

1. *Primary Health Centres (PHC):* As per the norms laid down by the Government of India, a PHC has to be provided for 20,000 population in hilly and backward areas. As against the requirement of 180 primary centres, only 131 primary health centers were available by the end of 1995.
2. *Sub-Centres:* 837 Sub-centres are functioning in Jammu division which have been established in accordance with the national norms of providing one sub-centre for population of 3000 in Jammu division being hilly and backward.
3. *Community Health Centers:* At present, there are 17 community health centres (Sub-District Hospital) which have been established at tehsil headquarters with specialist services in the disciplines of medicine, surgery, gynaecology, obstetrics. and pediatrics.
4. *Rehbar I Sehat:* Under this scheme, 52 blocks were covered up to end of July 1994. Three blocks were proposed to be covered during 1995-96 and 150 teachers proposed to be trained. The scheme was implemented with 50 per cent Central scheme.
5. *Rural Allopathic Dispensaries:* No new allopathic dispensary was proposed to be established during 1994-95/1995-96.

6. *Urban Health Units:* Ten Urban Health Units were established in different districts and the requested amount proposed for their maintenance during 1995-96.
7. *District Hospitals:* All the district hospitals of Jammu division have a bed strength of 100 beds each, except the District Hospital, Poonch, where the number of beds was raised from 50 to 90 during 1993-94. Adequate staff and equipment is not available in these hospitals and all possible efforts are being made to provide additional staff to the district hospital, viz., ENT specialist, etc. together with other technical and non-technical staff including nursing staff.
8. *Implementation of Plan:* Planning and statistics have been strengthened in order to monitor all states/centrally sponsored schemes effectively.
9. *District Hospital Udhampur:* A new district hospital is being constructed at Udhampur.
10. *District Hospital Kathua:* The emergency Block of a new district hospital at Kathua has come up.
11. *District Hospital Doda:* In view of the shortage of space and other problems in the existing building, it has been decided to construct a new hospital at Doda for which the land has been acquired.
12. *Emergency Hospital at Ramban/Banihal:* The government has planned to establish emergency hospitals at Ramban and Banihal and also upgrade the SK memorial hospital at Batote for providing prompt medical attention to victims of accidents on National Highway.

HEALTH INFRASTRUCTURE IN KASHMIR DIVISION

1. *Ambulances:* Owing to the hilly terrain, the inadequate number of health institutions and non-availability of specialized services, the valley has increased the demand for referral services at the district level. In the light of this a number of ambulances were proposed to be purchased between 2001 and 2003.
2. *X-Ray Plants:* According to the norms fixed, each primary health centre is to be provided with an x-ray plant. There are at present 61 units against a total requirement of 129.
3. *Drugs:* A large segment of the population is living below poverty line and is entirely dependent on government medical institutions. Therefore, the demand for augmenting funds for drugs in the hospital is increasing.
4. *Primary Health Centres:* The existing allopathic dispensaries are strengthened by diagnostic discipline and the institutes are designated as primary health centres.

5. *Sub-district Hospitals/CHCs/Emergency hospitals:* This scheme envisages upgradation of old PHCs to the status of CHCs by providing specialised services like medicine, surgery, gynaecology, obstetrics and pediatrics.
6. *Sub-Centre/IPP-VII:* This is an important scheme which aims at delivering basic health care to the people at the grassroots. The expansion programme of establishing sub-centres has been suspended for the time being. Strengthening and construction programme continues.
7. *Allopathic Dispensaries:* This is an ongoing scheme and the normal activities shall continue to be carried on.
8. *Rehbar-I-Sehat:* This is an alternative scheme of ‘Village health guide’ of government of India that aims at delivering basic health care facilities to the rural masses through school teachers.
9. *District Hospitals:* It covers urban areas and caters to the referral services of the rural areas of the district as well. The main hospitals under this are:
 - JLNH Hospital/Leper Hospital
 - District Hospital Budgam
 - District Hospital Pulwama
 - District Hospital Anantnag
 - District Hospital Baramulla
 - District Hospital Handwara.

Health infrastructure in Leh*

During the past few decades drastic changes have taken place in the health care delivery system in Leh. During the 9th Five-Year Plan, an improved health care system was successfully implemented in all corners of the district. The 9th Five-Year Plan is called the “*Golden Period of Health Department*”. Simultaneous development has taken place in all the four components of the services: preventive, promotive, curative and rehabilitative.

At present there are 192 different high and small health institutions in the district, details of which are given in Table III.71

* Details of Health Infrastructure was not available for Ladakh Division, hence the information pertains only to Leh district.

Table III.71
Health Institutions in Leh

Sl. No	Name of the Institute	Number	Place	Bed Strength	Future Expansion (10 th FYP)
1	District Hospital	1	Leh	150	300
2	S.D.H	1	Nubra	50	2
3	C.H.C	1	Skurbuchan	15	1
4	P.H.C	6		10	10
5	A/Ds	8			
6	M.A.C	63			20
7	Sub centres (Health)	53			
8	Family Planning Centers	2			
9	Sub-centre (FW)	22			
10	Amchi Centre	40			10
11	CHW	30			20
12	RST	129			150

Source: Office of the Chief Medical Officer, Leh.

At present there are services of different specialties, i.e., 8 in S.N.M hospital, Leh, but 11 specialists services shall be available by the 10th Five-Year Plan. The sub-district hospital at Nubra – a 50 bedded centrally heated hospital is likely to be commissioned any time with three specialists. By the end of 10th Five-Year Plan two new SDH at Nyoma and Khalsi shall be commissioned. All the 8 A/Ds shall be converted into Primary Health Centres and five more new PHCs shall be opened during 10th Five-Year Plan.

All the block HQs are provided with at least 2 ambulances each for referring of patients to District HQs and one ambulance is also kept at remote places like Chushool, Turtukan and Skurbuchan to refer patients to block HQs.

Diagnostic facilities at District Headquarters

Besides basic investigation facilities like X-ray, ultrasonography sophisticated equipments like the endoscope, colonoscope, colposcope, blood auto-analyser are also available. Moreover, the services of a woman doctor at the entire block HQs with a proper labour room and basic labour equipment are available.

To provide medical facilities to the needy people of the far-flung and cut-off areas, the department arranges frequent medical camps engaging all specialists.

Under unique system, each Ladakhi has been provided with a health card and his/her health check up is done by qualified doctors. About 99 per cent of the population has been covered under this scheme.

EXPENDITURE ON HEALTH*

The 9th Five-Year Plan for the health and medical education sector was approved by the government of India at Rs. 656.00 crore with the following break-up:

Table III.72
Break-up of Health Expenditure

(Rs.in crore)

Revenue	312.45
Capital	343.55
Total	656.00

As is evident, the revenue component constitutes 48 per cent and capital 52 per cent approximately. However, during the course of the first four years of 9th Five-Year Plan, the position of allocation in terms of revenue and capital has almost over turned due to various reasons. During 2000-2001, out of an allocation of Rs. 105.95 crore, revenue component constitutes 88 per cent of the outlay and capital component only 12.25 per cent. Against the total expenditure of Rs. 125.37 crore during 1999-2000, an amount of only Rs. 105.95 crore was earmarked for the health and medical education sector during the year 2000-2001. As a result of these changes in the Plan resources and subsequent lesser allocation of the capital component, the department has not been in a position to do justice to the ongoing work, supply of drugs and medicines to health institutions, purchase of ambulances, etc., although it did take up a massive construction programme in order to make up the deficiencies in terms of the construction of new buildings and augmentation of accommodation of existing buildings. Presently, the department needs approximately Rs. 198.00 crore for the execution of 85 ongoing projects. In spite of the increase in workload in health institutions, hike in cost of drugs and medicines and awareness about health-related issues amongst public, we are still following the norms devised in the late 1980s.

While projecting the requirements of 2001-02, it was decided to follow the strategy for health care system development as laid down under the 9th Five-Year Plan. However, although no further expansion has been proposed, priority has been given to strengthening the existing infrastructure of health institutions.

* *Source:* Report obtained from the office of the Joint Director (Planning) Health, Government of J&K.

ALTERNATE SYSTEM OF MEDICINE*

Due importance as per guidelines of government of India was proposed to be given during 2000-2001 to Indian System of Medicine (ISM) sector by way of strengthening the research field, identification of herbal and medicinal plants available in the state and establishment of herbal gardens. No expansion has taken place for the past 15 years under the said sector. Even the Unani Hospital, a longstanding commitment of the government, could not be established due to the ongoing financial squeeze.

The Central Government has been requested to come to the rescue of the state in this context and has subsequently released Rs. 4.00 crore, the estimated cost of the construction of the Unani Hospital at Srinagar.

In spite of the fact that medical science has advanced tremendously in various parts of the country and over the whole world, our health institutions, particularly in rural areas, lack basic minimum requirements. They need to be strengthened and fully equipped urgently, to be at par with those in other parts of the country in view of the poverty of the people, lack of communication facilities, and a number of other problems prevalent in the state.

PROGRAMMES FOR IMPROVEMENT OF HEALTH*

There are as many as 12 centrally sponsored schemes extended by the government of India to J&K. The funding pattern varies from scheme to scheme and the maximum schemes are being fully funded by the government of India. The main schemes and their financial and physical achievements for the past five years are as under:

1. *Family Welfare Programme:* This programme had a meagre start in J&K in the year 1957-58 with the creation of two family welfare centres, one each at SMGS Hospital Jammu/SMHS Hospital Srinagar. It was given a fillip by the opening of 15 Rural Family Welfare Centres in the year 1964 and subsequently adopted as a national programme of topmost priority as elsewhere in the country. Initially, it was a target-oriented programme during which the achievement figures in terms of sterilisation operations and users of conventional methods showed a substantial upward trend. However, the programme changed its nomenclature from family planning to family welfare with the objective of converting it into a 'people's movement'. For better results the programme was made more broad-based by

* *Ibid.*

integrating it with a package of services under maternity and child health. The department has been helping to provide immunisation cover to children against the six dreaded diseases of polio, diphtheria, pertussis, tetanus, TB and measles in addition to prophylaxis against the vitamin A deficiency.

The main objective of the programme is to provide better health services and to check the rapid growth of population especially in rural and semi-urban areas. Different policies and decisions were framed to upgrade the programme. The infrastructure of the programme was considerable but it has suffered a great deal during the past decade of turmoil in the state. Irregular flow of funds and paucity of funds from the government of India has affected not only the work but the overall progress of the programme. For the past seven years adequate funds have not been provided by Government of India as per the requirements and proposals of the state government. Due to non-availability of funds, no furniture, drugs and equipments could be purchased. The rent liability of the buildings occupied by the family welfare department has also accumulated to crore of rupees. However, as a remedial measure, various steps have been initiated to gear up the monitoring system of family welfare department within the available resource. The annual physical and financial performance of the programme is given below:

Table III.73
Physical Achievements

Item	1996-97	1997-98	1998-99	1999-2000	2000-2001
I FAMILY WELFARE					
Sterilization (No.)	15388	10766	11471	11040	14863
I.U.D. cut (No.)	9551	9952	9988	13537	12990
C.C.U pieces (No.)	7469	8899	9352	12312	852576
O.P.U cycles (No.)	3031	3119	4503	5270	61050
II IMMUNIZATION					
D.P.T 3 rd Dose (No.)	206409	21207	236449	248032	262028
Polio Dose (No.)	209792	214159	238023	250564	261658
B.C.G (No.)	226592	244574	258536	279115	295789
Measles (No.)	167710	180115	201980	211740	227632
TT/P Women 2 nd & Booster dose (No.)	125429	122003	164107	200910	196742
FINANCIAL ACHIEVEMENTS					
Amount Received (Rs. in Lakh)	7.79	9.98	12.90	21.14	19.14
Expenditure Incurred (Rs. in Lakh)	12.16	12.73	13.74	18.51	19.14
					(Anticipated)

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

2. *National Programme for Control of Blindness:* The national programme for control of blindness was started with central assistance in the state from the year 1977-78 and the scheme was strengthened by integrating World Bank assisted Cataract Blindness Control Project in 1994. According to the National survey conducted in the year 1986-89, the position of prevalent rate of blindness was found to be 1.94 per cent, recording the highest prevalence of blindness in the country. Under the programme, 60 health institutions including primary health centres, community health centres and district hospitals have been asked to provide necessary eye care facilities and conduct cataract operations. However, the state has also extended the programme to 50 health institutions out of state resources. Furthermore, District Blindness Societies stand established in all the 14 districts of the state headed by respective District Development Commissioner. A state programme officer of the rank of Joint Director has also been posted to monitor the programme at the state level. The liability of all the centrally established centres under the programme was to be transferred to the state government by the end of 8th Five-Year Plan. The physical and financial achievements are as follows:

Table III.74
Physical and Financial Performance

Year	Physical Performance	Financial Performance (Rs.in lakh)	
	Cataract Operations performed	Amount Received	Expenditure
1996-97	6332	--	--
1997-98	7109	2.79	20.60
1998-99	10646	7.74	17.47
1999-2000	8314	28.65	33.16
2000-2001	10092	88.50	55.78

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

An amount of Rs. 55.00 lakh was released to the implementing agencies during 2000-01 for the construction of operation theatres/eye wards, besides Rs. 10.00 lakh for furnishing and renovation of operation theatres/eye wards established under the programme. Action has also been initiated for the registration of blind persons in the state and funds have been released for the purpose.

3. *National Leprosy Eradication Programme:* The state falls in the non-endemic zone of leprosy and NLEP is being implemented here since 1963 in accordance with the guidelines of the Government of India. The following infrastructure has been established with state/central assistance during the implementation of the programme. Table III.75 shows the availability of infrastructure.

Table III.75
Availability of Leprosy Infrastructure

Infrastructure	Numbers
Leprosy Hospitals	2
Urban Leprosy Centers	2
Leprosy Control Units	9
Modified Leprosy Control Units	2
Temporary Hospitalisation Wards	2
Survey, Education and Treatment Centres	44
Leprosy Rehabilitation and Promotion Unit	1
Mobile Leprosy Control Unit	14
Leprosy Control Societies (Reg.)	14
Leprosy Colony	1

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir

All the institutions are functional and most of the staff is in position. In spite of disturbed conditions the performance has been encouraging because of efforts made by state government with the assistance of government of India to identify and treat leprosy patients. Details of both physical and financial achievements for the last five years are given below:

Table III.76
Physical and Financial Achievements

Year	Physical			Financial (Rs. in Lakhs)	
	Cases Detected	Cases Treated	Cases Discharged	Amount Received	Expenditure Incurred
1996-97	432	432	323		
1997-98	735	708	975	43.45	8.54
1998-99	888	2810	936	1.36	15.75
1999-00	467	1832	992	31.50	36.00
2000-01	897	1815	1003	18.00	25.36 (Anticipated)

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

However, a lot needs to be done to achieve the goal of below one case per 10 thousand population by the target date which was 2000. The state needs more time for elimination of leprosy and it is recommended that funds be released timely and directly by Government of India to the Administrative Department J & K, as the funds routed through the Finance Department take a lot of time in reaching the implementing agencies.

The modified leprosy elimination campaign launched in the State from 1998-99 proved fruitful for the identification of leprosy patients and has been brought under the purview of treatment in order to ensure success and achievement of target by the desirable time limit. Monitoring of the programme has been streamlined. The

programme is now reviewed at both divisional and state levels, besides by district development commissioners and chief medical officer at the district level. The leprosy hospital at Digyana is being strengthened by augmenting its bed capacity. An amount of Rs. 41.38 lakh stands released for the purpose during 2000-01. It is also proposed to shift the leprosy patients from Leprosy hospital, Nageen Lake to their original place of birth as they have been fully cured now.

4. *National TB Control Programme:* The National TB control programme is being implemented in J&K state in accordance with the guidelines of the Government of India. There are two chest disease hospitals, one each at Srinagar and Jammu which cater to the indoor requirements of the patients suffering from TB in addition to the other diseases of the chest. Besides, there are 10 district TB centres and one TB demonstration centre in the state. Action has been initiated to upgrade three chest clinics of the valley and the TB hospital Kargil to the level of District TB centres. All the centres provide short-course chemotherapy; the quota of drugs for sputum cases is being supplied by government of India and other drugs from state resources.

In order to provide better facilities to patients, a survey is being conducted to ascertain HIV positive prevalence of patients of TB in the state. All the TB patients admitted to the hospital are being examined for HIV positive. In view of the various activities carried out under National TB Control Programme, the physical achievements have been encouraging, as shown in Table III.77

Table III.77
Physical and Financial Achievement

Year	Physical			Financial (Rs. in lakh)	
	Cases detected	Sputum examination	Found positive	Amount received	Expenditure incurred
1996-97	12100	22904	1541	--	--
1997-98	10236	16486	932	21.15	11.75
1998-99	10643	37379	1368	24.45	11.15
1999-2000	10085	44691	1224	35.00	30.42
2000-2001	8844	58008	2011	30.87	30.87 (anticipated)

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

All necessary measures have been taken to ensure timely supply of drugs and medicines to patients and to develop better health care facilities in this context. However, inadequate and late receipt of funds from government of India and the state finance department hamper smooth functioning of the programme. X-ray machines are also required to be supplied to PSC's/CSC's who do not have them. Besides, vehicles are required for the four proposed district TB centers.

5. *National AIDS Control Programme*: Though a full-fledged war against AIDS was started in the 1980s the AIDS Control Programme as a 100 per cent centrally sponsored scheme was initiated in 1992 to arrest and eradicate the disease. An AIDS cell was established under the charge of a Senior Health Officer. In J&K, the programme actually took off in the year 1993-94 when an AIDS control cell was established. The department initiated all necessary measures to control the spread of this dreaded disease. J&K being a tourist state, with a population of soldiers, truck drivers, traders, etc., who are mobile poses problems; therefore some specific steps were initiated by the government.

The State AIDS Control Society, the main agency for the actual implementation of the programme, in the state is headed by the Chief Secretary. The recruitment of staff for office of Project Director is complete. The society is establishing eight new STD clinics at the cost of Rs. 1.00 lakh each in various districts of the state and existing blood banks in Medical college, Jammu, SMGS Hospital Jammu, SMHS Hospital Srinagar and Sher-I-Kashmir Institute of Medical Sciences, Srinagar will be strengthened. Consumables and services of Laboratory Technicians are being provided where these services are not available. The main activities carried out in phase –II of AIDS control programme for the period (1999-2004) are given below:

- Intervention programme for truck drivers through NGOs.
- School AIDS education programme.
- Family health awareness programme.
- Information, education and communication.
- Telephone hotline facilities to be established to have any information on HIV/AIDS on telephone no. 1097 at Jammu and Srinagar.
- Voluntary testing and counselling facilities at Medical College Jammu and SKIMS Srinagar.
- For blood safety programmes, eight new blood banks will be established within an estimated cost of Rs. 50.72 lakh in Rajouri, Poonch, LD Hospital, Srinagar, Bone and Joint Hospital Srinagar, Gandhinagar Hospital Jammu, District Hospital Baramulla, SDH Ramban, District Hospital Anantnag under the programme. Equipments worth Rs. 30.00 lakh will also be purchased for these blood banks.

Furthermore, blood component separation facility unit at the cost of Rs. 30.00 lakh will be established in Kashmir by the society with the help of NACO and World Bank. Thrice Elisa readers have been provided to the Government Medical College, Jammu, SKIMS Srinagar and Command Hospital. As many as 316 Elisa kits have been provided to blood banks. Besides rapid kits to voluntary testing counselling

centers, drugs for opportunistic infection and post-exposure prophylaxis will be provided in medical colleges and SKIMS. Surveillance activities are being undertaken at various sentinel sites in Gandhinagar Hospital Jammu, LD Hospital Srinagar, Leh, SMHS Hospital Srinagar and SMGS Hospital Jammu.

An amount of Rs. 30.00 lakh has been released for various training programmes, because without training NACO – II could not be implemented effectively in the state. A total of 600 doctors and 14000 para-medicos have been trained since May 2000 and this process will continue till the project period ends.

The funds released by Government of India under National AIDS Control have not been spent within the specific time in full. The position of releases and corresponding year-wise expenditure is shown in Table III.78.

Table III.78
Release of Expenditure

(Rs. in lakh)

Year	Amount Received	Expenditure
1992-93	2.80	0.024
1993-94	37.32	1.797
1994-95	12.35	13.930
1995-96	--	14.704
1996-97	25.00	18.323
1997-98	25.00	20.380
1998-99	--	--
1999-2000	50.25	24.00
2000-2001	201.00	152.25

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

As is evident, the funds have not been utilised fully due to late receipt of funds from Government of India and subsequent late release by State Finance Department covering the programme.

6. *National Malaria Eradication Programme:* Prevalence of malaria in J&K state is confined to six districts of the Jammu province and a portion of district Baramulla and Kupwara in Kashmir Valley. It has been observed that Jammu, Kathua and Udhampur have been recording malaria continuously. However, no district is perceived to be a malaria-prone district. In order to bring the disease under control, a task force under the chairmanship of Director Health Services, Jammu has already been set up in the state. Apart from entomological control, surveillance activities are also undertaken in rural areas. The overall activities of the programme include:

- Intensified IEC activities to seek people's effective co-operation and participation in Malaria Vector-Borne diseases.
- Intensified surveillance for early case detection and administrative/radical treatment to malaria fever cases.
- Intensified ante-larval operations in UMPC.
- Intensified vector surveillance to identify factors and to keep watch on their density during the incidence period of the disease.

The state is not in any way lagging behind in any activity, including surveillance. Staff strength sanctioned under the programme has been engaged and staff of NMEP does not suffer on that account.

However, the state is facing some problems with regard to shortage of spray material. Therefore the activities of the NMEP and spraying were restricted to high-risk areas only. Details of spray operations are given in Table III.79.

Table III.79
Spray operations for Malaria Eradication

(Population coverage in lakh)

Year	Target	Achievement
1995	5.38	4.36
1996	12.00	9.17
1997	16.87	11.33
1998	16.99	10.66
1999	4.63	3.29
2000	15.25	

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

As regards the financial aspects of the scheme, the position of expenditure is given in Table III.80.

Table: III.80
Year wise Expenditure and Amount Received

(Rs. in Lakh)

Year	Amount Received	Expenditure
1997-98	14.39	12.79
1998-99	87.45	72.12
1999-2000	103.52	89.26
2000-2001	108.46	99.78

Source: Report obtained from the Office of the Joint Director (Planning) Health, Government of Jammu & Kashmir.

7. *Strengthening Drug and Food Testing Laboratories:* The drug and food control organisation is supposed to ensure availability of standard drugs and pure food articles to the people of the state. In order to achieve the goals under various acts as also the guidelines from the Government of India, wide-ranging activities have been carried out by the organisation. Four laboratories, two each for testing of drugs and food articles have been established in Jammu and Kashmir provinces. These laboratories receive samples lifted by Inspectors of the organisation from the dealers/retailers, and also cater to the needs of local bodies, municipalities, etc. In view of the growing trend of the various diseases, the department tried to strengthen these laboratories but could not succeed due to the financial squeeze prevailing in the state for a couple of years. However, the Government of India has come to the rescue to the state government of extended following CSS programmes for betterment of the public:

- Strengthening of drug testing laboratories.
- Strengthening of food testing laboratories.

Due to administrative and other reasons, the scheme has not taken off fully in the state. However, action has been initiated for its implementation. An amount of Rs. 57.43 lakh has been released by the Government of India against which only Rs. 10.00 lakh stands released by State Finance Department. The said amount has also been placed at the disposal of implementing agencies for purchase of equipments in accordance with the instructions of Government of India.

WOMEN AND CHILD DEVELOPMENT AND HEALTH

Synthesis and Recommendations

The preceding two sections examined several issues that have emerged over the past few decades or so. They are not single self-contained phenomena, but are in many ways inter-linked syndromes. They broadly include the environmental syndrome, economic-debt structure syndrome and infectious disease syndrome. Under these conditions, the most vulnerable group is the women and children who bear the brunt of discrimination in the family and society. Women are accorded low status in society, with glaring gender differentials in all spheres of life – health, education, income, political participation, etc. Under such conditions, females become the target for all forms of discrimination. Consequent to discrimination in all spheres of life, females are subjected to both physical and mental trauma and anguish. Above all the stress of domestic work leaves them with very little time for self-awareness and their psychological and physical needs.

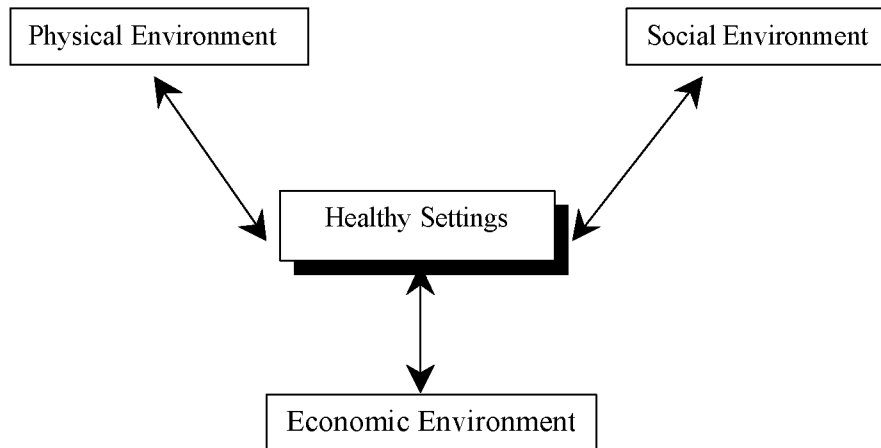
Besides this, the bottled-up feelings resulting from prolonged exposure to the

problems of militancy in the long run lead to psychological problems like depression and mental disorders. Mental trauma and physical injury have severe repercussions on women's psychological and physical health and behaviour. Children are also directly or indirectly affected by adverse socio-economic conditions, causing malnutrition and other health problems. If this situation continues, the region will become, to borrow T.S. Elliot's phraseology, "*A paralysed force, a shape without form and colour, and gesture without motion.*"

It has now been fully recognised that bio-medical and other models have not been very successful in treating diseases and several other health problems such as malnutrition, drug abuse, etc., especially in the low-income groups. The work of Prof. T. Mckeown revealed that improvement in health in UK and other developed countries in the 19th and 20th centuries was achieved not due to advances in medical care but due to improvements in physical, social and economic conditions. D. Achone's (1991) analysis also led to similar findings that advances in health has been associated with improvement in physical, social and economic environment than mere advances in the field of medicine. Thus, in areas where people are free to exercise their choice in housing, employment, food, health, etc., health conditions are more favourable. By contrast, where the choice of the people is restricted owing to various socio-economic factors such as poverty, illiteracy, etc., health is adversely affected.

Thus, the overall condition of women and children depends not only on good health services, but on the supportive environment (Figure 7). Supportive environment refers to the physical, social and economic aspects of the surroundings in which people live and work. This implies that health is influenced by non-medical factors. It follows that health, including the socio-economic conditions, has to be addressed by all sectors of the society. This calls for a distinct public health approach which recognises the role of environmental, social and economic factors in affecting health and the role of community in creating healthy settings.

Fig. 7: Supportive Environment for Healthy Setting



Source: WHO

Therefore the solution lies in catering to the most basic human needs including providing them with all civic amenities to improve their lot, which will in the long run enhance the quality of life of the people and contribute to overall human development. A determined and concerted effort is needed from the government and other organisations to break this vicious circle.

Any effort to eradicate ill-health cannot succeed in isolation. Nor can the problems be tackled in an adhoc manner as this would only distort the magnitude of the problem. The problems have to be tackled very systematically and the task can best be achieved by advanced planning and effective implementation at various levels. Best results can be achieved through integrated development which means that all sectors — social, environmental and economic – should contribute to the development of health and consequently to a healthy neighbourhood. Each sector can provide different sets of solutions for each problem to fit into the range of problems that exist within society. In other words, the long-term solution to solve health problems lies in socio-economic and environmental development. An improvement in these spheres will automatically engender an improvement in the health status of the community.

In view of the fact that the government's assistance is not very forthcoming, it is suggested that the local people form local associations. The associations can adequately look after and implement their own welfare measures. In the light of this, some suggestions have been put forth to improve the health and socio-economic conditions of the community, especially women and children.

1. Water Supply

- A. In order to eliminate water-borne diseases, one of the most significant causes of ill health in the region, it is necessary to provide safe drinking water to its people. Regular water surveillance and water purification through cost-effective methods should be implemented.

- B. Since "*water saved is water made*", every effort should be made to conserve water. Better leak detection methods should be found. Repair of malfunctioning taps and/or replacement of stolen taps can be overcome by making use of local resources including knowledge, management capacity and labour. The concerned association can take most of the work which would otherwise be taken up by external contractors. Investment in better leak detection, maintenance and repair of water system can improve the supply of water to a large extent. This will improve personal hygiene and reduce the occurrence of skin and other diseases.

2. Unemployment

In order to solve the problem of unemployment, it is suggested that cottage industries be set up. For this, females can be given special training in the preparation of products in demand, e.g., candle, envelopes, pickle, jam, fruit juices, etc. However, care should be taken that eatables are prepared in a hygienic way so that they are uncontaminated and can be easily marketed. This will make the females economically self-reliant and independent.

3. Health Education

Informal health education can begin at home, where family members can impart basic education on sanitation, hygiene, etc., to their young children. Educated representative from the local population can approach the target groups and provide them with information on various aspects of environmental sanitation, personal hygiene, disposal of excreta, etc. Information can also be disseminated through mass media by drama, plays, and anti-commercials on negative aspects of sanitation, etc., at peak viewing hours.

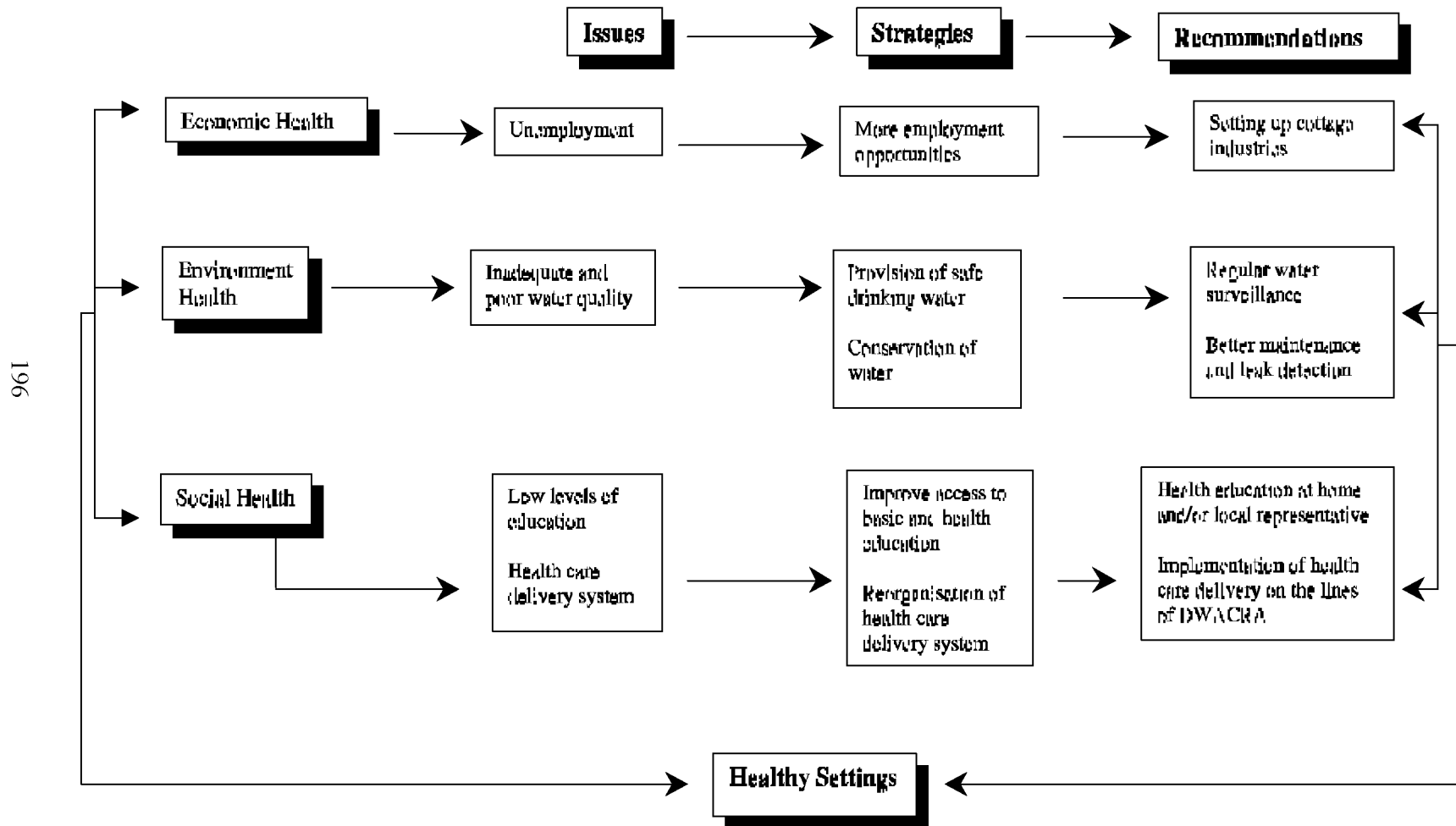
4. Health Care Delivery System

Representatives from the neighbourhood population can be chosen to provide preventive and promotive health care to the people. For preventive health care, the representative may be given training in first-aid and basic knowledge about treatment of minor ailments such as common cold, headache, minor injuries etc. More serious

problems can be referred to qualified doctors. Health care can be promoted on the lines of DWCRA (Development of Women and Children in Rural Areas). Accordingly, a representative would keep track of all the young married women who are eligible for family planning and give them appropriate advice on various aspects of family welfare such as personal hygiene, nutritional requirements, maternal and child health, etc.

The measures suggested are not directly related to health and medicine, because medicine alone is not sufficient to solve health problems. The cause of ill-health lies in a combination of physical, social and economic factors which can be overcome only by the socio-economic transformation of the society (Figure 8).

Fig. 8: Health, Women and Child Development



3. EDUCATION

“Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory.... Education shall be directed to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms.”

– *Universal Declaration of Human Rights, Article 26*

Jammu and Kashmir, one of the 10 educationally backward states of the country, has remained so due to a variety of reasons. At the time of Independence, there were very few educational institutions in the state which were largely concentrated in the major towns. The state of affairs, as far as literacy is concerned, was such that the literacy rate of the state was only five per cent at that time. This low level of literacy forced the state government to take serious note about the existing state of affairs and promote education in the state. Initially, the state government decided to provide free education from the primary to university level.

This effort paid off as the literacy rate started to rise in the years that followed. In 1961 it rose to 11.03 per cent. In 1981 it was 32.68 per cent as against national average of 43.67 per cent and the projection for 1991 was 45 per cent in the absence of census data. According to the latest data available, it stood at 54.46 per cent for 2001.

From time to time, the state government takes steps to improve the education scenario. It provided educational facilities throughout the state to achieve the target of universal elementary education. Various initiatives by the different authorities concerned have led to the achievement of satisfactory results in the state.

PRE-SCHOOL EDUCATION

There is no provision for pre-school education, the informal schooling system provided by the government. But private initiative is there in a very big way; the government's initiative is only limited to Anganwadis and Balwadis for pre-school going children. But in these institutions the emphasis again is only on nutrition and not the overall development of the child. In very few government primary schools, children are enrolled for nursery classes but their reach, once again, is very limited. The private sector provides the pre-schooling facilities to a large number of children. However, they are mostly concentrated in the cities and towns. This is an all-India phenomenon and J&K is no exception.

However, going by the prevalent trend, the government of Jammu & Kashmir (J&K) has decided to stress the need for formulating policies for pre-schooling. According to the Annual Report of Education Department of J&K, “it is increasingly felt that the burgeoning number of nursery schools which are ill-equipped to handle such a vital and delicate concept of education at the pre-primary level need to be given a fresh orientation.” It further states that Board of School Education, with the help of experts, has prepared a plan for pre-school education where emphasis will be on playful activities to promote creativity, sense of participation and originality among children. When this becomes effective, it would become mandatory for all the private pre-schools to register themselves with the Education Department of the state.

PRIMARY EDUCATION

Primary school education is of utmost importance for the growth of a child. It is imperative that all the children are provided with a conducive atmosphere to grow and progress with the system. In fact, the primary level is one level which needs to be very attractive for children, as at this level, the enrolment rate should be very high and dropout rates should be minimal. Many a time it happens that despite having schooling facilities within walking distance, the children do not attend schools. At times the children from socially and economically backward areas do not attend school or drop out at the primary level itself. In such cases it becomes important to implement such schemes that would help in the retention of children in schools and also ensure higher enrolment.

This is a problem in J&K and various steps have been taken to counter it by the state government. One of them is formation of committees at the village level to spread awareness about enrolment in the schools. According to a report of the education department, “village level committees have been given a participatory role in ensuring 100 per cent enrolment and effective management of various activities.” With the sustained efforts of the department, the enrolment ratio saw an increase of nearly 13 per cent within two years from, 1996-97 to 1998-99. Table III.81 gives a clearer picture:

Table III. 81
Enrolment Ratio: I-V

Year	Boys	Girls	Total
1996-97	84	53.1	67.6
1998-99	93.38	66.63	79.95
2000-01*	104.05	80.11	91.79

Source: Annual Report on Educational Profile (School Stream) of J&K for 2000-2001. Education Dept.

*: Selected Educational Statistics 2000-2001, Planning, Monitoring & Statistics Division, Dept. of Secondary & Higher Education, MoHRD, GOI, New Delhi, 2002.

Like ensuring higher enrolment, retaining the children in schools is a major task. The goal of universalisation of elementary education cannot be achieved till the dropout rate is brought down to the minimum level possible. As mentioned earlier, children from certain sections tend to drop out more quickly because of economic as well as social compulsions. To overcome the problem of a high dropout rate, the education department implements a number of incentives like free textbooks and uniforms, merit scholarship, etc. The dropout rate has also come down in the same period when enrolment ratio increased. It saw a decrease of around 12 per cent within a very short span of time. Table III.82 below depicts the picture of dropout rate in the past couple of years.

Table III. 82
Dropout Rate: I-V

Year	Boys	Girls	Total
1996-97	34.4	33.63	34.08
1998-99	24.01	20.20	22.39
2000-01*	34.35	31.67	33.18

Source: Annual Report on Educational Profile (School Stream) of J&K for 2000-2001. Education Department.

*: Selected Educational Statistics 2000-2001, Planning, Monitoring & Statistics Division, Dept. of Secondary & Higher Education, MoHRD, GOI, New Delhi, 2002.

Keeping the universal of elementary education as the thrust area for the coming years, it becomes imperative to have a strong support base in terms of school infrastructure, etc., to achieve desired goals.

In the Five-Year Plans, expenditure on primary education has been increasing. As mentioned earlier, the education department has taken several steps to ensure better enrolment in schools. In the 9th Five-Year Plan, steps were taken by the state government to improve the conditions in primary schools. The opening of new primary schools and upgradation of existing ones is part of it. According to the 9th Plan assessment, the state government had set up 10,000 primary schools but there

were still some places where schools were required. “During 9th Plan it was proposed to cover 1,000 school-less habitations in a phased manner by opening 200 schools every year.”

The effort to improve the conditions in primary schools is not limited only to the opening up of new school buildings but to improving the existing infrastructure. In the past years, i.e., during the 8th and 9th Plans, the emphasis was on converting all the primary schools from single-teacher schools to two-teacher schools. Schools have been opened in the remotest of areas in the state. As per the Sixth All-India Educational Survey, approximately 92 per cent of the population has primary stage schooling facility within a radius of one kilometre and around 86 per cent of the population has access to a middle school within a radius of 3 km.

SECONDARY EDUCATION

Secondary education is another important area of our education system. It is another level where a major chunk of students drop out for various reasons. In most of the areas primary schools are close by but not secondary schools. So, many children, especially girls, drop out after the primary level. It is necessary that secondary schools also be opened at the nearest distance possible. With the conceptualization of an enrolment drive, the ratio for this level also increased within two-three years. Table III.83 below gives a clearer picture:

Table III. 83
Enrolment Ratio: I-VIII

Year	Boys	Girls	Total
1996-97	77.8	51.8	55.5
1998-99	79.79	49.99	65.22
2000-01*	93.04	73.23	83.01

Source: Annual Report on Educational Profile (School Stream) of J&K for 2000-2001. Education Dept.

*: Selected Educational Statistics 2000-2001, Planning, Monitoring & Statistics Division, Dept. of Secondary & Higher Education, MoHRD, GOI, New Delhi, 2002.

Keeping this in mind, the government of J&K also emphasized upgrading the schools or the opening of new secondary schools. But this measure did not succeed much as the minimum infrastructure required for these schools was not provided. In the Ninth Five-Year Plan, the emphasis was not only on upgrading the schools from primary to secondary but also on improving the infrastructure such as better laboratories, libraries, science kits, etc.

The role of teachers in school education, especially at the primary level is very crucial. The state government from time to time also emphasises the performance of

teachers at both primary as well as secondary level. Although the number of teachers has gone up substantially in the past, it is still inadequate. The shortage of teachers in the state forced the state government to open new institutes to fulfill the gaps. During the 8th Five-Year Plan, 14 District Institute of Educational Training (DIETs) were opened to overcome the shortage of teachers at the primary level.

Table III.84 below gives a comprehensive picture of the primary as well as the secondary schools in terms of enrolment, teachers and institutions in the state:

Table III. 84
Institutions, teachers and students on roll

Sl. No.	Year	Number of Institutions			Number of Students on roll (lakh)			Number of Teachers		
		Males	Females	Total	Males	Females	Total	Males	Females	Total
I	PRY. SCHOOLS									
1	1950-51	940	175	1115	0.57	0.07	0.64	1948	214	2162
2	1960-61	2314	545	2859	1.11	0.37	1.48	3654	750	4404
3	1974-75	3798	1979	5777	1.24	0.66	1.9	5123	3060	8183
4	1980-81	4725	2681	7406	1.62	1.06	2.68	6482	4177	10659
5	1986-87	5513	1953	7466	2.28	1.59	3.87	7835	5369	13204
6	1990-91	6200	3042	9242	2.55	1.79	4.34	9835	6605	16440
7	1994-95	7283	3061	10344	3.62	2.63	6.25	13888	8225	22113
8	1998-99	7535	2980	10515	6.45	5.02	11.47	18341	10599	28940
II	MIDDLE SCHOOLS									
1	1950-51	102	37	139	0.14	0.05	0.19	869	309	1178
2	1960-61	461	72	533	0.52	0.13	0.65	2139	273	2412
1	1974-75	1366	476	1842	1.38	0.53	1.91	7268	2994	10262
2	1980-81	1509	537	2046	1.76	0.81	2.57	8779	4449	13228
3	1986-87	1676	520	2196	2.53	1.34	3.87	11447	5644	17091
4	1990-91	1855	583	2438	2.47	1.49	3.96	11515	6484	17999
5	1994-95	2398	626	3024	2.92	1.94	4.86	14538	8824	23362
6	1998-99	2819	688	3507	2.50	1.81	4.31	16803	11373	28176
III.	HIGH/H.S. SCHOOLS									
1	1950-51	48	7	55	0.19	0.02	0.021	835	86	921
2	1960-61	204	46	250	0.70	0.21	0.91	2760	754	3514
3	1974-75	567	147	714	1.58	0.69	2.27	8540	3772	12312
4	1980-81	640	173	813	1.83	0.90	2.73	10010	4858	14868
5	1987-88	852	211	1063	2.52	1.28	3.80	12987	6015	19002
6	1990-91	997	223	1220	2.69	1.51	4.20	14928	6622	21550
7	1996-97®	1171	188	1359	2.50	1.53	4.03	16580	7544	24124
8	1998-99	1212	254	1466	1.86	1.19	3.05	19976	10653	30629

Source: Department of Education.

In the year 1980-81, the number of teachers at the primary level was 10,659 which increased to 16,440 in the year 1990-91. For the year 1998-99, the figure stood at

28,940. The number of students on roll during the same period was 2.68 lakh, 4.34 lakh and 11.47 lakh respectively. The number of teachers in high/higher secondary schools was 14,860 in 1980-81 which rose to 21550 in 1990-91 and in 1998-99 the number stood at 30,629. The number of students on roll for the same years stood at 2.73 lakh, 4.20 lakh and 3.05 lakh respectively.

HIGHER EDUCATION

Better schooling facilities and a higher pass percentage automatically leads to a greater demand for more institutions. Jammu & Kashmir is no exception to this rule. The demand for degree colleges and universities has been increasing in the state. Despite the fact that many more colleges have been opened, they are not able to cope with the ever-increasing demand for more institutions. According to Draft 10th Five-Year Plan, colleges are also facing an acute financial crunch. During the 9th Five-Year Plan no new colleges were opened. In such circumstances, it was left to the existing colleges to accommodate all the students, leading to an additional burden on the already existing precarious infrastructure. To accommodate more students in the colleges, evening shifts were also started. The number of colleges, teachers and students on roll is given in Table III.85

Table III. 85
Number of Colleges, Teachers and Students Enrolled

	1970-71	1990-91	1994-95	1996-97
No. of colleges	14	30	32	32
No. of teachers	897	1,254	1,223	1,427
Enrolment	21,071	23,924	32,263	62,000

Source: Department of Education, J&K.

It is clear from the Table that the number of colleges in 1990-91 was 30 which rose to 32 in 1996-97 while the enrolment rose from 23,924 to 62,000 which is a difference of 38,076. In other words, it was more than double.

In the Draft Tenth Five-Year Plan, opening of five new colleges, within the Plan period, has been proposed to cope with the increasing number of students seeking admission in colleges.

VOCATIONAL/TECHNICAL EDUCATION

Other than these colleges, the state also has Industrial Training Institutes (ITIs) and polytechnics, both private as well as government for vocational education. These institutes provide training courses for electricians, motor mechanics, plumbers, etc. At present there are four government polytechnics in the state, out of which two are

exclusively for women. According to the data available from the Department of Education, their number in the state stands at 37. There are approximately 52 courses available for students pursuing their training from these institutions.

Table III. 86
Number of Polytechnics and ITIs

Year	No. of Polytechnics	Enrolment	No. of ITI's	Enrolment
1970-71	2	160	7	1430
1980-81	2	1520	18	2414
1990-91	4	860	35	2726
1994-95	4	380	37	3102
2000-01*	12	375	37	4455

Source: Godbole Report. (Department of Education, Govt. of J&K)

* Selected Educational Statistics 2000-2001, Planning, Monitoring & Statistics Division, Dept. of Secondary & Higher Education, MoHRD, GOI, New Delhi, 2002.

By looking at Table III.86, one can see that enrolment in polytechnics in 1990-91 came down to almost half of that in 1980-81. The reason for this is related to the militancy factor in the state. Militancy had a direct effect on the enrolment, especially that of girls, which has witnessed a complete scaling down in the past few years.

In the recent past the infrastructure facilities in the polytechnics have been upgraded. New equipment has been provided; computer labs have been fitted with brand new computers with assistance from the World Bank.

As far as ITIs are concerned, a visit to two of them in Srinagar led the team to conclude that they are far behind in terms of using the latest technology. In fact, one of the ITIs visited does not have computer facility despite the fact that it is otherwise one of the better ITIs in terms of performance.

In the Draft Tenth Five-Year Plan, there is a proposal to upgrade the existing infrastructure in ITIs. As mentioned earlier, there is a dire need to upgrade the facilities in these institutes as they have to compete with polytechnics and other private institutions which provide training in latest technology.

ADULT EDUCATION

Although from time to time various steps have been taken to strengthen the literacy rate in the state, it has still remained below the national average. Moreover, there is a significant gap between the literacy of males and females. To enhance the literacy rate in the state, the government has taken many initiatives, one of which is adult education. But, like in many parts of the country, adult education is not very

successful in the state as well. Though no data is available, the general perception is that educators do not take it very seriously.

According to 9th Five-Year Plan document, the state continued the scheme on the old pattern of center-based approach but tried to shift the focus to a total literacy programme. In the draft of the 10th Five-Year Plan, a token of Rs. one crore has been kept for adult literacy programme for illiterates.

GOVERNMENT INITIATIVES FOR IMPROVEMENT OF EDUCATION SCENARIO

As mentioned earlier, the government keeps taking various initiatives from time to time to improve the education system. The government runs many centrally and state supported schemes especially for the backward/underprivileged sections of the society so that they are not deprived of education. The first and foremost step taken by the government of J&K is providing free education up to the degree level.

Special attention is being given to the nomadic population for whom mobile institutions are provided. The children in backward regions, especially those dominated by Gujjars and Bakerwals, are provided with free uniforms, books, etc., to ensure that their poor economic conditions should not become a constraint in getting education. The deserving students at primary and other higher levels are given scholarships, free books, uniform, etc. To fill the gaps created by vacancy for teachers in the remote villages, the state government started a very innovative scheme called Rehbar-e-Taleem under which a local person selected through a committee fills a vacancy and only meritorious candidates are chosen. Later, they are trained with a provision for promotion. The teachers so appointed are also regularised after a period of five years.

Other than this, in the 9th Plan, the stress was also on upgrading the existing infrastructure. Some of the centrally sponsored schemes are*

1. *Provision of Science Kits:* As per norms laid down by the NCERT, kits are being provided to primary and upper primary classes.
2. *Upgradation of Science Labs:* High and Higher Secondary Schools are covered for strengthening of science laboratories by equipping them with latest/modern equipments/kits.
3. *Supply of Library Books:* Text/reference books are provided to Higher Secondary/Senior Higher Secondary Schools.
4. *Training of Teachers:* Necessary training is being given through the State Institute of Education for in-service teachers to develop resource persons.

5. *Strengthening of DIETs:* Construction/renovation of DIETs is being taken care of.
6. *Sarva Shiksha Abhiyan:* A proposal for Pre-project activities has been sanctioned by government of India in all the districts. A survey has been conducted in all the districts where this project will be implemented. As and when findings of the survey are made available by the district, the SSA plan of each district will be formulated.

PRIVATE INITIATIVES

The role of the private sector in education is very important. Though the reach of private sector is limited as compared to that of the government, the former's role cannot be underestimated in providing quality education. According to the Annual Report of the Education Department, around 2000 privately-run schools are operating in the state; there are a significant number of privately-run technical institutes, etc.

However, their participation is limited only to cities and towns. The reach of private schools in villages is almost insignificant. To encourage greater participation of this sector in villages and fill gaps in several areas, the Directors of School Education have been vested with the powers to recognise schools up to the primary level. There is also a proposal to give powers of recognising higher secondary schools to the Directors, School Education, in the future.

However, the picture of private education is not all that rosy. It has its own problems. The proliferation of private institutes without any checks forced the state government to pass a bill so that unwanted growth can be stopped (see Box 2). The Education department is now in a position not only to check but also derecognize some of the institutes that do not fulfill the minimum standards. This is to ensure that students should not suffer because of the profit-oriented policies of private sector where they charge high fees but have inadequate and ill-equipped staff. In spite of all its problems, the private sector is still better placed as compared to the government sector. Not only is their pass percentage higher than that of government schools, they also impart training in the latest technologies. Henceforth, it is important to recognise their efforts and with some government control, they can perform very well.

* *Source:* Brief note on Plan proposal for centrally sponsored schemes prepared by Department of Education, Government of Jammu & Kashmir.

Box 2: New law forces 'education shops' to run for cover

All unauthorised computer institutes, college to face severe action.

The 'Education Shops' running in thousands in Jammu and Kashmir and fleecing students by promising awards of many foreign and prestigious Indian Universities at the door steps may now no more be able to mint money as state government is determined to see their bags packed.

The Jammu and Kashmir state legislatively assembly has passed a bill, The Jammu and Kashmir Private Colleges (Regulation and Control) Act, 2002, on the regulation and control of private colleges imparting education beyond 10+2 without adhering to standard infrastructure and faculty specifications.

The Education Department, after passing of this bill is now armed with the powers to order closure of any institution and slap a penalty of Rs.50,000 if one is found running without its permission. The action on the unscrupulous elements will be taken within a short notice of one month, though after giving the owner a reasonable opportunity to being heard.

According to the Education Minister, the Act "will ensure a proper monitoring of courseware, infrastructure, validity of degrees/diplomas, etc., so that none of these institutions can fleece the innocent students.

However, institutions affiliated with the Universities of Jammu and Kashmir, other private institutions affiliated with Mata Vaishno Devi University, Indira Gandhi National Open University (IGNOU), Department of Electronics Accreditation of Computer Course Society (DOEACS) and other autonomous societies of similar nature have been kept outside the purview of this Act. But these institutions will also have to seek formal permission from the state government.

As per the new Act, franchise institutions sponsored by or affiliated to non-governmental organisations based within or outside the state shall also be treated as unauthorised institutions.

The Education Department is to formulate the rules in consistence with the Act. The notification to this effect is likely to be issued in short time and thereafter will follow a crackdown on the unscrupulous institutions.

Source: The Kashmir Times, 10 April 2002.

Having discussed the education scenario and its present status in the state, it can be concluded that the reasons for illiteracy and educational backwardness in the state are more or less the same as anywhere in the country, viz., non-performance of teachers, unattractive syllabus in schools especially at the primary level leading to

higher drop-out ratio, etc. That is why the state government has started schemes like Rehbar-e-Taleem to improve education.

There is still a lot required to be done in this sphere. There is also a need to look at all the three regions, i.e., Jammu, Kashmir and Ladakh from different perspectives. Each region has unique features that cannot be ignored. All three regions have different mediums of instruction in the government schools. Future policies should be formed keeping this uniqueness in mind. There is also a need to take more strict measures for improvement in education. Recently, the state government has amended its Education Bill where, among other things, it added a clause according to which it is obligatory on the part of the guardian to send their children to school. In case of failing in his duty, the guardian can be fined up to two hundred rupees for the first offence and five hundred rupees for every subsequent offence. Before implementing this rule there is a serious need on the part of state government to sincerely assess whether there is adequate infrastructure available for schoolchildren.

RECOMMENDATIONS

In order to improve the education scenario in the state, several steps are to be taken:

1. J&K has suffered a lot due to militancy that was at its peak for almost a decade. Although the situation is now becoming normal day-by-day, loss of property and other infrastructure has left educational institutions in a very fragile situation. In addition, some of the policies of the state government have proven very costly in the long run. There is a need to rationalize the scheme of providing free education at all the levels in the state. It is essential to reconsider its decision of providing free education at the university level. As higher education is directly related to the employment sector, it becomes imperative to link it with the changing market scenario. The stress should not be on acquiring higher degrees only but on vocational education, which will help a person in the job market. The need of the hour is to learn about the latest technologies available. The government institutes need to be equipped with the latest infrastructure so that students are better trained.
2. School buildings destroyed in remote areas need to be reconstructed immediately. The other major problem is that security personnel are currently occupying many school buildings. For instance, in Jammu alone, the figure is around 500. Such schools should be handed over to school authorities, so that they do not have to run schools in open and/or in rented buildings.

3. The education of girls is still in the doldrums. Their enrolment is low and the dropout ratio is very high. There is need to take serious account of this situation and steps to ensure a higher ratio of enrolment among girls. In many places, there is a dearth of teachers, especially science and mathematics teachers. The existing infrastructure is also not sufficient to handle the pressure. To overcome this problem, adequate infrastructure should be provided. In fact, some of the schools even face shortage of training/learning material like black/white boards, chalks, etc. This situation needs to be rectified.
4. The quality of education in the government sector is very poor. The need is all the more at the primary and secondary levels which are the base for higher education and/or other type of technical training. The private sector should be encouraged but checks and balances from the government need to be in place so that exploitation is minimal.
5. Going by the need of the hour, locally employed teachers should be encouraged to minimize absenteeism in schools, especially in remote areas. The Government of Madhya Pradesh has associated village panchayats with supervision of functioning of schools in the villages. This experiment has met with considerable success and led to sharp reduction in absenteeism on the part of teachers. The Government of J&K could follow their example.

4. URBAN DEVELOPMENT

INTRODUCTION

An urban settlement is a complex entity and its complexity increases with growth in its population and functional specialization. Urban settlements provide space for the various activities of the people during their life cycle. They are the centres for art and culture. They are the mirrors of society. They represent the achievements, way of life, deviation in the form of crime and the contrasts – the riches and poverty, planning and development. As a consequence of the rapid growth of population that large cities are unable to contain, thereby degrading their environment and affecting the quality of life.

Over the past two decades, the number of people living in India has increased from 683 million in 1981 to 1027 million in 2001. As per the Census of 2001, the urban population is 285 million, i.e., 28 per cent of the total population living in urban areas spread over 5545 (5161 towns, 384 UAs) towns and cities. The people living in urban areas have increased from 23 per cent to 28 per cent and towns from 3347 to 5545 between 1981 and 2001. The main reason for this high growth (78.95 per cent between 1981-2001) is the inordinate concentration of capital investments in favourable nodes at the relative expense of a vast majority of other settlements.

The Indian metropolises are growing at an enormous pace. The number of million cities has increased from 12 in 1981 to 27 in 2001, thus indicating more than a two-fold increase. Population density has been increasing and older parts of some of the largest cities are bound to intensify, further leading to the worst kind of urban congestion. The problem of congestion is compounded by serious shortages of infrastructure such as water supply, sewerage, drainage and electricity. Transportation facilities are inadequate. Prices of land have skyrocketed because of which people's access, especially that of the urban poor, to serviced land is extremely limited. The metropolitan planning efforts in India have succeeded only in a limited way in taking some functions away from the core and deflecting them to surrounding centres in big cities. Urbanisation is thus becoming more and more pronounced, therefore it is very necessary to work out a stringent microscale policy to optimize the size of the city populations.

GROWTH IN NUMBER AND POPULATION OF URBAN SETTLEMENTS

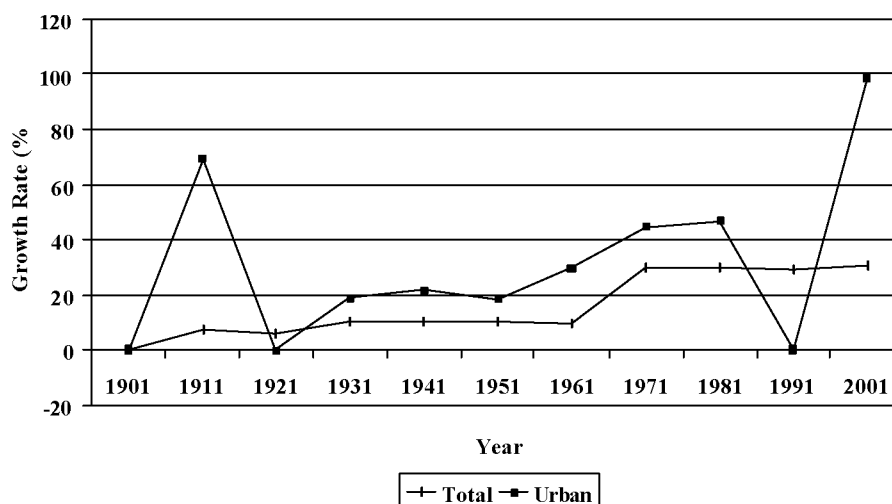
The urban population of Jammu and Kashmir as per the 2001 census is 2505309, which accounts for 24.88 per cent of the state's population. Low level and slow pace of urbanisation in the state can be adjudged from the fact that as late as 1961 more than

Table III.87
Growth of Urban Population in Jammu and Kashmir. 1901-2001

Year	No. of Towns	Population		Per Cent Urban	Growth Rate of Population	
		Total	Urban		Total	Urban
1901	2	2139362	158748	7.42	--	--
1911	45	2292535	268518	11.71	7.16	69.15
1921	29	2424359	267754	11.04	5.75	-0.28
1931	31	2670208	317805	11.90	10.14	18.69
1941	32	2946728	386565	13.12	10.36	21.64
1951	25	3253852	457213	14.05	10.42	18.28
1961	43	3560976	593315	16.66	9.44	29.77
1971	45	4616632	858221	18.59	29.65	44.65
1981	58	5987389	1260403	21.05	29.69	46.86
1991	No Census	7718700	No Census	No Census	28.92	No Census
2001	75	10069917	2505309	24.88	30.46	98.77

Source: Census of India, 1981, & 2001.

Fig. 9
Growth Rate of Total and Urban Population in Jammu and Kashmir, 1901-2001



83 per cent of the population was living in rural areas. Since then, as is clear from Table III.87 urban population has increased. In 1971, 18.59 per cent of the total

population was living in the urban areas and in terms of growth between 1961-71 it was 44.65 per cent which increased to 46.86 per cent in 1971-81. Between 1981 and 2001 the growth rate of urban population was as high as 98.77 per cent.

Unlike the trend in the proportion of urban population, trend in the growth rate shows a different pattern, being characterized by a rapid increase in one decade followed by a decline in the next decade, then a sharp increase. Moreover, the growth rate of urban population has been consistently higher than the growth rate of total population of the state. This gap is due to the gaps both in the rate of natural increase of urban and total population as well as due to the movement of people from rural to urban areas. But the available information is not adequate to ascertain how much of this gap is due to the difference in the rate of natural increase and how much is due to the movement of population.

VARIATION IN SIZE CLASS COMPOSITION OF NUMBER OF TOWNS AND URBAN POPULATION

As revealed in Table III.88, most of the urban population of the state is concentrated in big towns and cities, which is generally the case. Not only is more than 60 per cent of the urban population of the state concentrated in class I towns, but net addition to the population of these towns has been the highest. The proportion of population living in other size class towns is much lower, so is the net addition of urban population to these towns during the past twenty years.

Table III.88
Urban Population distribution by Size Class of towns
in Jammu and Kashmir, 1981-2001

Size Class	No. of UA, Cities, & Towns		Absolute Population 2001	Population addition (1981-2001)	Percentage Addition
	1981	2001			
I	2	2	1578999	749636	60.21
II	--	4	368270	368270	29.58
III	5	7	97543	-50485	-4.05
IV	7	20	251032	174439	14.01
V	20	23	146656	9068	0.72
VI	24	19	62809	-6022	-0.48
Total	58	75	2505309	1244906	100.00

Source: Census of India, J&K 2001.

As indicated by Table III.88, in 2001, there were 75 towns in Jammu and Kashmir of which 2 fall in class I, 4 in class II, 7 in class III, 20 in class IV, 23 in class V and 19 in class VI categories. The two capital cities Srinagar and Jammu have not changed their status and continue to retain their respective position as class I towns since 1961. There was no class II town in 1981, whereas in 2001 the towns

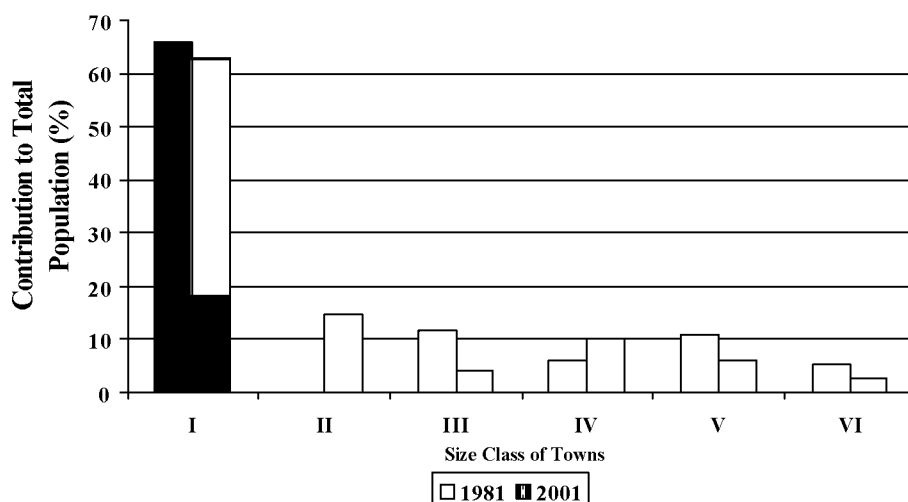
of Anantnag, Baramulla, Sopore and Udhampur attained the status of class II town on the basis of population from their previous position of class III category town. Seven urban areas of Bandipore, Leh, Punch, Rajauri, Bari Brahmana, Jammu C.B and Kathua T.C have qualified as class III category from their previous position of class IV. Similarly 20 towns have been categorized as class IV against 7 towns in 1981 census, while 23 towns have been classified as class V against 20 in 1981, the number of class VI categories town have been reduced to 19 from 24 in 1981.

Table III.89
Urban Population Growth by Size Class of Towns

Size Class	Contribution to total population		Growth Rate 1981-2001
	1981	2001	
I	65.80	63.03	90.39
II	0.00	14.70	0.00
III	11.74	3.89	-34.11
IV	6.08	10.02	227.75
V	10.92	5.85	6.59
VI	5.46	2.51	-8.75
Total	100.00	100.00	98.77

Source: Census of India, 1981 & 2001

Fig. 10
Distribution of Urban Population According to Size Class, 1981 & 2001



As far as the growth rate of urban population of different size class towns is concerned, class I towns accounted for 90.39 per cent of the growth between 1981-2001 while class IV towns returned the highest rate of growth at 227.75 per cent (Table III.89). For the first time class II towns emerged in 2001 with a total

population of 368270. This phenomenon of increasing concentration of urban population in cities implies that the economic activities are getting localized in such places as well as in the surrounding areas of such places.

INTER-DISTRICT VARIATIONS IN URBANIZATION

District-level statistics on urban population are presented in Table III.90 and summarized for the year 2001 in Table III.91.

Table III.90
District wise Distribution of Urban Population in
Jammu and Kashmir, 1951-2001

(Percentage of Urban Population)

S. No.	Districts	1951	1961	1971	1981	2001
1	Kupwara	0.00	0.00	1.95	2.95	3.96
2	Baramula	9.05	14.63	11.95	13.40	16.98
3	Srinagar	64.15	66.31	72.90	80.50	78.59
4	Badgam	0.00	1.51	4.41	14.13	11.66
5	Pulwama	4.56	4.67	7.28	8.98	10.72
6	Anantnag	6.07	8.47	9.91	10.71	14.40
7	Leh	8.76	8.53	10.64	12.75	23.39
8	Kargil	0.00	0.00	4.48	5.34	8.63
9	Doda	3.15	5.90	5.71	5.92	7.50
10	Udhampur	5.74	6.30	8.29	9.53	16.00
11	Poonch	6.37	6.60	8.08	6.32	6.31
12	Rajauri	1.87	3.59	3.86	5.23	6.98
13	Jammu	20.12	24.90	26.40	29.64	44.45
14	Kathua	5.16	7.37	9.03	11.38	14.21
	Jammu and Kashmir	44.78	16.66	18.59	21.05	24.88

Source: Census of India, 1981 & 2001.

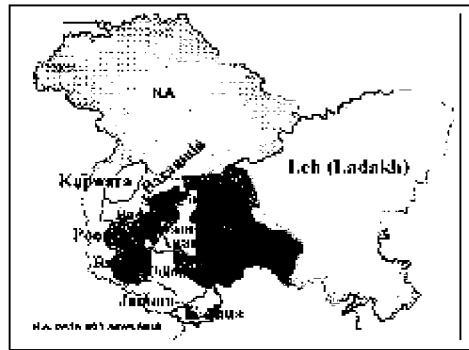
Table III.91
Distribution of Districts according to the proportion of urban population to
total population , 2001

Proportion (Percentage)	Number	Districts Name
79.54	1	Srinagar
44.45	1	Jammu
20-25	1	Leh
15-20	2	Baramula, Udhampur
10-15	2	Anantnag, Kathua
5-10	6	Badgam, Pulwama, Kargil, Doda, Poonch, Rajauri
< 5	1	Kupwara

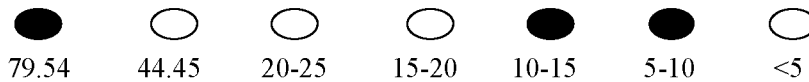
Source: Compiled from Table III.90.

Distribution of Urban Population, 2001

Fig. 11



Index



The urban population is spread over the districts of the state. However, there are signs of urban population concentration in districts of Srinagar, Jammu, Leh, Baramulla and Udhampur. All these districts have metropolitan cities and divisional administrative headquarters. The metropolitan cities of Srinagar and Jammu have also been the traditional growth centres since the past. The pull factors associated with these cities appear to be primarily responsible for the concentration of urban population in these towns and in these districts. As depicted in Figure 11, the highest proportion of population is in Srinagar and Jammu districts. Despite the high level of urbanization in these two districts, as observed from Table III.90, urban population continues to grow. Both Srinagar (summer) and Jammu (winter) being state capitals are the hub of the political, social and economic activities of the state. The level of infrastructure development in and around the city of Srinagar and Jammu and the attraction of living in the state capital along with diverse nature of opportunities available at the central place, appear to have attracted large number of people from the surrounding districts. With an increasing trend in the urbanization process, and substantial increase in the urban population in few districts, there is need for the initiation of an urban planning policy in these districts of the state.

The concentration of urban population in some districts is revealed from the growth rate in the number of towns as well. Table III.92 shows the growth in the number of towns. It is to be noted that during 1981 there were only two Urban Agglomerations (UAs) viz., Srinagar and Jammu. In 2001, the following five town also qualified as UAs on the strength of their population and urban overspill;

Baramulla, Sopore, Anantnag, Udhampur, and Kathua. Srinagar UA with the population of 971,357 has the highest urban population in the state spread over two neighbouring districts, viz, Badgam and Pulwama. Next is Jammu UA, which has population of 607,642, confined to its district territorial limits only. Moreover, 17 new urban areas were notified after 1981. Table III.93 shows the new towns added between the period 1981 and 2001.

Table III.92
Districtwise Growth in the Number of Towns in
Jammu and Kashmir, 1951-2001

S. No.	Districts	1951	1961	1971	1981	2001
1	Kupwara	0	0	1	2	2
2	Baramulla	3	9	5	6	6
3	Srinagar	2	2	2	3	3
4	Badgam	0	1	0	1	5
5	Pulwama	2	2	3	4	6
6	Anantnag	2	4	6	8	8
7	Leh	0	0	1	1	1
8	Kargil	0	0	1	1	1
9	Doda	2	6	6	6	6
10	Udhampur	4	4	5	6	7
11	Poonch	1	1	2	1	1
12	Rajauri	1	2	2	4	4
13	Jammu	5	7	7	9	13
14	Kathua	2	4	4	6	6
Jammu and Kashmir		24	42	45	58	69

Source: Census of India, 2001.

Table III.93
Urban areas notified after 1981

S. No.	District	Newly created urban areas
1	Baramulla	1. Hajin 2. Sumbal
2.	Badgam	3. Kunzer 1. Magam 2. Beerwah 3. Badgam 4. Khan Sahib
3.	Pulwama	1. Khrew 2. Awantipora
4.	Anantnag	1. Duru-Verinag
5.	Udhampur	1. Talwara (C.T) 2. Kud
6.	Jammu	1. Jourian 2. Khore 3. Gurah- Salathian (C.T) 4. Ramgarh 5. Gho Manhassan

Note: All the towns except two are Notified Area Committees (NAC).

Source: Census of India J & K 2001, Paper -2 of 2001, Rural-Urban Distribution of Population.

NATURAL INCREASE AS A CONTRIBUTING FACTOR TO URBAN POPULATION GROWTH

There are three components of urban population growth: natural increase, increase due to migration, and reclassification. In simple terms, natural increase is the addition made by the excess of births over deaths. Net in-migration is the excess of in-migration over out-migration. Reclassification refers to the change in urban population due to emergence of new towns, declassification of existing towns and alteration in the territorial justification of towns.

NATURAL INCREASE

Table III.94 shows the rate of natural increase in the state between 1980 and 1998. The rate of natural increase shows an increasing trend till the 1990s. In 1998 the rate has shown a decline. This means that rural-urban net migration since the 1990s to the major towns has cut into the role of natural increase in the state.

Table III.94
Natural increase in Urban Population in 1980-1998

Year	Annual BR/1000	Annual DR/1000	Natural Increase
1980	21.40	5.60	15.8
1984	26.20	9.60	16.6
1986	25.40	8.70	16.7
1988	23.60	5.90	17.7
1990	24.00	6.30*	17.7
1998	16.10	4.60	11.5

Note: * Figures are based on average of the previous three years since no half yearly survey was conducted.

Source: Registrar General of India, quoted in Digest of Statistics, 1999-2000.

Table III.95
District-wise Natural increase of Urban Population, 1980-1999

S. No.	Districts	1980		1985		1990		1995		1999	
		Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
1	Kupwara	34	17	110	47	103	14	289	314	707	401
	Natural increase	17		63		89		-25		306	
2	Baramula	842	200	1986	374	1774	89	3677	504	3080	671
	Natural increase	642		1612		1685		3173		2409	
3	Srinagar	11406	1190	17040	3196	19784	963	40694	2364	32676	3537
	Natural increase	10216		13844		18821		38330		29139	
4	Badgam	-	-	48	19	21	5	184	124	479	255
	Natural increase	-		29		16		60		224	
5	Pulwama	502	153	340	141	364	65	530	206	1042	558
	Natural increase	349		199		299		324		484	
6	Anantnag	2094	372	2437	360	1636	106	3136	355	3418	695
	Natural increase	1722		2077		1530		2781		2723	
7	Leh	-	-	60	30	51	8	45	57	183	77
	Natural increase	-		30		43		-12		106	
8	Kargil	-	-	-	-	-	-	-	-	-	-
9	Doda	149	62	235	94	223	951	425	232	928	270
	Natural increase	87		141		-728		193		658	
10	Udhampur	859	122	913	137	785	17	2073	226	3172	479
	Natural increase	737		776		768		1847		2693	
11	Poonch	51	22	217	56	275	18	214	166	412	299
	Natural increase	29		161		257		48		113	
12	Rajauri	189	35	143	48	206	16	347	147	598	185
	Natural increase	154		95		190		200		413	
13	Jammu	6112	1461	8296	1457	20706	38	15784	3034	19406	3991
	Natural increase	4651		6839		20668		12750		15415	
14	Kathua	559	76	586	167	2051	71	3740	191	5204	242
	Natural increase	483		419		1980		3549		4962	
	Jammu and Kashmir	22797	3710	32411	6126	47979	2361	71138	7920	71305	11660

Source: Directorate of Economics and Statistics Jammu & Kashmir.

Fig. 12
Districtwise Natural increase in Population 1980-1999

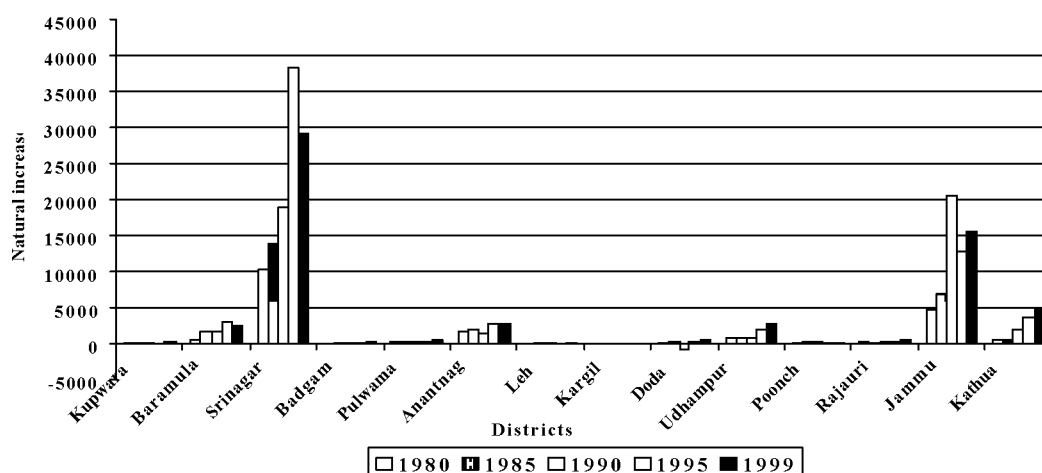


Table III.95 shows that the rate of natural increase is maximum in the two most urbanised districts of Srinagar and Jammu. Nearly 15,000 to 30,000 populations are added every year by way of natural increase in the two important cities. In Srinagar both migration and acquisition of villages within the city limit, i.e., reclassification is responsible for the increase in population. The new Master Plan 2000-2021 for Srinagar city will cover 126 villages within the city limits, thereby increasing the area of the city from 236 sq. km to 416 sq. km. The villages will be taken from Srinagar, Baramula, Budgam, and Pulwama right from Narbal, Shalbug, Mujgund, Soibug and Wathora to Galander.

EFFECTS OF URBANIZATION

Though it is an undeniable fact that urbanization, being an integral part of the development process, brings in its wake more opportunities and new possibilities, yet the attendant problems are be very acute and complex in nature. In Jammu and Kashmir, although most of the population lives in rural areas, the increasing concentration of population in the urban areas has created the usual problems such as the shortage of houses, inadequate supply of drinking water and problems of drainage and sewerage, pollution, unemployment, poverty, etc. The following paragraphs analyse some of the effects of urbanization in the state.

i) Housing

The major problem related to urbanization is the problem of habitation. The significance of this problem was also realised in the main theme address in the Second UN Conference on Human Settlements (Habitat II) held in Istanbul in 1996 which emphasized adequate shelter for all and sustainable human settlement development in an urbanising world.

Table III 96
Number of Occupied Residential Houses/ Number of
Households in Urban Areas

Districts	No. of Occ. Res. Houses		No. of Households		Population		Av. Size of the HH		Percentage Growth	
	1-71	1-81	1-71	1-81	1971	1-81	1971	1-81	ORH	HH
Kupwara	N.E	1171	N.E	1468	N.E	9583	0	6.6	0	0
Baramulla	7081	9247	8824	13056	66243	29766	6.7	6.9	34.32	33.14
Srinagar	43270	60794	60067	82793	423253	570195	7.0	6.9	-0.50	37.86
Srinagar U.A.	43270	60794	60067	82722	74234	606002	1.2	6.9	-48.96	-46.06
Badgam	N.E	5551	N.E	7296	N.E	51585	0	7.1	0.00	0
Pulwama	N.E	237	N.E	5354	N.E	36274	0	6.8	0	0
Anantnag	8267	7253	10942	10428	72234	70286	6.8	6.7	-1.64	-4.70
Lah	1573	1735	1939	2162	7569	8713	-0	4.0	13.43	3.70
Kargil	N.E	572	N.E	735	N.E	3527	0	4.4	0	0
Doda	3137	4118	3377	419	19536	25174	5.8	5.7	31.27	30.86
Udhampur	5362	8508	5777	8725	28419	43247	5.9	5.0	58.67	51.03
Poonth	2536	2633	2688	2616	13463	14171	5.2	5.4	3.82	-0.35
Rajouri	1626	2833	1756	2918	3297	15333	5.8	5.4	72.39	63.23
Jammu	29115	39218	33456	48396	191342	279614	5.7	5.8	34.70	44.64
Jammu U.A.	29115	29867	28007	38837	164207	223361	5.7	5.8	22.63	35.76
Kathua	4590	7328	4775	7440	25465	41592	5.3	5.6	59.65	55.81
Jammu & Kashmir	110566	150738	134629	197565	853221	1260403	6.4	6.4	-7.17	-43.97

Source: Census of India, 1971, Vol. I, India, Part IIA (ii) Union Primary Census Abstract. and Census of India, 1981, Series 8, Jammu and Kashmir, Part IIB, Primary Census Abstract.

Note: N.E Not Existed, ORH Occupied Residential Houses, HH Households.

Fig.13
Average Size of Household 1971-81

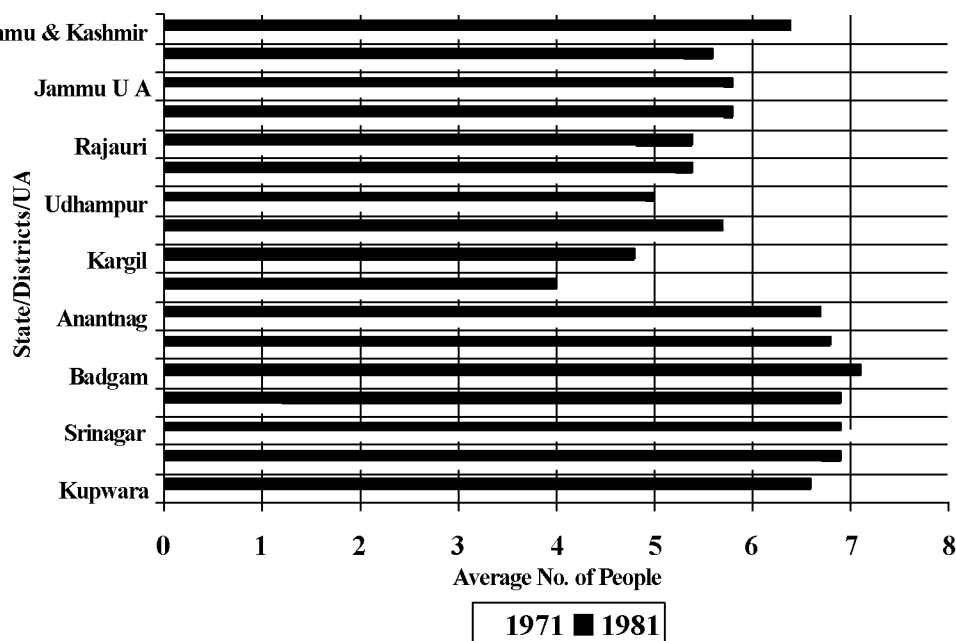
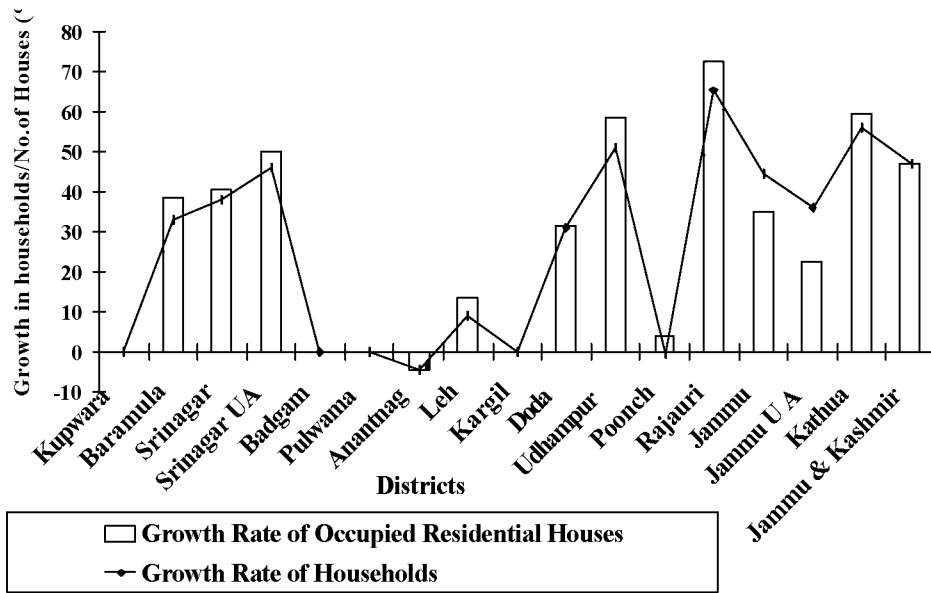


Fig. 14
Growth of Households and Number of Houses 1971-81



The continuous growth of population pressurizes the housing market, raising the demand for more houses. By the 9th Five-Year Plan the total housing shortage in the urban areas of the state was estimated to be to the tune of 1.63 lakh dwelling units. Table III.96 shows the average size of households, percentage growth of residential houses and households. The same is depicted in Figures 13 and 14. The average size of the household has not changed during the years 1971 and 1981. Therefore the ratio of occupied residential houses to the number of households also remained the same at 100: 126. Due to the limitation of availability of the current data, the analysis is not complete. But the pressure is clear from the fact that Srinagar Development Authority (SDA) have been given the challenging task for providing housing facilities and better civic amenities to the people as the available land resources are limited. To overcome the dearth of land in Srinagar city, a proposal for creating a land bank under the control of SDA is under active consideration of the government. For this purpose, about 5000 kanals of land are being acquired within the limits of the proposed greater Srinagar city under the new master plan.¹

Moreover, the mushrooming growth of private housing colonies, which are either ill planned or un-planned, has created various problems for urban local bodies in providing basic amenities to these colonies. Most of these colonies have turned into

1. The official Website of Jammu & Kashmir Government, India, *Newsline*, 09 July, 2001

slums which have caused various problems in the Srinagar city, stated the Minister for Housing and Urban Development, Mr. Ghulam Mohi-ud-Din Shah, while presiding over 66th meeting of Board of Directors of Srinagar Development Authority (SDA). He also underlined the need for involving private agencies in the housing sector owing to the growing demands of housing facilities in urban areas. It was also decided to transfer 1500 kanals of land at Mujgund to SDA by the Revenue Department by October 2001.²

Ghulam Mohi-ud-Din Shah also said that in order to cater to the needs of the people, it has become necessary to carve out new wards under local bodies for an efficient and transparent administration of these institutions. For example, in Jammu city 48 wards are being carved out of the existing 23 wards with a population of 7500 in each ward and in Srinagar 59 from the existing 33 wards.

With the demand for houses having increased, the quality and condition of housing has received much less attention. According to the NSS 49th round (Jan—June 1993), of the 80.82 per cent of the households living in pucca houses, 1.36 per cent lived in bad condition. The situation was worse for those living in semi-pucca and kutcha houses. According to the survey, 13.41 lived in bad condition among 14.98 per cent of the semi-pucca households and 19.57 per cent among 4.20 per cent of the households living in kutcha houses. According to the 50th round of NSS, 65 per cent of the households lived in their own houses while 32 per cent in rented houses and 3 per cent in others.

The 50th round of the NSS found that 99.6 per cent of the urban households had electricity connection, but no information about the supply of power is available so as to know the interruption in it.

It is also important to note here that only 64.7 per cent of the households in the urban areas (NSS 49th round) of the state had toilet facilities.

Slums are also a new phenomenon in the state. In 1999, the lake colony was the only slum on water in Srinagar. There were no slums on land. Unlike other cities where people encroach on land, in Srinagar they encroached on water.³ With the fast trend of urbanization and concentration of population in big towns, slums have come up in Jammu and Kashmir. The 2001 census recorded 5 towns with a slum population of 2,70,084, which accounts for 18.60 per cent of the total population staying in these 5 towns.

2. The official Website of Jammu & Kashmir Government, India, *Newsline*, 20 August, 2001

3 Of Shikaras and Slums, *Down to Earth*, Vol. 8, No.8, 15 September, 1999.

ii) Supply of basic civic amenities

Like housing, other facilities are essential for urban life. These include water supply, sewerage, disposal of solid waste, power supply, etc.

• *Water Supply*

Water supply and distribution is an important lifeline in any urban area. Inadequate and unhygienic water supply has been a perennial problem in Indian cities and a major factor responsible for periodic water-borne epidemics. Millions of city dwellers do not have access to a safe water supply source. According to the 1981 census, 14 per cent of the urban population did not have access to safe water supply, although much progress has been made. For the state as a whole, in 1981, 60 per cent of the population did not have access to safe water supply. Moreover, the supply is not sufficient to cater to the needs of the people.

For example, Jammu is located along the river Tawi in the foothills of the Himalayas, but it is reported that 70 per cent of the tap water supplied by the Public Health Engineering (PHE) department to the consumers in Jammu was unfit for consumption. Tawi river, the main source of drinking water supply, is itself highly polluted. Besides, the task of monitoring the maze of leaking pipes – the source of fecal matter getting into drinking water – is beyond the capacity of the somnolent PHE department.⁴ At present, 80 tankers are being utilized for supplying drinking water to water scarcity areas. This is because, against the demand of 63 MGD drinking water in Jammu city, the present availability is 50.80 MGD.

The problem of water supply has been so acute that the PHE department has also started exploitation of ground water in a big way due to the depletion of surface water resources. The department is facing a shortage of rigs for digging of tubewells and handpumps, as only four such rigs are available in the state. Mr. Ali Mohammad Sagar, the Minister for Works, said that the department is now purchasing 28 rigs at a cost of Rs. 90 crore with NABARD assistance for massive exploitation of ground water.⁵

The PHE department has installed 10 tube-wells in Jammu city during the past two years. With the installation of these tube-wells, there has been an increase of around 50 lakh gallons of potable water in the city. These tube-wells have been installed at

4 Drink Cola, Not Water, *Daily Excelsior*.

5 'Sharing of Ravi Water to be taken up with Punjab: Sagar', J & K Legislative Assembly Proceedings, *Daily Excelsior*, Tuesday, 19 March, 2002

NITCO Lane, Tawi Left, Muthi Left, Gole Gujral, Langeth, Kalu Chak, Dream Land Muthi, Shastri Nagar, Thanger Pattian and Bodhori. The department also plans to install 109 tubewells in Jammu district, 58 in Kathua, 48 in Udhampur, 32 in Rajouri, 15 in Poonch and 11 in Doda. The department has also formulated a Rs 100 crore plan for utilization of Chenab water for drinking purposes in Jammu region.⁶

The Minister said that under the Ground Water Exploration Programme, 173 tubewells have been installed in the state since 1996. Out of these, 81 tubewells have been commissioned in Jammu region while 92 tubewells have been installed in Kashmir Valley. Besides, 1720 handwells and 1332 shallow pumps have also been installed in Jammu region and 1467 hand pumps in Kashmir Valley. He said that during the last six years, 55 lakh gallons of potable water per day have been added to Srinagar and 50 lakh gallons to the Jammu city, as stated before. The Minister also said that a Rs.535 crore project has been formulated for the augmentation of potable water in Greater Jammu. He said a similar project is also being formulated for the augmentation of drinking water in Greater Srinagar.⁷

- *Sewerage and Drainage*

Prior to 1953, the Dal lake's water flushed out through the two major drains, the lock at Dal Gate, leading into canals which cut through downtown Srinagar, and the Nallah Mar. The canals in downtown Srinagar served as the city's communication arteries, with boats transporting goods and passengers. Due to the introduction of bus services in 1953 and the growth of population, the canals degenerated into sewage drains since there was no incentive to keep them clean and desilted. Today the canals are just gutters.⁸ Without a municipal waste disposal system and the absence of a sewerage system, residents of Bhagwanpora directly discharged their waste into the lake.

The waste water from the towns of Anantnag, Srinagar, Sopore and Baramulla are discharged into nalahs, drains and canals which ultimately reach the river Jhelum and is the main source of its pollution. With high growth of urban areas and increase in development, the quantum of untreated wastewater and solid waste is rapidly increasing. Various sewerage schemes have been taken up by the state to tackle the problem. Mention may be made of the Sewerage Scheme of Div A Phase II Talab Tilloo, Jammu, Pilot Sewerage scheme Khushal Sar, Pilot Sewerage scheme

6 The Official Website of Jammu & Kashmir Government, India, *Newsline*, 21 August, 2001.

7 'Sharing of Ravi Water to be taken up with Punjab: Sagar', J & K Legislative Assembly Proceedings, *Daily Excelsior*, Tuesday, 19 March, 2002

8 Swami, Praveen, 'To save a Lake', *Frontline*, Vol.15, No.11, 23 May- 05 June, 1998.

Brarinumbal., Sewerage scheme for Greater Srinagar city. The Doodganga drainage project has also been formulated for improving the drainage facilities in Resham Colony and Allochibagh areas of Srinagar.⁹

- *Disposal of Solid Waste*

Safe disposal of Municipal wastes is imperative for maintaining cleanliness and a pollution-free environment in cities and towns. Scientific disposal of solid waste is the only answer. The government is in touch with private and foreign promoters of solid waste management for setting up plants in Jammu and Srinagar to convert solid waste into manure. Giving details about measures taken by the government to improve civic and sanitation facilities, the minister said modern scavenging equipment was being procured to remove the filth in the interiors of congested cities. Manpower was being trained to operate these machines. As many as 16,000 dustbins were being distributed among the people in Jammu city during 2001, while this experiment had already been undertaken in Srinagar city.¹⁰

On the sanitation front, the Jammu Municipality has launched a night scavenging scheme, door-to-door collection of garbage and house-to-house separate collection of bio-degradable waste and non-biodegradable waste in Jammu city to ensure cleanliness and to initiate scientific solid waste management among the citizens.

- *Power*

Despite large purchases from the central plants and other states, it is unable to meet its peak demand and so has to curtail power supply for long hours in summers as well as in winters. The inadequate supply affects the ultimate consumers both in urban and rural areas. Since the supply of power is usually not metered, consumption is not charged and maintenance becomes costly. Moreover, power theft and pilferage exert additional pressure. Despite having large unexplored potential, the power situation is quite dismal. Inadequate transmission and distribution network, huge transmission and distribution losses, low power tariff, long gestation period of the power projects, paucity of funds for power generation and the law-and-order problems have contributed to a pathetic situation of the power sector. Inadequate and erratic supply of electricity is a major problem faced by the state.

9 'Acting CM visits various areas of Batamaloo', *Daily Excelsior*, Srinagar, Thursday, 21 June, 2001.

10 Minister: Civic poll within next six months', *The Tribune*, Jammu, Thursday, 22 March, 2001.

EMPLOYMENT SCENARIO

The roots of the problems in Jammu and Kashmir are of economic nature. Tables III.25 and III.26 indicate the number of unemployed in Jammu and Kashmir.

With the increase in population, the number of young educated applicants in the employment exchanges has increased from 112426 in 1990 to 167238 in 2000 – a growth of 48.75, which is quite high. The absolute increase was in the number of professional and technical workers during the same period

With a view to ameliorating the socio-economic condition of those living below poverty line in urban areas, and creating job opportunities for them under centrally sponsored Swaran Jayanti Shahri Rozgar Yojana (SJSRY), the Urban Development Agency, Kashmir (UDAK) imparted training to 1219 candidates in different crafts during 2000-01. Moreover, under the Urban Wage Employment Programme, aimed at providing wage employment to the beneficiaries within the jurisdiction of the urban local bodies, 81 works have been completed by the Srinagar Municipality and local bodies of Kashmir at a total cost of Rs. 62.93 lakh. Other schemes such as the skill upgradation and Development of Women and Children of Urban Areas (DWCUA) are also under implementation to tackle the unemployment problem. Likewise, under Urban Self-Employment programme (USEP), 995 cases have been sanctioned by various banks during 2000-2001 as against a target of 3262 cases set by the UDAK. The agency has provided a subsidy of Rs. 71 thousand for the sanctioned cases. An amount of Rs. 71.575 lakh has been incurred on the programme up to March 2001 as against a total allocation of 128.665 lakh for the year 2000-01.¹¹

The problem of unemployment in J&K has been extremely acute. The position is likely to worsen in view of the fact that the state government, as suggested by the union government, has taken a decision to ensure that the number of employees on the pay roll of the state government and its undertakings get reduced. In order to ensure this, a complete ban on filling up of vacancies through the Service Selection Board/Public Service Commission was imposed during 2000. The major avenue of employment therefore will be in the private sector. In order to achieve this, the self-employment schemes will have to play a major role in providing employment opportunities especially to the educated youth. It has been noted that the targets fixed for providing institutional finance under self-employment schemes are still not being achieved especially by the nationalized banks. This is revealed by the fact that

¹¹ Under SJSRY 81 works completed and 1219 candidates imparted training in different crafts, *Newsline*, Jammu, 31 July, 2001, The official website of J&K Govt.

against the target of 13,974, only 4099 (29.33%) accounts were opened and the institutional loan advanced for self-employment constituted only 27.24% of the target for 2000-01.¹²

POVERTY

The growing urbanization and the relentlessly growing urban population have enhanced the problem of urban poverty. It is considered to be the most demanding urban challenge and most important urban problem because poverty leads to many other problems in the urban areas. Table III.97 shows the urban poverty ratio of the state and nation.

Table III.97
Urban Poverty Ratio in Jammu & Kashmir and India

(in per cent)

	1973-74	1993-94	1999-2000
Jammu & Kashmir	21.32	9.18	1.98
India	49.01	32.36	23.62

Source: Planning Commission quoted in Economic Survey 2001-2002

The poverty ratio is estimated from the state specific poverty lines and the distribution of persons by expenditure groups obtained from the NSS data on consumption expenditure. The poverty ratio of both the state and the country has declined between 1973-74 and 1999-2000. As the figures show, the poverty ratio of the state has always been below the national average. But the figures always do not represent the actual situation. Therefore, socio-economic development intervention is always needed.

This can be justified by the fact that beggars are found in Srinagar right from the hottest tourist spots to the most impoverished places. While their estimated number is still not known, residents feel that there should be at least 2000 beggars moving around the valley. It is interesting to note that the beggars of Srinagar are not solely from among the local people. There are a large number of migrants flowing into the Valley from the states of Rajasthan, Haryana, Uttar Pradesh, and Bihar. Here they mingle with the local population and from there they go on to build their own begging groups.

¹² Speech by Dr. Farooq Abdullah, Chief minister, Jammu & Kashmir, in the meeting of the National Development Council, 1st September, 2001, Vigyan Bhawan, New Delhi.

The latest pretext for entry is the Amarnath Yatra. Most migrants come to Srinagar during this part of the season because they get many free provisions here. For Amarnath yatri, the Jammu and Kashmir government has made many attractive arrangements including free tented accommodation, free food at *langars* and special buses to transport them to various places.

Another surprising fact is that most of these migrants secure entry into this region on the tourist list. Since they register with the state transport people, the government conveniently counts them among the visiting tourists. So, where on the one hand the state government gets an easy chance to exaggerate the number of tourists by registering these migrants as the same, the latter also make full use of the opportunity.

Once they enter the region, it is easier for them to operate. In the bargain, the beauty of the Valley suffers. Today, about 70 per cent of the beggars in Srinagar hail from other states. They have also raised small slums in the Batmaloo area which has the largest concentration of migrants. A visit to Batmaloo revealed that while the men in the migrant families worked as daily wagers, the women begged for alms. Most children have also been forced into this business of begging.

The Boulevard Road (which runs along the Dal Lake) alone had about 60 beggars at a time. While about 10 of them were local Kashmiri Muslim, the rest were all migrants from outside states. Large pockets are also found on the Amira Kadal bridge and Hari Singh Estate area. On Fridays they cluster outside the mosques.

Regarding the local Kashmiri Muslims, many of them have taken to beggary in the absence of other means of earning a livelihood. Ahmad Shah, a teacher with a private school said, "Begging is against Islam. On the contrary our religion inspires us to donate money and funds. But now you can find many beggars in Kashmir because they have no other means of livelihood. The entire tourist sector lies ravaged. What will the people do? They have to beg to eat. They can't even get employment because the rate of employment in the Valley is very low."¹³

URBAN DEVELOPMENT AND THE TENTH FIVE-YEAR PLAN (2002-2007)

The housing and urban development sector which received little attention in the First Five-Year Plan came to be an important sector both in terms of providing houses to

¹³ Wounded Valley, A Tribune Special, 'Beggars throng tourist spots', Aditi Tandon, *The Tribune*, Wednesday, 4 July, 2001.

the people and preservation of environment in the later plans. In the First Five-Year Plan Rs. 0.16 crore was spent on this sector which swelled to a proposed outlay of Rs. 763.87 crore in the Tenth Five-Year Plan. Table III.98 shows the break-up of the proposed outlay for urban development during the Tenth Five-Year Plan.

Table III.98
Tenth Five-Year Plan – Proposed Outlay

(Rs. in lakh)

Urban Development	Rs.76387.03
a) Urban Development	Rs.25979.40
b) Dal Development	Rs.48181.00
c) Urban Poverty Alleviation	Rs.2019.33
d) Fire Services	Rs.257.30
Housing, Water Supply and Sanitation	Rs.2050.00
a) PHE-Jammu	Rs.42277.87
b) PHE-Kashmir	Rs.39585.22
c) Sewerage	Rs.10204.00
d) Drainage	Rs.12796.72

Source: Planning and Development Department, Government of J & K, Tenth Five-Year Plan (2002-2007)

Under the urban development sector, the schemes, in the Ninth Plan, will continue in the Tenth Plan also, to provide basic facilities to the urban population. The main schemes which were taken up during the Ninth Five-Year Plan include Capital City Development Programme (CCDP), Civic Amenities in Town (CAT), Integrated Development of Small and Medium Towns (IDSMT), Financial Assistance to Local Bodies (FALB), Comprehensive Urban Transportation Project, Low-cost Sanitation (LCS), Development of Patnitop, Dal Conservation and Development of Model Town Charar-I-Sharif, Integrated Development of Medium Towns (IDMT), and National Slum Development Programme (NSDP).

During the Ninth Plan (1997-2002), the target for the construction of new houses was 24454, while the achievement was 29719. The target for the Tenth Plan is 31704 houses. The housing schemes of the Ninth Five-Year Plan will continue in the Tenth Five-Year Plan as well. The proposed land for acquisition will be used for the development of various EWS/LIG/MIG colonies in the state. These colonies are Sidhra township, Zakura, Channi Rama, Ompora etc. During the 9th Five-Year Plan Sidhra near Jammu and Zakura near Srinagar was taken up for development of satellite townships. Valmiki Ambedkar Awas Yojana (VAMBAY) scheme has recently been launched by Government of India for providing shelter/upgradation to

the urban slum dwellers with 50 per cent subsidy component which will be provided by HUDCO.

The PHE Department Jammu along with the augmentation and improvement of water supply in Greater Jammu, have also identified 30 towns for the same. Among 30 towns, work in 6 towns namely, Vijaypur, Hiranagar, Sunderbani, Chanani, Ramnagar and Reasi is already complete. During the Tenth Plan, it is proposed to complete all the remaining 24 towns.

Similarly, the PHE Department Kashmir undertook to implement the water supply scheme in 14 towns during the Ninth Five-Year Plan. Three towns have been completed since 1997 and two towns namely, Harrensheerpathri and Budgam have been targeted for completion during the current financial year, the rest of nine towns for completion during the 10th Five-Year Plan. It is proposed that along with these nine towns eight more towns, namely, Kangan, Kupwara, Hajin, Kokernag, Pampore, Tral, Kulgam and Qazigund shall be taken up as new schemes for providing safe drinking water.

Under urban development, the development of model town of Charar-I-Sharif which is estimated to cost Rs. 24 crore, is planned to be completed during the Tenth Plan. The main feature of the scheme is to develop a satellite colony for the people living around the shrine complex, besides providing other civic amenities for the town. The project has been exposed to HUDCO for the provision of loan and HUDCO has accepted the same in principle for an amount of Rs.19 crore. The state contribution is to provide Rs. 5 crore and since the state has already incurred an expenditure of Rs.5.32 crore on the project, it will be treated as state contribution.

Two new programmes regarding development of the road network in Bemina Colony, Srinagar and the development of extended areas in Srinagar city are being taken up with an outlay of Rs. 6 crore and Rs. 12 crore respectively as part of Capital City Development Project. A project for development of Lakhanpur, the gateway to the state of J&K, has also been prepared at an estimated cost of Rs. 15.74 crore.

Under the Jhelum Action Plan, an estimated cost of Rs. 284 crore has been prepared and is expected to be fully financed by the Government of India (GOI). Already the National River Conservation Directorate, Ministry of Environment and Forests, GOI is coordinating the overall implementation of the schemes under the Jhelum River Conservation Plan (JRCP) through the state government identified nodal agency, J&K Lakes and Waterways Development Authority (LWWDA), Srinagar.

RECOMMENDATIONS FOR URBAN DEVELOPMENT

1. Urbanisation, being a state subject, the state government should prepare urbanization strategies. Comprehensive integrated urban area development plans including zonal, district and sector plans and layouts are recommended after site evaluation and environmental impact analysis. Integration of smaller urban units within broader economic networks is essential.

Overall area planning also includes circulation networks and public utilities. Therefore, before planning, evaluation studies should be taken up to assess the impact at the local level of macro-economic policies and of the globalisation of markets and technology, and the new forms of economic integration and urbanisation they generate. According to the feasibility of growth, urban form of the towns should be recommended. Therefore the strategy and overall design of urbanization projects should reflect a multi-level approach.

2. As far as an urban area is concerned, the municipalities and corporations should also be brought within the framework of the proposed decentralized set up. The functions and powers of the municipalities and corporations should be incorporated in the constitution of the state, according to the provisions of the 74th Amendment to the Indian Constitution on the subject.
3. There should be reservation and not nomination for the SC, ST and OBC in proportion to their population in the area; minimum, not maximum reservation of 33 per cent for women as recommended in the case of panchayati raj institutions (PRIs). The reserved seats may be allocated by rotation to different constituencies in municipalities or corporations.
4. As the urban agenda involves a host of broad sub sectors development like sustainable provision or expansion of urban infrastructure facilities, an increasing involvement of the private sector in the provision of urban services becomes imperative not only in terms of increased resource flows but also in terms of efficiency gains in provision of services. The private sector participation helps in:
 - bringing technical and managerial expertise to the sector;
 - improving operational efficiency;

- reducing the need for subsidies; and
- increasing responsiveness to consumer needs and preferences.

Private sector participation can be encouraged in urban infrastructure in several ways including extending of resources, providing state-of-the-art technology at the project management and maintenance levels. Besides, public-private partnership can be developed on models like build-operate-transfer (BOT), build-operate-own-transfer (BOOT), build-operate-lease-transfer (BOLT) and design-build-finance- operate-transfer (DBFOT) models.

5. The private sector is yet not confident of putting money in urban infrastructure sector even though the financing options are rapidly changing due to financial, technological and organisational innovations. There are other issues like levy of user-pay charges. People should be made aware that if they pay for water, sewerage and electricity, they will get better services. The concepts of user-pay, abuser-pay and polluter-pay should be implemented while determining the service charges to assess the practical aspect of pricing.
6. Provision should be made to regulate the discharge of urban waste water into bodies of water by establishing control measures in the context of overall water management policy, taking into account both qualitative and quantitative requirements.
7. Micro-level planning needs to be carried out for solid waste management in different wards of the cities. The innovative sanitation schemes introduced by the Jammu municipality (discussed earlier) could be implemented in other urban areas as well. For this Public-Private-Peoples Partnerships (PPPP) is recommended from the present 100 per cent focus on Public as it allows for synergy/convergence /integration.
8. A critical component of any urban development plan is the provision of adequate water supply. The drinking water arrangements both in Srinagar and Jammu need to be strengthened and improved. What is required is an assessment of drinking water requirements in the next twenty years and drawing up of plans that can be implemented within a short time frame. There

has been talk of supplementing drinking water requirements of Jammu city by laying a pipeline from Chenab river near Akhnoor. The cost involved no doubt is a deterrent but no other viable alternative is in sight.

9. There are a number of urban water supply and sewerage projects which the Ministry of Urban Affairs and Employment has taken up for external assistance through the Department of Economic Affairs of the Ministry of Finance. The projects are funded by the Overseas Economic Cooperation Fund (OECF), Japan, and the World Bank. As urban water supply and sanitation are state subjects, the selection of sites for the projects rests entirely with the state governments. The criteria for selection normally depend on the need for augmentation and improvement of the services and the technical, financial and institutional capacity of the urban local bodies to implement the projects with foreign assistance. The state government can also take up some externally funded projects to augment water supply and sanitation
10. The role of cooperatives in mitigating the housing condition in India is appreciable. Increasing emphasis can be laid on the formation of housing cooperatives to meet the growing demands of housing facilities in urban areas. These cooperative societies can be made responsible for the maintenance of essential services and other common assets to reduce the pressure on the ULBs.
11. To increase the availability of affordable housing to economically weaker sections and low-income groups, the state government should provide policy framework and legislative, fiscal and financial system that would put into effect the enabling role of the government in the housing delivery system. The government should also introduce a separate housing scheme for persons living below poverty line in urban areas along with HIG/MIG and LIG schemes for all towns with more than 50,000 population. To cope with the problem of slums, if the government could grant legal occupancy leases to the existing tenants and also thereafter permit the new occupancy leases to be bought, sold or rented out to different occupants, there would be a free market which would facilitate greater mobility and the exchange of property as well as encourage private improvement of slums.

The Government of Kerala has initiated an innovative scheme for down marketing housing credit for the urban poor as cash loan to the individual

beneficiary for construction of houses with the beneficiary family's participation, as a special programme during the 50th anniversary of India's independence. This novel scheme is a self-help programme by the beneficiary households organized as Community Development Societies (CDS) in all the municipalities and corporations of Kerala with a special arrangement for savings of the order of 15 per cent of the house cost in HUDCO's Public Deposit Scheme. The J&K state government could also try such innovative schemes to solve the housing problem of the urban poor.

12. Urban Transport should be given due attention as the primary tool for the development of urban forms in India. The state government should prepare a transport policy that is affordable, and provide accessibility and reasonable mobility to all sections of the society, reduce and control pollution, optimize fuel consumption, improve safety and be socially, environmentally and financially sustainable. The policy should be dynamic and should take into account the increasing population, ongoing urbanization and economic growth. Efforts should be made to provide compulsory cycle tracks and separation of road traffic according to mode of transport in medium and large towns. Computerized traffic signals should be made mandatory.
13. Another crucial issue is the development of a strong Urban Information base. The developing and nurturing of partnerships has been identified as the new tool for achieving the progress without hampering resources for future generations. Education and capacity building has to provide an important input in this agenda if it has to be successfully implemented. Capacity-building efforts along with the policies have to be developed to allow for greater awareness and attitude towards formation of Public-Private People's Partnerships (PPPP).
14. A reliable database needs to be created on a continuous updating basis. This can be generated through compulsory assessment by landlord/occupant to be reconciled by the municipal officials followed by a comprehensive study on the restructuring of the municipal finances that will include Management Information System and training programme to make the ULBs more service oriented. The gaps and shortcomings in the delivery of municipal services should be identified. Since urban poverty is a growing/ persistent phenomenon there will be a continuous need to gather information on the levels of poverty, relative income inequalities, etc., and to study the composition of its

manifestations. The state has one of the unique problems of encroachment on water more rather than land. There is a definite case for preparation of well-documented case studies of success failures, reasons thereof spelling out clear cut steps, initiatives, etc.

15. Training should be given targeting the building up of capacity of the local government to: i) identify, develop and manage commercially viable environmental and infrastructure projects; ii) enter into agreements with private providers of basic urban services, rationally price the delivery of services and recover costs; iii) improve the planning of basic urban services; and to operate, maintain and recover costs for basic urban services in order to develop sound financial management systems which will support access to the capital market, and iv) to improve the ability to form partnerships with private land developers.

C. Administrative Sectors

1. PANCHAYATI RAJ

PANCHAYATI RAJ – A RETROSPECT

The Panchayati Raj is an indigenous and time-honoured concept in our country. The form may vary, but the spirit has always been part of our socio-cultural ethos. Its origin can be traced back to ancient ages where community spirit was the main force not only to keep village communities united but to help them manage local affairs independently. Sir, Charles Metcalfe characterized them as small “republics having nearly everything that they want within themselves”. In the villages the different sections of the community helped and depended on one another and this mutual dependence was reinforced by age-old customs and traditions. Mobility was limited and so were their needs and aspirations. Since most of these village communities were self-sufficient for their day-to-day needs, the system of self-governance helped them remain intact and self-contained. These village bodies were the lines of contact with higher authorities on all matters affecting the villages. Despite many political changes in cities and towns during the medieval period, the system of local government or the panchayats in the villages continued undisrupted¹. The State of Jammu & Kashmir has its own unique history as far as Panchayati Raj is concerned.

THE JAMMU & KASHMIR VILLAGE PANCHAYAT REGULATION ACT, 1935

During the British period, while as in the rest of the country the Panchayati Raj system passed through various phases, in the State of J&K it was only in 1935 when the first Village Panchayat Regulation Act No. 1 was promulgated by the then Maharaja Hari Singh. The preamble of the Act, states, “it is expedient to establish in Jammu & Kashmir State the village panchayats to assist in the administrative, civil and criminal justice and also to manage the sanitation and other common concerns of the village”, it clearly showing that the essence behind the promulgation of this Act was not to promote Panchayati Raj in the State in letter and spirit but to use panchayats as an extended arm of the Government for judicial and civil administration. This Act was limited in its objectives and elitist in nature. There was no semblance of a democratic character. The Act made provisions for the elections of panches numbering 5-7 by simple show of hands. One among the panches was

¹ Aslam M. (1996) ‘Local Self-Government in India: Retrospect and Prospects’ in ‘Role of Local Self-Government in Rural Development, AARRO, New Delhi.

expected to be nominated by the panchayat officer (Wazire-e-Wazarat). Besides, but the panchayat officer was empowered to evolve rules and regulations for the conduct of the election of panches.

This Act also laid down tough qualifications for the voters and for the candidates seeking election to the panchayats². These include that a person seeking election to the Panchayats should:

- be a hereditary state subject
- be a resident of a rural area
- not be insane
- be not less than 21 years of age
- be paying at least Rs. 5/- as revenue tax
- own property worth Rs. 1000/-
- have an annual income of at least Rs. 700/-
- be a minimum matriculate or the equivalent thereof.

The State of Jammu & Kashmir at that point of time was in the grip of economic and educational backwardness. Keeping literacy level and economic well-being of the voter as the yardstick for participation in panchayat elections only helped the rural elite owing allegiance to rulers to use these institutions to their advantage.

An analysis of the main functions assigned to the panchayats reveals that out of a total of 58 provisions of the Act, 47 dealt with judicial functions. The non-judicial functions of the panchayat mainly included supervision, construction and maintenance. The supervisory functions mentioned in the Act were related to supervision of village schools, supervision of village officials and labourers, etc., and supervision of public lands and buildings. The basic idea behind the supervision was to maintain some vigilance over village affairs on behalf of the government. Very little attention was paid to non-judicial functions which, among others, included improvement of public health, and maintenance of public wells and tanks³.

One of the interesting features of this Act was that the Department of Revenue was given the responsibility for establishing panchayats. In 1936, a Department of

2 Riyaz Punjabi (1990) "Panchayati Raj in Kashmir Yesterday, Today and Tomorrow" in Panchayati Raj in J&K ed. George Mathew, ISS, New Delhi.

3 Aslam M. (1999) Panchayati Raj in J&K Retrospects and Prospects" in Restoration of Panchayats in Jammu & Kashmir, ed. Joya Roy, ISS, New Delhi.

Panchayat and Rural Development was established and affiliated to the Revenue Department. The main function of this department was to supervise the functioning of the panchayats apart from providing necessary funds. It was under this department that “Dehat-Sudhar Committees” (Village Reforms Committees) were organized, ostensibly to advise panchayats but in effect to keep them under the control of the ruling class. Due to the non-democratic nature of the panchayats, people seemed to lose faith in the panchayat institutions and, as a result, the Act remained more or less dysfunctional.

AMENDED ACT 1941

The Act of 1935 was amended in 1941. The amended regulation covered a wide range of subjects. The Panchayats were delegated the power to maintain all public roads, movable and immovable public properties and other structures in the villages. They were also given powers to levy taxes and generate resources for the development of the village, besides constructing and maintaining public roads, bridges, wells, ponds, water reservoirs, etc. Regulation of sites of slaughter houses and examining and inspecting weights and measures was also brought under the Panchayat’s control.

Under this Act a person was disqualified from seeking election to Panchayat if:

- He were a full-time Government employee,
- A competent court had declared him insolvent,
- He were convicted of any offence and subjected to any punishment by a criminal court.

POST – 1947 SCENARIO

The post-1947 period witnessed many new developments in the State. The National Conference came to power in March 1948. At that point of time, the development scenario of the State was characterized by economic stagnation and educational backwardness. The Jagirdars and Chakdars had accumulated large chunks of land through manipulation. The majority of the people were impoverished. In view of this situation, abolition of landlordism became the top priority of the Government. It resulted in the introduction of Big Landed Estates Abolition Act, 1950. This was a landmark in the history of J&K as it was the first experiment of its kind in land reforms in the subcontinent. The introduction of this Act brought about appreciable changes in the socio-economic scenario of the State. In quantitative terms, 4.5 lakh acres of land held in excess of 22.7 acres (excluding orchids) were expropriated from as many as 9000-odd land owners. Out of this ownership, rights of over 2.31

lakh acres of land were transferred to the cultivating peasants. All these measures created a conducive environment for reactivation of the Panchayati Raj system in reshaping the rural economy in the State⁴. Realizing this, the Government replaced the Panchayat Act of 1935 (as amended in 1941) with Act-V of Samvat 2008 (corresponding to year 1951). The main features of this Act were:

- Majority of the panchayat members were to be elected on the basis of adult franchise;
- Panchayats were to perform administration, developmental, civic and judicial functions;
- Introduction of concept of Halqa Panchayat comprising 5-7 villages;
- Introduction of panchayat board at each Tehsil; and
- Identification of sources of revenue for panchayats.

The Act provided for administrative, developmental, civic and judicial functions by the Panchayat. “By March 1951, 540 Panchayats had been established in the State. By March 1954 this figure has risen to 751, covering 4,774 villages”⁵.

On the one hand the Government was busy materializing the objectives set for democratic decentralization through Panchayati Raj; on the other hand, the State Government joined rest of the country in introducing community development programme throughout the State in 1952. Local self-government entered a long period of dormancy before it could be revived.

THE JAMMU AND KASHMIR VILLAGE PANCHAYAT ACT – 1958

The introduction of community development programme (CDP) and the National Extension Services (NES) occupied the full attention of the Central and the State Governments during most of the 1950s. Towards the end of the decade, it was realized that the expectations raised by these programmes were not getting fulfilled and that one of the main reasons was lack of people’s participation in the planning and execution of these development schemes. At the national level, it was the study team on Community Development and National Extension Services headed by Balwant Rai Mehta (1957) which expressed concern about the lack of people’s participation and made a strong plea for devolution of power to lower levels through

4 Aslam M. “Land Reform in J&K”, “Social Scientists”, Volume 6 No. 4, November, 1977.

5 Sultan Mohammad (1995) “Jammu & Kashmir” in Status of Panchayati Raj in the States of India-1994’, ISS, Concept Publishing House, New Delhi.

panchayats. Before the Panchayati Raj system could be introduced in the whole country, the Jammu & Kashmir State took a lead by passing the Jammu & Kashmir Village Panchayat Act of 1958 and repealing the earlier Acts.

This Act of 1958 did not differ much from 1951 Act. Although the Act was passed primarily to make better provisions for the administration of Village Panchayats in J&K State, the manner of its implementation made it open to manipulation by various vested interests. For example, “under this Act any Panch, Sarpanch or Naib-Sarpanch could be removed from office in case his conduct in office was ‘undesirable’ or his removal (was) desirable in the interest of the public”⁶.

“The Act also provided for establishment of ‘Panchayat Adalats’ apparently to decentralize administration of justice The Government could remove any member elected to the Panchayat Adalat if he was found to be either guilty of mis-conduct in the discharge of his duties or incapable of performing any of his duties”⁷.

The Act also talked about the prescribed authority who were to determine the number of Panchs to be elected and/or nominated. The number of Panchs to be fixed from time to time as determined by the competent authority which could have been less than 7 and not more than 11.

In the earlier Acts, the stipulations for the right to vote or to contest elections for the office in the Panchayat had made the power base of the panchayat inevitable preservation of selected beneficiaries of autocratic rulers; in 1958 Act, the removal of Panchs and Sarpanchs by the Government presumably in public interest served as similar performance. Therefore, the story of Panchayati Raj in the State remained more or less the same. No endeavour was made to evaluate the possible problems and shortcomings so that suitable remedial action could have been taken up.

SINGLE-LINE ADMINISTRATION MODEL

The Government introduced an innovative developmental strategy, “the single line administration model” in the mid-1970s. The panchayats as a local institution of self-government remained dysfunctional over a long period of time. Wherever they existed, they were at the village level only without any functional linkages with the developmental institutional structures that existed at the block and district level. It took almost two decades for the State Government to realize that without people’s participation, the developmental process could not achieve desired objectives. The

6 Riyaz Punjabi (1990) Ibid.

7 Sultan Mohammad (1995) pp. 91, Ibid

decentralization of planning process was new upcoming developmental slogan at that point of time. The State Government took a bold step by introducing an innovative concept of 'Single Line Administration', to secure the participation of the people through their representatives in the developmental process. "The twin objectives of the Single Line Administration was to secure a mechanism for developing the planning process at the district level to take full account of the resource endowments the potentialities and needs structure and also to initiate a process of equitable development of various areas within the district"⁸.

The introduction of this innovative developmental strategy in the mid-1970s could not reinvigorate the Panchayati Raj system and in the absence of any linkage to other institutional framework, it remained dormant. Almost no endeavour was made to evaluate the possible problems and shortcomings so that suitable remedial action should have been taken⁹.

However, the implementation of this innovative model led to the realization that "human potential which is available at the grassroots level should be mainstreamed into the movement of development to purvey a sound and strong basis to the democratic structure. It was in this context that the desire to have a sound institutional framework to give a definite and positive role to the community in the matter of self-governance has provided a sense of urgency for restructuring the institutional framework of Panchayati Raj"¹⁰. This realization led to the introduction of Jammu & Kashmir Panchayati Raj Act, 1989.

THE JAMMU & KASHMIR PANCHAYATI RAJ ACT, 1989¹¹

The Jammu & Kashmir Panchayati Raj Act, 1989 was introduced in the J&K assembly in April 1988 and passed in March 1989. The Governor gave his assent to the bill in July 1989.

For the first time an Act was named a "Panchayati Raj Act" rather than a "Village Panchayat Regulation Act". The former implies the promotion of Panchayati Raj in the State (at village, block and district levels) whereas the latter was confined to panchayats at the village level alone. This is certainly a very positive development.

8 Sushma Choudhary (1990) "Does the Bill give power to people? In Panchayati Raj in J&K" George Mathew (Ed.), ISS, Concept Publishing House, New Delhi.

9 Aslam M. (1999) Panchayati Raj in J&K Retrospects and Prospects" in Restoration of Panchayats in Jammu & Kashmir, ed. Joya Roy, ISS, New Delhi.

10 Sushma Chaudhary (1990) Ibid

11 'Panchayati Raj Act – 1989 & Panchayati Raj Rules – 1996' Agriculture & Rural Development Department, J&K Govt.

The preamble of the 1989 Act states: “Whereas it is expedient to promote and develop Panchayati Raj in the State as an instrument of vigorous local self-government to secure effective participation of the people in the decision making process and for over-seeing implementation of development programmes”. The salient features of the Act are:

- a) reduction of voting age from 21 to 18 years;
- b) holding of elections within six months of supersession of a panchayat;
- c) direct election of the Sarpanch (Chairperson);
- d) constitution of Panchayati Adalat (Panchayat Courts) comprising five members who shall be nominated by the prescribed authority out of the panel prepared and recommended by the halqa panchayat;
- e) empowering panchayats to prepare plans and implement schemes for poverty alleviation and employment generation, agriculture and allied activities, rural industrialization, health, universalisation of elementary education, etc.;
- f) no bar on holding elections on party lines.

THREE-TIER MODEL

The Act provides for a three-tier system consisting of halqa panchayat¹², Block Development Council and District Planning and Development Board. In addition, the Act provides for a Panchayati Adalat for every halqa.

HALQA PANCHAYAT

The Act provides for a halqa panchayat for every halqa. The halqa panchayat shall comprise of such number of panches not less than seven and not more than eleven including the Sarpanch as the prescribed authority may fix from time to time. The panches shall be elected from the constituencies delimited by the prescribed authority. While the Naib-Sarpanch shall be elected by the panches of the halqa panchayat from among themselves, the Sarpanch shall be elected directly by the electorate of the halqa panchayat. The halqa panchayat shall continue to function for a period of five years from the date of its constitution. If it is dissolved for any reason before

¹² “Halqa” means the area comprising a village or such contiguous number of villages as may be determined by Government from time to time. Provided that the halqa shall be determined in such a manner that the population of any halqa does not exceed 3,000 in the hilly areas and 4,500 in the plain areas.

this period, elections will be held within six months. A Sarpanch or Naib-Sarpanch can be removed by a vote of no-confidence passed by a majority of not less than two-thirds of the total number of panches of the halqa panchayat.

The other features of the Act in respect of halqa panchayats include:

- If the prescribed authority is of the opinion that women are not adequately represented in the halqa panchayat, it may nominate such number of women to be members thereof, as it may deem fit. Provided further that their number does not exceed 33 per cent of the total number of panches.
- The village level worker (VLW) shall be the Secretary of the halqa panchayat.
- If, in the opinion of the Government, a halqa panchayat is incompetent or persistently makes default in the performance of duties imposed on it by or under the Act, the Government may by notification supersede such a halqa panchayat.

The Act provides for such powers and functions to the halqa panchayat which can enable it to become the cutting edge of all the development efforts, but all this is subject to availability of funds as its disposal. There is hardly any development activity left out which does not fall within the purview of the halqa panchayat.

BLOCK DEVELOPMENT COUNCIL

The Act provides for the constitution of Block Development Councils consisting of:

- (i) a Chairperson,
- (ii) all Sarpanches of halqa panchayats falling within the block, and
- (iii) Chairpersons of Marketing Societies within the jurisdiction of the block.

However, if the prescribed authority is satisfied that women or scheduled castes or any other class are not represented in the Council, it may nominate not more than two persons to be the members of the Block Development Council. The Block Development Officer shall be the Secretary of the Block Development Council.

The main functions of the Block Development Council include construction,

maintenance and supervision of an inter-halqa panchayat communication system. It will also provide administrative and technical guidance to the halqa panchayats and supervise and monitor planning and implementation of various development programmes. The Act proposes to constitute a Block Development Council Fund comprising grants made by the government on per capita basis and revenue assigned by the District Development and Planning Board.

One of the important features of the Block Development Council under the Act is that the chairperson shall be elected by the electoral college comprising elected panches and sarpanches. No member of the State Legislature or Parliament can hold any office in the Block Development Council.

DISTRICT PLANNING AND DEVELOPMENT BOARD

Further, the Act provides for the constitution of a District Planning and Development Board (DPDB) comprising:

- (i) Chairpersons of the Block Councils of the District;
- (ii) Members of Parliament representing the area;
- (iii) Members of the State Legislature representing the area;
- (iv) Chairperson of the Town area Committee at the District; and
- (v) President of the Municipal Council (if any)

The chairperson of the DPDB shall be nominated by the Government from amongst the members of the DPDB. The vice-chairperson shall be elected by the members from amongst themselves. The District Development Commissioner shall be the Chief Executive of the Board to be assisted by district level Heads. The main functions of the Board shall be to: (i) consider and guide formulation of development plans for the district and indicate priorities; (ii) review progress and achievements periodically; (iii) formulate and finalize the plan and non-plan budget for the district; (iv) lay down policy guidelines and approve budgets of the Block Development Councils; and (v) undertake special measures for alleviating poverty and employment generation and extending assistance to halqa panchayats in this behalf.

All the development assistance meant for the development of the district will flow through the District Planning and Development Board. The DPDB shall set up committees to handle specialized jobs. The number and manner in which they shall be constituted shall be decided by the DPDB.

PANCHAYATI ADALAT

The idea of Panchayati Adalat is an innovative one, particularly at the grassroots level. As per the provisions of the Act, the Adalat shall comprise five members to be nominated by the government out of the panel prepared and recommended by the halqa panchayat out of its electorate. The person so recommended for a term of five years shall be literate, shall have attained the age of 30 years, not be a Sarpanch or a Panch and not be in the employment of the government or local body or corporation.

The members of a Panchayat Adalat shall elect any member from amongst themselves as the chairperson. The Secretary of the halqa panchayat shall serve as the judicial clerk to the Panchayat Adalat. Every member of the Adalat including chairperson shall be deemed to be a public servant within the meaning of Section 21 of the Ranbir Penal Codes¹³ Samvat 1989 (corresponding to year 1940). The Panchayati Adalat shall not be competent to impose on any person convicted of an offence tried by it, any sentence other than a sentence of fine not exceeding one thousand rupees. The chairperson and members of the Panchayati Adalat will be entitled to a sitting fee as may be decided by the government from time to time. The government may remove the chairman or any member of a Panchayati Adalat after giving him the opportunity of being heard, or after such enquiry as the government may deem necessary if such chairman or member in the opinion of the government has been guilty of misconduct or neglect or refusal to perform or is incapable of performing the functions of the Panchayati Adalat.

JURISDICTION OF PANCHAYATI ADALAT

The Panchayati Adalats enjoy both criminal and civil jurisdictions. The criminal jurisdiction is extensive and covers a substantial range of offences under the Ranbir Penal Code, Samvat 1989 as well as the special statutes. Civil jurisdiction is confined to claims of the value of Rs. 3,000 involving suits for ascertained sums, for damages for breach of contract not effecting immovable property, and compensation for wrongly taking or injuring immovable property. A Panchayati Adalat shall not be competent to impose on any person convicted of an offence tried by it, any sentence other than a sentence of fine not exceeding one thousand rupees. The government is empowered to enhance the jurisdiction in civil cases up to Rs. 2,000.

The constitution of Panchayati Adalat at halqa level is a very welcome development,

¹³ The Ranbir Penal Code is the equivalent of the Indian Penal Code and applies only to J&K State.

provided other measures are taken to make it instrumental. No doubt, these Adalats will provide great respite to the rural poor from running from pillar to post in hostile townships, but it is equally important that they should also provide impartial justice. In order to achieve this, the following questions will have to be addressed

- (i) What measures are envisaged to train Panchayati Adalat members in administering justice according to the law?
- (ii) Is there a need for legal literacy programmes to be organized for the general masses so that they can take full advantage of these Adalats?
- (iii) Is it fair to load the secretary of the halqa with the additional responsibility of secretary of Panchayati Adalat?

PANCHAYAT ELECTIONS

Despite inhospitable security environment and desperate attempts from many to thwart the attempts of the Government to hold Panchayat elections, the State Government succeeded in conducting Panchayat elections during the first quarter of 2001 after a very long gap of 22 years. The election to the 2700 Sarpanch and 20500 Panch constituencies was conducted in a staggered electoral process by the State Election Authority on non-party basis and with a high degree of transparency, impartiality and fairness¹⁴.

The results of the Panchayat elections held present an interesting picture as given in Table III.99.

14 Sadhotra Ajay K. "Panchayats & J&K" National Convention of Panchayati Raj Representatives, 22-23 Dec., 2001, ISS, New Delhi.

Table III.99
Information regarding Panchayat Election J&K, 2001

District	No. of Blocks	No. of Pvts.	No. of Sarpanches elected	No. of Sarpanch vacancies	Total No. of Panches to be elected	No. of Panches elected	No. of vacancies of Panches	No. of Pvts. Notified by Govt.	No. of Pvts. vet to be notified
A. Kashmir Division									
Kupwara	9	224	168	58	1471	915	556	95	129
Baramulla	14	276	162	114	2148	902	1246	93	178
Leh	6	68	68	-	448	448	-	67	1
Kargil	7	65	65	-	453	453	-	65	-
Budgam	8	199	61	138	1444	315	1129	25	174
Srinagar	4	93	67	26	666	247	419	21	72
Anantnag	10	309	251	58	2242	1191	1051	121	188
Pulwama	6	236	202	34	1586	684	902	26	210
TOTAL	64	1470	1042	428	10458	5155	5303	518	952
B. Jammu Division									
Jammu	11	295	294	01	2448	2443	05	295	0
Kathua	08	183	182	01	1394	1391	03	182	1
Poonch	05	115	115	--	1028	1026	02	114	1
Udhampur	12	215	212	03	1840	1792	48	210	5
Doda	14	262	216	29	2004	1698	306	216	46
Rajouri	07	160	160	--	1376	1364	12	160	0
TOTAL	57	1230	1196	34	10090	9714	376	1177	53

Source : Reconstructed from the information received from Directorate of Rural Development, Srinagar/Jammu

The analysis in Table III.99 reveals that there are 1470 panchayats in Kashmir Division against 1230 in Jammu Division. It is very interesting to note that there are 952 Panchayats out of total of 1470 in Kashmir Division against 55 out of 1230 in Jammu Division which are yet to be notified by the Govt. Similarly there are 428 Sarpanch vacancies in Kashmir Division against 34 in Jammu Division. More interestingly, Kashmir Division has 5303 Panch vacancies out of a total of 10458 against 376 out of 10090 in Jammu Division. As such it does not present an encouraging picture particularly for Kashmir Division where more than 50 per cent panch seats are vacant. The Jammu Division seems to be much more comfortably placed.

Table III.100
Number of women elected Sarpanches & Panches (Jammu Division)

District	No. of women elected (Sarpanch)			Total	No. of women elected (Panch)			Total
	SC	ST	Others		SC	ST	Others	
Jammu	-	-	01	01	11	03	28	42
Kathua	-	-	01	01	06	01	16	23
Poonch	-	01	-	01	-	06	07	13
Udhampur	-	-	03	03	05	08	25	38
Doda	-	-	01	01	-	-	26	26
Rajouri	-	-	-	-	03	03	18	24
TOTAL	-	01	06	07	25	21	120	166

Source : Reconstructed from the information received from Directorate of Rural Development, Srinagar/Jammu .

The information in respect of number of Scheduled Castes, Scheduled Tribes and Women candidates returned through elections is available only for Jammu Division (Tables III.100 & III.101).

Table III.101
Number of SC/ST elected Sarpanches & Panches (Jammu Division)

District	No. of Sarpanch elected				No. of Panches elected			
	SC	ST	Others	Total	SC	ST	Others	Total
Jammu	57	14	223	294	682	127	1634	2443
Kathua	11	03	168	182	181	83	1127	1391
Poonch	-	52	63	115	-	425	601	1026
Udhampur	17	24	171	212	270	268	1254	1792
Doda	12	14	190	216	155	164	1379	1698
Rajouri	06	45	109	160	64	465	835	1364
TOTAL	103	152	924	1179	1352	1532	6830	9714

Source : Reconstructed from the information received from Directorate of Rural Development, Srinagar/Jammu.

An analysis of the information given in Table III.100 in respect of Jammu Division reveals that the picture in respect of women candidates elected is quite dismal, ranging from 0.5 per cent in respect of Sarpanches to 1.70 per cent in respect of panches. As far as election of SC/ST candidates is concerned, there are 29.68 per cent of them elected as Panches from SC/ST category against 21 per cent Sarpanches (Table III.101). It makes a strong case for reservation of women and SC/ST in panchayats.

The information collected through informal sources reveals that panchayats are not at all in a comfortable state of affairs on various counts. These, among others, include:

- A number of panches and sarpanches have become target of militancy and lost their lives, thus spreading a fear psychosis among others.
- In Kashmir Division more than 50 per cent panch seats are vacant and those in place hardly function.
- The panchayats as such are starved of funds and development schemes continue to be implemented by departmental functionaries.
- The devolution and delegation of power and authority to panchayats has not taken place, keeping them in a dysfunctional state of affairs.

CHALLENGES AND OPPORTUNITIES

The Panchayati Raj in Jammu & Kashmir presents a number of challenges inherent in them are the opportunities. These are:

1. *Functional devolution*

There are two major aspects of functional devolution viz., administrative and financial.

- (a) Administrative: The concept of self-governance cannot be understood unless the conflict between the developmental role now performed by the administrative machinery and the role envisaged for panchayats under the State Act is resolved. If panchayats are assigned a developmental role and greater autonomy, it would be necessary to introduce changes in the pattern of field administration. Many statutory powers now exercised by the field level bureaucracy may have to be transferred to the panchayats.

- (b) Financial : Local self-government carries no substance if the panchayats do not have at their command adequate resources to discharge various functions. Autonomy is closely related to economic independence. Panchayats have meagre incomes. No institution of self-government can perform any meaningful activity with such meagre resources. This is all the more necessary for a State like Jammu & Kashmir, where resources are scarce and they have to be spent in such a way, which will create a favourable impact on the development scenario in general and on the quality of life of the people in particular.

2. *Panchayats as Institutions of Local Self-Government*

An analysis of the State Act reveals that panchayats may emerge more as quasi-government institutions rather than instruments of vigorous local self-government. The supersession of halqa panchayat under Section 9 of the Act and removal of the chairperson and members of Panchayati Adalat under Section 52, relegates them to a subordinate position. The question arises as to what the parameters of competency are and why they are left to the opinion of the government. Why not let people or a higher tier of panchayat decide on such matters?

Similarly, not a single member of the District Development Board is directly elected. The government nominates the chairperson while MPs and MLAs are ex-officio members. Others include chairpersons of Block Development Councils, Town Area Committees and Municipal Councils. The impression one gets is that this important tier of Panchayati Raj at the district level is more like an extension of the government machinery than a real local self-government institution. To add credence to the institution of local self-government a provision can be made for the conduct of the election of the chairperson of DPDB.

3. *Provision of nomination by the State Government*

One fails to understand the necessity of retaining nomination quotas in the Act. Reservation of seats for marginalized groups has proved very successful throughout the country. If this is local self-government, why not leave it to the wisdom of the people to choose their representatives rather than impose government-nominated people?

4. *Multiple role of the VLW*

The Village Level Worker (VLW) has not only been made secretary to the halqa panchayat but also secretary of the Panchayati Adalat. On the one hand, the Act envisages the transfer of a number of development activities for planning and implementation to the halqa panchayat, but on the other there is hardly any planning apparatus available at the halqa panchayat level except in the person of the all-in-one VLW.

There is a provision under Rule 83 of the J&K Panchayati Raj Rules, 1996, for formation of committees comprising a panch and a professional departmental officer to advise and guide with regard to matters specified by the panchayat. The advice and guidance does not replace the main planning functioning. Therefore, there is a need to strengthen the planning apparatus at halqa panchayat level on one hand and to reduce the workload of the VLW on the other.

2. POVERTY AND RURAL DEVELOPMENT IN J&K

COMMUNITY DEVELOPMENT- A RETROSPECT

Rural India encompasses three-fourth of the country's population and is characterized by low-income levels and social and economic deprivation. Through the launching of Community Development Programme in 1952, rural transformation was given a direction in favour of increasing levels of production, distributing the gains of economic development more equitably and initiating institutional and attitudinal changes in favour of modernization. "The main focus of rural development in India in 1950s was on institution building in the form of cooperatives, panchayats etc. Cooperatives were thought to be the vehicle of socio-economic change. Promotion of agriculture, development of education and health, the principles of self-help, self-reliance and community spirit were the main elements of Community Development Programme (CDP)."¹ It was soon realized, however, that covering the entire country under CDP was not possible through shortage of funds and personnel. Hence, as recommended by GMFIC, the National Extension Service (NES) was launched in October 1953 with a reduced number of personnel and financial provisions so that development work proceeded essentially on the basis of self-help. After three years, the blocks covered under NES were converted into CDP blocks.

The State of Jammu & Kashmir joined the rest of the country in introducing these programmes. With the introduction of the Big Landed Estates Abolition Act, 1950, the State had already created a conducive structural environment for a major development intervention. It was expected that all these processes of change would lead to higher levels of living, especially of the poverty groups and in the general improvement of their quality of life. All these development initiatives received a setback with the summary dismissal of the State Government in 1953. However, the programmes continued to be implemented and raised a lot of expectations. It is true that CDP was the first comprehensive programme for socio-economic transformation of rural areas. It is also a fact that it succeeded in establishing, for the first time an organized administrative set-up at the national, state, district, block and village levels

1 Report on Rural Development in CIRDAP Member Countries-1992-93, CIRDAP, Dhaka.

for implementation of development programmes. It is equally true that the objective of self-reliance and people's participation could not be achieved for CDP also did not pay adequate attention to the objective of developing responsible and responsive leadership. In the State of Jammu & Kashmir, implementation of CDP gave rise to a new rural political elite who took full advantage of this development intervention. CDP was considered as an extension arm of the Government. As the Balwantrai Mehta Committee reported in 1959, CDP was a government programme with people's participation and not vice versa.

CDP TO IADP- A PARADIGM SHIFT

The crises in the economy in the early 1960s and lagging agricultural production necessitated a shift in emphasis in rural development from a comprehensive rural development as advocated under Community Development Programme to enhanced agricultural production. The result was the adoption of the Intensive Agricultural Development Programme (IADP) in 1960-61 and Intensive Area Programme (IAP) in 1964.² This also marked a shift in the IRD strategy from institutional dimension to technological dimension. As a result, food production of the country increased tremendously and India became self-sufficient in food. In the state of J&K, IADP was adopted in selected districts along with other states in the country, although it had to face its own peculiar problems in the adoption of new technology and subsequent mechanization of agriculture. "Agriculture in the State was practised on conservative lines. There were no real and serious efforts on the part of the cultivators to adopt new methods of cultivation or even to use high yielding varieties of seeds. The State Government's Agriculture Department introduced a scheme of 'improved agriculture implements' in the mid-sixties. It was realized that improved agriculture implements, machines and tools designed elsewhere in the country could not be adopted in local conditions without necessary modifications. In this connection, a number of such implements were brought from outside the State. It thus became evident that a rationale approach to the problem of designing and developing the improved implements suitable for the rugged topographical conditions of the State, is to develop the implements and machines incorporating the good features of those designed elsewhere and the indigenous ones if they had any".³

2 State of the Art – Integrated Rural Development in Asia and the Pacific (1987), CIRDAP, Dhaka.

3 Aslam, M. (1981) 'Social Implications of Technological Changes in Rural Kashmir', Inter-India Publications, Delhi.

The correctness of the approach was established when the first few improved implements developed on these lines, for instance, Shalimar Plough, Shalimar Puddar and Arched Ladders gave encouraging results. "Thereafter, a number of implements, tools and machines were designed, developed, tested at Government Agricultural Implements Workshop, at Shalimar in Srinagar. The highly undulating topography, crop growth, soil condition and management system demanded a careful designing of the implements as most of the conditions were different from other parts of the country. All these efforts to a large extent succeeded in meeting basic objective of increasing the agricultural production. As a result, the production of food grains in 1972-73 touched 9.2 lakhs tons. The area under high yielding varieties reached 2.57 lakhs hectares and the area under horticulture 57,000 hectares in 1972-73".⁴ The constraints of topography and small holding size, landlord-tenant relationship and other factors stood in the way of rapid advances in the sector and the benefits of modern technology, like improved variety of seeds, fertilizer and mechanization, could make their impact only in some areas. Further, the small and middle farmers could not take full advantage of the green revolution technology. The consequences were widening inequalities and a rising poverty incidence. Further, agricultural prosperity could not trickle down to disadvantaged groups of society. It called for a target group approach to developmental intervention. "It is claimed that the target group oriented policies introduced during the Fourth Five-Year Plan period (1969-74) were in fact the pace setter of the equity oriented rural development policies of the seventies and the eighties"⁵.

FROM TARGET GROUP TO EQUITY-ORIENTED APPROACH

The beginning of the 1970s therefore, witnessed in J&K the introduction of the Marginal Farmers and Agriculture Labourers Development Agency (MFAL) and the Small Farmers Development Agency (SFDA) programmes to provide credit and other technical assistance to the disadvantaged groups. This was followed by the Food For Work (FFW) programme in 1977, Integrated Rural Development Programme in (1978) National Rural Employment Programme (1980), Development of Women and Children in Rural Areas (DWCRA), Rural Landless Employment Guarantee Programme, Training of Rural Youth in Self Employment (TRYSEM), etc. All these were initiated and run in the state of J&K to improve the socio-economic conditions of various disadvantaged groups and backward areas. Poverty

4 Ibid

5 Report on Rural Development in CIRDAP Member Countries-1992-93, CIRDAP, Dhaka.

remained, as in other parts of the country, a major concern in the development arena of the State. At the national level it was witnessed that during the Sixth (1980-85) and the Seventh (1985-90) Five-Year Plans, rural development was considered synonymous with poverty alleviation. Achievement of growth, self-reliance, reduction of poverty and unemployment remained the broad goals of the development planning. A number of development interventions were made through self-employment programmes, provision of credit, extension support and subsidies. All these programmes and schemes were also introduced in the State of Jammu & Kashmir as in other parts of the country. Keeping in view the peculiar socio-economic and geographical conditions of the State, other State-specific development programmes were also undertaken by the State Govt. to develop rural physical infrastructure, improve health and sanitary conditions and to provide education to the deprived sections of the society.

AN ANALYSIS OF PROGRAMME IMPLEMENTATION

It will be useful to attempt an analysis of major rural development programmes mostly centrally sponsored, introduced in the State from time to time. This analysis is constrained by lack of information on the one hand and gaps and inconsistencies found in the data/information gathered from concerned departments of the State Government, on the other. It is also handicapped as no primary empirical data could be collected to substantiate findings to facilitate drawing of inferences. The report has depended on the outcome of available studies, although some of them could well be considered outdated in terms of time frame.

The rural development intervention has been mostly in the form of centrally sponsored schemes/programmes which have been subjected to extensive re-structuring and revamping during the past couple of years, particularly after 1999. The 1990s also witnessed introduction of number of new schemes, along with revamping of old ones. In some cases it created more confusion than clarity in the process of rural development. The State Development Report for Jammu & Kashmir being the first attempt of its kind, it was considered desirable to provide a contextual background of the rural development programmes/schemes (wherever available) along with their achievements to facilitate analysis.

CLASSIFICATION OF RURAL DEVELOPMENT PROGRAMMES

Since the commencement of Ninth Five-Plan in 1997-98, as many as 11 poverty alleviation schemes were found to be implemented in J&K State. These schemes could be categorized into five broad categories as follows:

- (a) Self-employment (Credit/Subsidy) Programme consisting of the following six schemes now revamped and re-structured into one programme called Swarnajayanti Gram Swarozgar Yojana (SGSY).
 - Integrated Rural Development Programme (IRDP)
 - Training of Rural Youth for Self-Employment (TRYSEM)
 - Development of Women and Children in Rural Areas (DWCRA)
 - Million Wells Scheme (MWS)
 - Supply of Improved Toolkits for Rural Artisans (SITRA)
 - Ganga Kalyan Yojana (GKY).
- (b) Employment Programme consisting of two schemes, namely, Jawahar Rojgar Yojana (JRY), now renamed as Jawahar Gram Samridhi Yojana (JGSY) and Employment Assurance Scheme (EAS).
- (c) Rural Housing Programme consisting of only Indira Awas Yojana (IAY).
- (d) Area Development Programme consisting of two schemes, namely, Drought Prone Area Programme (DPAP) and Desert Development Programme (DDP).
- (e) Land Reforms.

(a) Self-employment Programmes

The programme comprises four sub schemes, viz. IRDP, TRYSEM, DWCRA and Establishment of Mini ITIs being funded on a 50:50 basis between centre and state in the district sector. Since April 1999, the schemes under self-employment programme including IRDP have been restructured and a new programme known as Swarnajayanti Gram Swarozgar Yojana (SGSY) has been launched. Unlike previous self-employment schemes, the benefit of SGSY will now be available only to Self-Help Groups. The unspent balances as on 01-4-99 under the erstwhile self-employment schemes will be pooled under the new SGSY and utilized as per the new guidelines aimed at Self-Help Groups to be formed and trained. Therefore, in the analysis on self-employment programmes, various components of self-employment programmes, i.e., IRDP, TRYSEM, DWCRA, MWS, etc., which were in operation till April 1999 will be discussed and thereafter replaced by SGSY.

Table III.102
Self-employment Programmes Plan Targets & Achievements
(8th & 9th Plans)

Programme	J a m m u		9 th Plan Target (1997-2002)	K a s h m i r		9 th Plan Target (1997- 2002)
	8 th Plan Period (1992-97)	Achievement		8 th Plan Period (1992-97)	Achievement	
IRDP (No. of beneficiaries) (Thousands)	73.5	27.56	52.00	45.00	25.92	50.00
TRYSEM (Candidates Trained) (Thousands)	11.40	8.65	11.00	10.00	8.85	10.00
DWCRA (Groups Formed)	2168	1238	1320	2000	1662	2000
JRY Mandays generated (in lakh)	180.00	125.21	125.00	180.00	101.12	190.00
No. of works completion	-	21338	23000	-	16794	20000
IAY No. of houses completed	4400	7301	15000	15000	16749	12000
MWS No. of Works	-	7024	6500	-	2173	2000
EAS Mandays generated (in lakh)	-	183.88	475.00	-	97.24	300.00
Works completed	-	14849	15,000	-	11665	20,000

Source : 9th Five-Year Plan, Jammu & Kashmir

Integrated Rural Development Programme (IRDP)

One of the major rural development interventions during the late 1970s has been introduction of Integrated Rural Development Programme commonly known as IRDP. The scheme was introduced in the State on 2nd October 1980 on a 50:50 sharing pattern. It envisaged creation of productive assets and inputs in the primary, secondary and tertiary sectors through financial assistance by way of government subsidy and term credit from financial institutions. The basic objective was to bring the rural families living below the poverty line (BPL) above the poverty line by taking up different activities of income generation. Under this scheme, subsidy was provided to small and marginal farmers, Scheduled Caste/Scheduled Tribe, educated unemployed youth (8th pass or fail) at different rates. Besides, 50 per cent of the project cost subject to a maximum of Rs. 1.25 lakh was also admissible for group ventures of 5 persons belonging to BPL families. As per the results of the survey conducted with 1991-92 as the reference year, a total of 7.86 lakh families

(including the Ladakh region) fell under the category of 'below poverty line' as per the normative basis of income level of Rs. 11,000/- per annum which works out to 57 per cent of the total households.⁶ This is quite a substantial number, although there are contradictory figures available, an issue will be discussed in the later part of this chapter.

As far as development assistance under IRDP is concerned, the available data does not provide an encouraging picture (Table III.102). In terms of the number of beneficiaries covered under the scheme, the data reveals that against the target of 73,500 for 8th Plan period in Jammu, only 27,560 beneficiaries were covered. The target for 9th Five-Year Plan was fixed to cover 52,000 beneficiaries. Similarly in Kashmir Division, against a target of 45,000 for the 8th Plan period, only 25,920 beneficiaries were covered. The target for the 9th Five-Year Plan period was fixed at 50,000 beneficiaries to be covered during the 9th Plan period.

There were a lot of gaps and inconsistencies in the information and data provided by the concerned departments about the actual expenditure and physical targets of various self-employment programmes implemented in the Jammu & Kashmir State. In order to maintain possible consistency in figures, data and information given in the plan document were used here. Table III.103 provides outlays, expenditure and target achievement in respect of IRDP in both Jammu and Kashmir Divisions. It is very interesting to note that in both these divisions although expenditure was slashed down to 1/3rd and 1/4th in 1998-99 for Jammu and Kashmir respectively, the physical achievements in terms of beneficiaries assisted have been more than the target fixed, a peculiar situation indeed. When the data supplied by the respective Directorates of Rural Development was looked into, it created further confusion about implementation of these important programmes.

6 9th Five-Year Plan for Jammu & Kashmir, Planning Department, J&K.

Table III.103
Outlay-Expenditure and Physical Target-Achievement
Integrated Rural Development Programme (IRDP)

A. Jammu

Year	Outlay* (Rs.)	Expenditure* (Rs.)	Beneficiaries Assisted	
			Target	Achievement
1996-97 base level ach.	--			5,524
1997-98	376.00	283.82	10,000	10,000
1998-99	376.00	101.66	5693**	9,000

B. Kashmir

Year	Outlay* (Rs)	Expenditure* (Rs)	Beneficiaries Assisted	
			Target	Achievement
1996-97 base level ach.	--			25,916
1997-98	287.00	268.77	10,000	7,448
1998-99	327.34	79.79**	10,000	11,600

Source: Annual Plan 1999-2000 , Jammu & Kashmir.

* Outlay & expenditure is for IRDP and allied programmes.

** It seems inconsistent.

Training of Rural Youth for Self-employment (TRYSEM)

The objective of the scheme was to provide and upgrade basic technical and managerial skills of rural youth who fell below the poverty line, to enable them to take up self-employment and wage-employment in agriculture, industries, service and business activities. Under this scheme, training to rural youth, both men and women, in the age-group of 18-35 belonging to identified BPL families, was provided for a period of six months in Govt., other Govt. recognized institutions and through master craftsmen. The age limit in respect of inmates of orphanage was 16 to 45 years. The trainees were paid a stipend at various rates depending upon their residence. As per guidelines, 50 per cent of the trainees were to be SC/ST and 3 per cent disabled persons.

The analysis of the data reveals that against a target of 11,400 for the 8th Plan period, only 8650 youths were trained during the said period in Jammu Division. The target for the 9th Plan period was to train 11,000 youth. Similarly, in the Kashmir Division, against a target of 10,000 for the 8th Plan period, only 8850 youth were trained and the target for the 9th Plan period was to train 10,000 youth under the scheme.

Table III.104
Outlay-Expenditure and Physical Target-Achievement Training of Rural Youth for Self-Employment (TRYSEM)

A. Jammu

(Rs. in lakh)

Year	Outlay (Rs.)	Expenditure (Rs.)	Youth Target	Trained Achievement
1996-97 base level	--	--	--	2670
1997-98	50.00	25.09	2700	2700
1998-99	33.45	8.97	1640	2700*

B. Kashmir

1996-97 base level	--	--	--	8,853
1997-98	57.00	57.00	2,000	1,100*
1998-99	29.57	8.05	2,800	1,139

Source: Annual Plan 1999-2000, Jammu & Kashmir.

*It sounds inconsistent with expenditure figures.

Despite efforts to get a comparative data for both the divisions, what was available was only plan document which provided some information consistent for both the divisions. The analysis of Table III.104 also does not provide any logic for inherent inconsistencies. During 1997-98 the target for Jammu Division had been met by half of the financial outlay, while as in Kashmir Division, even after spending the full financial outlay, only half of the target had been achieved. The figures given for 1998-99 create further confusion. In the case of Jammu, the physical achievement was double the target while expenditure was one-third of the financial outlay. Obviously, there is some discrepancy either in the figures or in the implementation itself.

Development of Women & Children in Rural Areas (DWCRA)

DWCRA, a sub-scheme of IRDP, was started in 1983-84 with the primary objective of focusing attention on women members of rural families. It was a thrust area programme for the upliftment of rural women hailing from identified families living below the poverty line. Earlier, up to 1993-94, the scheme was under implementation in selected districts only. Subsequently, the coverage of the scheme was extended to cover all the districts though women field staff was not created for all the districts during the 8th Plan period but was proposed to be created during the 9th Plan period. Under this scheme, women groups were organized and imparted training in different traditional activities out of TRYSEM funds. These groups are encouraged to take up

income-generating activities for which a revolving fund at the rate of Rs. 25,000/- per group is provided. Under the scheme, childcare activities have also been included. Activities include filling up critical gaps in the area of immunization, nutrition, etc., for the children of DWCRA group members with special focus on the girl child to reduce gender disparity. The analysis of the data reveals that against a target of 2,168 groups, only 1,238 groups were formed during the 8th Plan period in Jammu Division and the target for the 9th Plan period was fixed at 1,320. Similarly, in Kashmir Division against a target of 2,000 groups to be formed during 8th Plan period, only 1,662 groups were formed and the target for 9th Plan period was fixed at 2,000.

Table III.105
Outlay-Expenditure and Physical Target-Achievement
Development of Women and Children in Rural Areas (DWCRA)

A. Jammu

(Rs. in lakh)

Year	Outlay (Rs.)	Expenditure (Rs.)	Groups Formed	
			Target	Achievement
1996-97	--	--	--	406
1997-98	40.05	27.00	336	340
1998-99	32.00	12.69	340	370*

B. Kashmir

1996-97 base level	--	--	--	1662
1997-98	39.00	39.00	300	619*
1998-99	48.75	48.75	600	445

Source: Annual Plan 1999-2000, Jammu & Kashmir.

* inconsistent with expenditure figures.

A look at Table III.105 further strengthens the belief that there is considerable inconsistency in terms of expenditure on the one hand and the targets achieved on the other.

Million Wells Scheme (MWS)

The objective of the scheme is to provide assistance for digging of irrigation wells to the poor, small and marginal farmers living below the poverty line, especially persons belonging to SC/ST and freed bonded labourers. This is a beneficiary-oriented scheme being implemented in J&K wherein up to Rs. 30,000/- is provided as subsidy for digging up open wells. In the areas where digging of wells is not feasible due to geographical factors, the amount available under the MWS is utilized for other schemes of minor irrigation like irrigation tanks, water harvesting structures,

land improvement, etc., for the benefit of poor, small and marginal farmers. As per the information available, 7024 works were completed during the 8th Plan period under the scheme in Jammu Division and a target of 6,500 works was set to be achieved during 9th Plan period. Similarly, in Kashmir Division 2173 works were completed during the 8th Plan period and a modest target of 2000 works was set for the 9th Plan period. The targets achieved in Kashmir Division till 1999 are given in Table III.60.

Table III.106
Million Wells Scheme (Kashmir)

(Rs. in lakh)

S. No.	Period	No. of wells constructed	Area covered Hectt.	Expenditure Incurred (Rs.)
1.	1996-97 (9/1996-3/1997)	423	120.80	94.45
2.	1997-98	635	317.00	135.27
3.	1998-99	797	463.50	151.02
4.	1999-2000	359	228.03	34.50
Total		2214	1129.33	415.24

Source: Directorate of Rural Development, Kashmir.

Table III.106 shows the number of wells, constructed area covered and the expenditure incurred in respect of Kashmir Division. It is evident that there has been a sharp decline between 1998-99 and 1999-2000, possibly because of revamping of the scheme and its restructuring from April 1999. Separate information about Jammu Division was not available, although MWS was made an independent scheme along with IAY.

Ganga Kalyan Yojana (GKY)

The scheme was launched in all the districts of the country w.e.f 18 February 1997 as a new scheme under the IRDP. From 1997-98 it was made an independent scheme. With the introduction of this scheme, bore-wells/tube-wells scheme under IRDP and MWS was subsumed under Ganga Kalyan Yojana and all the bore-wells/tube-wells schemes were to be funded under this scheme. An allocation of Rs. 6 lakh was proposed under the scheme for the provision of subsidy for the year 1999-2000 for Kashmir Division. In Jammu Division no allocation was proposed as the scheme had not taken up because of its non-viability. The scheme now has become part of the SGSY.

Swarnajayanti Gram Swarozgar Yojana (SGSY)

There were a number of schemes being implemented under the self-employment category. These were viewed as separate programmes in themselves. This resulted in a lack of inter-programme interaction, absence of desired linkages among these programmes inter se and their implementation diverted attention to achieving individual programme targets rather than focusing on a substantive issue of sustainable income generation. To rectify the situation, the Govt. of India decided to re-structure the self-employment programmes. A new programme known as Swarnajayanti Gram Swarozgar Yojana (SGSY) was launched from April 1999. This is a holistic programme covering all aspects of self-employment like organization of the poor into self-help groups, training, credit, technology, infrastructure and marketing. The earlier programmes like IRDP, TRYSEM, DW CRA, SITRA, MWS and GKY are no longer in operation.

Table III.107
Financial Outlay and Expenditure SGSY (Jammu)

(Rs. in lakh)

Year	Outlay			Releases		Total Availability including UBS & Misc. Receipt	Expdt.
	CS	SS	Total	CS	SS		
1999-2000	286.91	95.64	382.55	181.41	61.12	433.80	200.15
2000-2001	292.48	97.49	389.97	30.74	92.39	372.20	286.30
2001-2002	169/25	62.88	232.13	133.46	37.71	290/513	265.942

Source: Directorate of Rural Development, Jammu.

Table III.108
Physical Target and Achievement, SGSY (Jammu)

(Rs in lakh)

Year	Target	No. of cases sponsored to bank	No. of cases sanctioned	Unit established		Rev. fund provided by		Credit mobilization		
				Individual	SHG	Deptt.	Bank	Credit	Subsidy	Total
1999-2000	3795	3057	1126	1109	-	-	-	-	-	270.95
2000-01	2765	4553	1742	1166	2	312	-	966.84	95.52	562.36
2001-02	2765	4623	1977	936	1955	302	-	683.478	142.17	825.648

Source: Directorate of Rural Development, Jammu.

During 2000-2001 and 2001-2002 (up to December 2001) a total of 459 and 872 Self Help Groups respectively have been framed, out of which 135 SHG have passed Grading-II. However, it has been reported that banks provided credit only to

16. It has been observed that banks do not come forward for providing credit to the cases sponsored by the Department, which has greatly effected the achievements.

Under infrastructure development, an amount of Rs. 69.35 lakh and Rs. 18.97 lakh was provided during 2000-2001 and 2001-2002 (up to December 2002) respectively.

Table III.109
Achievements and Expenditure, SGSY (Kashmir)

Period	Total Benf. covered	SHGs formed	Loan raised	Subsidy	Exp. Incurred Others	Total
1999-2000	4513	-	456.64	219.56	175.37	404.93
2000-01	3829	-	933.03	256.18	56.71	312.89
2001-02	3973	2542	1265.68	328.19	121.35	449.54

Source: Directorate of Rural Development, Kashmir.

Table III.109 shows that 2,542 self-help groups were formed during 2001-2002. The credit mobilization under loan raised has shown substantial progress. It seems to be just the reverse of what has been reported for Jammu.

b) Wage-employment Programmes

Jawahar Rojgar Yojana (JRY)

The scheme was introduced in the State during April 1989 with a funding pattern of 80:20 between Centre and State. Up to the year 1996, IAY and MWS were part of JRY. Thereafter these schemes were segregated from JRY and treated as independent schemes, the objective remaining to generate gainful employment for underemployed and unemployed men and women in rural areas and to create community and social assets particularly in favour of the rural poor for their direct and continuing benefits. As per the data available, against a target of generating 180 lakh mandays during the 8th Plan period only 125.21 lakh mandays were generated in Jammu Division. The target for the 9th Plan period was fixed at 1.33 lakh mandays. Similarly, for Kashmir Division against a target of 180 lakh mandays only 101.12 lakh mandays were generated during the 8th Plan period and the target of 108 lakh mandays was fixed for the 9th Plan period.

Table III.110
Financial Outlay and Expenditure, JGSY (Jammu)

(Rs. in lakh)

Year	Outlay		Releases		Total Availability Including UBS & Misc. Recpt	Expenditure	
	CS	SS	Total	CS			SS
1997-98	483.80	113.80	597.60	681.01	103.18	820.78	727.09
1998-99	617.88	154.47	772.35	420.14	181.25	705.53	600.93
1999-2000	492.01	164.00	656.01	261.85	37.92	362.71	329.86
2000-2001	460.74	153.58	614.32	465.61	189.84	695.30	663.22
2001-2002	523.78	164.00	687.78	523.75	260.75	806.00	802.033

Source: Directorate of Rural Development, Jammu.

As far as financial outlay and expenditure for JGSY (earlier JRY) for the Jammu region is concerned, Table III.110 shows that expenditure against availability of funds has been more than 90 per cent, which is a healthy trend. It has, to a great extent, been substantiated by the physical achievements as shown in Table III.111.

Table III.111
Physical Achievements, JGSY (Jammu)

Year	No. of works take up	No. of works completed	Mandays generated (in lakh nos.)
1997-98	4748	4115	12.99
1998-99	4143	3032	9.44
1999-2000	1955	1400	4.56
2000-2001	3454	2729	7.88
2001-2002	5924	5747	12.78

Source: Directorate of Rural Development, Jammu.

During 1997-98, the number of mandays generated reached 12.99 lakhs, but fell to 4.56 lakh during 1999-2000. It again started picking up and reached 12.78 lakh mandays during 2001-2002.

As far as implementation of JGSY in the Kashmir Division is concerned, the number of mandays generated and expenditure incurred is shown in Table III.112.

Table III.112
Achievements and Expenditure, JGSY (Kashmir)

Period	Total Works Compl.	Exp. (Rs.) in lakh	Man-days generated
1996-97 (9/1996-3/97)	2367	421.68	14.89
1997-98	2934	749.59	18.92
1998-99	3567	872.37	18.54
1999-2000	1559	466.20	9.03
2000-01	1997	839.56	8.78
2001-2002	2573	886.53	8.73
Total	14997	4235.93	78.89

Source: Directorate of Rural Development, Kashmir.

The table shows that there has been consistency in terms of generation of mandays during 1997-98 and 1998-99 when it touched 18,92. It came down sharply to 9.03 in 2000-2001 and further down to 8.73 lakh mandays in 2001-2002, although expenditure remained at the 1998-99 level. This is something which needs to be studied in detail to arrive at conclusive inferences.

Employment Assurance Scheme (EAS)

The scheme was launched during the year 1993-94 in the state. Initially, 22 blocks of Udhampur and Doda districts in Jammu Division and 12 blocks of Kashmir division were covered. Subsequently during 1996-97, it was extended to all the 119 blocks including 12 blocks of Leh and Kargil. Under the scheme, 100 days employment was to be assured to two members of a family (man and woman) in the age group of 18-60 years from amongst the people living below the poverty line in rural areas during lean agriculture season. Under the scheme, registration of beneficiaries was carried out to cater to the most backward areas where alternative means of avocation were conspicuous by their absence.

The Govt. of India had agreed to some relaxation in regard to the weightage to be accorded to the various sectors, keeping in view peculiar conditions prevailing in the State. Besides construction of primary schools, anganwadis, link roads, irrigation khuls, afforestation and horticultural programmes, efforts were made to construct building for other sectors like that of health, sub-centres, panchayat ghars, ISM centres, veterinary centers, etc. As per the information and data available, there were 183.88 lakh mandays generated during the 8th Plan period under the scheme in Jammu division. The target for the 9th Plan period was fixed at 475 lakh mandays. In Kashmir Division 97.41 lakh mandays were generated during the 8th Plan period and the target for the 9th Plan was fixed at 3000 lakh mandays. The financial outlays, expenditure and physical achievements of EAS in Jammu Division from 1997-2002 are given in tables III.113 and III.114.

**Table III.113
Financial Outlay and Expenditure, EAS (Jammu)**

Year	Outlay			Releases		Total Availability	Expenditure
	CS	SS	Total	CS	SS		
1997-98	4560.00	1250.00	5810.00	3140.00	1199.85	4492.08	4407.83
1998-99	4560.00	1165.60	5725.60	2280.00		2386.65	2378.73
1999-2000	2280.00	570.00	2850.00	766.32	285.00	1196.88	1144.78
2000-2001	338.26	112.76	451.02	917.63	115.25	1095.82	1020.78
2001-2002	596.31	570.00	1166.31	596.31	443.00	1150.826	1141.027

Source: Directorate of Rural Development, Jammu.

Table III.114
Physical Achievements, EAS (Jammu)

Year	No. of works take up	No. of works completed	Mandays generated (in lakh nos.)
1997-98	15419	10676	74.35
1998-99	12439	7346	35.88
1999-2000	5535	2654	15.49
2000-2001	4175	2950	13.04
2001-2002	5066	4555	12.53

Source: Directorate of Rural Development, Jammu.

The Scheme was supposed to play a predominant role in generating wage employment and in the creation of durable assets like school buildings, community centres, passenger sheds, link roads, etc. Tables III.13 and III.14 show that although there has been consistency as far as availability of funds and expenditure was concerned, there seems to a big gap between total outlay and availability of funds. During 1998-99, it seems that the scheme was implemented without state share. As far as physical achievements are concerned, Table III.14 shows a sudden fall in terms of mandays generated from 35.88 lakh in 1998-99 to 15.49 lakh mandays in 1999-2000 and since then it has been going down. The achievements and expenditure of EAS in Kashmir Division are shown in table III.115 below.

Table III.115
Achievements and Expenditure, EAS (Kashmir)

Sl. No	Period	Works Completed	Exp. (Rs.) in lakhs	Man-Days generated
1.	1996-97 (9/1996-3/97)	4807	2187.00	32.41
2.	1997-98	10825	4892.34	56.82
3.	1998-99	9006	3257.22	38.44
4.	1999-2000	4518	1058.77	10.77
5.	2000-01	3328	1219.44	12.71
6.	2001-2002	3108	1243.35	10.30
	Total	35592	13858.12	161.45

Source: Directorate of Rural Development, Kashmir.

There appears to be a lot of similarity in terms of mandays generated between the two divisions of the State of Jammu & Kashmir. In both cases the generation of mandays has sharply declined from 1999 to 2000. In the case of Kashmir Division, the data in the table show that it dropped from 56.82 lakh in 1997-98 to 38.44 lakh in 1998-99 and further down to 10,77 lakh in 1999-2000. In the absence of the target figures, it is difficult to draw inferences in terms of target—achievement ratio. However, it is established that there is a declining trend.

Sampoorna Gramin Rozgar Yojana (SGRY)

The programme, a merger of EAS and JGSY, will be implemented as a centrally sponsored scheme on a 75:25 sharing basis. Food-grains are to be provided under this scheme free of cost but cost of their transportation is expected to be borne by the state Government.

The objective of the scheme is to provide wage employment in rural areas and food security along with creations of durable community social and economic assets and infrastructure development.

The SGRY will be available for all the rural poor who are in need of wage employment. Preference is to be given to the poorest among the poor, Scheduled Caste/Scheduled Tribes and parents of child labour withdrawn from hazardous occupations.

Under the scheme, 5 kg of foodgrains are made available per manday at BPL rates and balance wages are paid in cash. During 2001-2002 the Jammu division has been allotted foodgrains worth Rs.15 crore. The district-wise lifting from FCI godowns from District head quarters has already started.

c) *Rural Housing Programme*

Indira Awaas Yojana (IAY)

Originally, the scheme aimed at providing shelter to the houseless rural poor belonging to SC/ST communities only. Later, during 1993-94, the scheme was also extended to cover other weaker sections below poverty line. In the State of J&K, the resources available under the state rural housing scheme are also dovetailed with IAY for provision of houses free of cost to the poorest of the poor houseless families belonging to SC/ST and other weaker sections. In terms of physical achievements, the analysis of the data shows that against a target of 4,400 houses to be built during the 8th Plan period in Jammu, 7301 houses were built and the target for the 9th Plan period was fixed at 15000. Similarly, in Kashmir Division, against a target of 15,000 houses to be built during the 8th plan period, 16,719 houses were built. A target of 12,000 houses was set for the 9th Plan period. It seems that this is one scheme where State has exceeded the target, perhaps by dovetailing the resources available with the State Rural Housing scheme with IAY.

Table III. 116
Outlay, Expenditure and Achievements Indira Awas Yojana (IAY)-Jammu
(Rs. in lakh)

Year	Outlay			Releases		Total Availability including UBS & Misc. Recept	Expenditure	No. of houses constructed
	CS	SS	Total	CS	SS			
1997-98	300.45	213.87	514.32	420.39	189.62	623.92	433.05	2297
1998-99	469.70	279.99	749.69	328.79	173.49	703.56	703.56	1770*
1999-2000	300.45	213.87	514.32	--	67.37	381.21	328.55	2136
2000-2001	300.45	100.15	400.60	26.83	71.29	157.49	139.99	1074
2001-2002	294.88	100.15	395.03	355.80	100.15	475.082	472.276	2382

Source: Directorate of Rural Development, Jammu.

* Inconsistent with expenditure.

Table III.117
Achievements and Expenditure Indira Awas Yojana
(Kashmir Division) (1996-2002)

(Rs. in lakh)

Year	Houses Constructed			Expenditure Incurred
	SC/ST	Other BPL	Total	
1996-97 (9/1996-3/1997)	365	4300	4665	558.09
1997-98	751	3975	4726	536.29
1998-99	292	4572	4864	461.36
1999-2000	210	3590	3800	409.17
2000-2001	641	2481	3122	210.50
2001-2002	1335	3113	4448*	600.60

Source: Directorate of Rural Development, Kashmir.

* Not consistent with expenditure.

Tables III.116 and III.117 show achievements in terms of houses constructed and expenditure incurred. There is an evident inconsistency in the number of houses constructed and the expenditure incurred. This can be seen for 1998-99 in respect of Jammu and 2001-2002 in respect of Kashmir Division. It assumes significance because the amount provided under IAY to BPL families for constructing houses is fixed.

Credit-cum-Housing Subsidy Scheme

This is a new scheme launched during 1999-2000 by Govt. of India. The aim of the

scheme is to cover households (BPL and above it) who have not been covered under IAY as either they do not fall within the range of eligibility or due to the limits imposed by the available budget. The scheme has been introduced based on part credit and part subsidy.

The target groups under the scheme are rural households having an annual income of up to Rs. 32,000/-. However, there is special preference to the BPL families. Kathua and Poonch have been selected in Jammu Division to implement the scheme in the first phase. The Additional Deputy Commissioner of the district has been nominated as overall incharge of the scheme. The details of its achievements in two selected districts of Jammu Division are given in Table III. 118.

Table III.118
Credit-Cum-Housing Subsidy Scheme Details of
Achievements in Kathua & Poonch Districts

District	Releases			No. of cases identified	No. of cases sanctioned
	CS	SS	Total		
Kathua	1.20	3.66	4.86	82	4
Poonch	2.35	0.78	3.13	120	20*

Source: Directorate of Rural Development, Jammu.

* Inconsistent with availability of funds.

The data given in the table shows a wide gap between number of cases identified and the number of cases sanctioned. It is difficult to attribute it to lack of funds, because of inconsistency in the number of cases sanctioned and availability of funds in respect of Poonch.

(d) Area Development Programme

Drought-prone Area Programme (DPAP)

The Drought-prone Area Programme aims at making concentrated efforts to prevent drought and soil erosion through an integrated approach involving protective and preventive measures on watershed basis. In Jammu and Kashmir State, the programme is implemented in all the 14 CD Blocks of Doda District and in eight out of 12 CD Blocks of Udhampur District. It is a centrally sponsored scheme and is shared on a 50:50 basis by Government of India and State Government, to be implemented as per guidelines and expenditure norms evolved by the Ministry of Rural Development.

Drought-prone Area Programme, Udhampur

It is very interesting to note from the information provided about DPAP Udhampur that during the 8th Plan period, 13 watersheds were completed and an almost equal

number (14) remained incomplete. Since the inception of the programme, an area of 23,197 hectare up to 1996-97 stands treated, of which 6,977 hectare was treated under the scheme, e.g., Soil Moisture and Water Conservation Forestry and Pasture Development, Water Resource Development, Social Forestry, Horticulture and Sericulture.

There were 82 watersheds covering eight DPAP Blocks proposed for the Ninth Five Year Plan but keeping in view the financial ceiling, it is reported that initially the work was executed in 32 watersheds, besides completing the balance work in 12 old incomplete watersheds. An amount of Rs. 562 lakh was allotted for the Ninth Plan of which Rs. 460.00 lakh was capital component and Rs. 102 lakh revenue component. As per the planning document, the following physical targets were fixed for the 9th Five-Year Plan:⁷

Schemes Area proposed to be treated /covered:

- (a) Soil, Moisture & Water Conservation; (7980 hectare)
- (b) Water Resources Development (3240^{''});
- (c) Forestry (4320);
- (d) Pasture Development (2160^{''});
- (e) Raising of Nurseries (660^{''});
- (f) Horticulture Development (1728^{''});
- (g) Sericulture Development (1512^{''}).

(Figures in brackets indicate physical targets)

During 1997-98 the concerned agency was authorized to execute the DPAP works on old guidelines operative prior to 1.4.95. Against the approved allocation of Rs.296.79 lakh, an amount of only Rs.158.62 lakh was reportedly spent during 1997-98. This was because the approved funds were, reportedly, not fully released and Rs.97.12 lakh remained balance to be paid as liabilities during 1998-99. During 1998-99 the concerned agency was again authorized to execute the DPAP works on old guidelines operative prior to 1.4.95. Accordingly, the DPAP plan for 1998-99 to execute DPAP works in 32 watersheds located in 8 DPAP blocks was formulated.

For the year 1999-2000, DPAP plan amounted to Rs. 107.15 lakh (state share only) out of which Rs. 19 lakh was proposed under project administration and Rs.109.58 lakh for execution of works in ongoing 32 micro watersheds.

7 9th Five Year Plan & Annual Plan, 1999-2000, J&K Government

Drought-prone Area Programme, Doda

In Doda district, during the Ninth Plan, it was envisaged to cover 96 watersheds in four blocks with a provision of Rs. 890.30 lakh. It is reported that there was an amount of Rs. 90.30 lakh as unspent balance available with the DPAP Agency and Rs.126 lakh for Project Administration.

‘After 1/4/1996 an attempt was made to implement the programme through WDTs/ Committees and a number of WDTs/Committees were constituted in 4 blocks of the District namely Bhaderwah, Thathri, Bhallessa and Doda. It is reported that an amount of Rs. 30.00 lakhs was also advanced to the WDTs Bahderwah and Thathri blocks for implementation of the programme as per Revised guidelines. Due to the weak NGOs system and non availability of qualified technical personnels in rural areas, the programme reportedly failed badly at the grass root level and the money was misutilised. Subsequently, the WDTs/Committees were superseded by the then Chairman DPAP agency Doda (District Development Commissioner Doda)’⁸.

It is further reported that for the year 1998-99, the Government of India again permitted implementation of the DPAP Programme as per guidelines operative before 1.4.1995. The Planning and Development Department accordingly allocated Rs. 151 lakh for the year 1998-99. Reportedly, the plan was formulated for Rs. 309.28 lakh and placed before the governing body for its approval, which agreed to 6 blocks instead of 14 blocks. Against this a state share of Rs. 51 lakh only was released. It is reported in the planning document that the Central Government neither released its share for 1998-99, nor 2^d instalment of Rs. 72.50 lakh for the year 1997-98. The result was that the targets fixed for 1998-99 were achieved to the extent of 50 per cent only. It is necessary to know the reasons for non-release of funds by the Central Government, the mis-utilization of funds as reported above being one, an area which needs to be addressed.

(e) Land Reforms

The Jammu & Kashmir State has the distinction of introducing land reform measures of far-reaching consequences as back as 1951. This created a congenial atmosphere for subsequent reforms. In order to sustain these reforms, there was a need to strengthen the system of updation of land records. As against the stipulated

⁸ Annual Plan for 1999-2000, Jammu & Kashmir P.275

requirement for carrying out settlement operations at an interval of 20 to 25 years, this work has fallen in arrears and no settlement had taken place for about 70 years in the State. A scheme for carrying out settlement operations was approved under the 8th Five-Year Plan. Due to the intricate nature and the wide expanse of activity entailed in the settlement operations, particularly in hilly areas, the whole scheme was expected to take more than a decade. As per records, the settlement operations had commenced in 10 out of 59 tehsils in 1991 as a first phase. Subsequently, two more tehsils were notified for settlement operations during 1992-93. The tehsils covered are: Jammu, R.S. Pora, Hiranagar, Udhampur and Ramban in Jammu Division and Pulwama, Budgam, Chadora, Kulgam, Ganderbal, Leh and Kargil in Kashmir Division. Due to the adverse law-and-order situation in the State, the progress in the initial years was quite tardy. This process of settlement operation reportedly got accelerated from the year 1994-95 after training the staff at different levels of operations.

Since the settlement operations engaged major attention during the 8th Plan period, the major thrust of the strategy envisaged for the 9th Plan was obviously to lend speed to the settlement works in order to cover the whole of the state within a period of 10 years. It was also proposed to extend the work of settlement to cover all the Districts in a phased manner by organizing special teams to carry out the measurement work which was considered the most critical component of the scheme. The record work could have been taken up so as to complete the settlement within two Plan periods. The process of computerization of the data was initiated simultaneously so that durability and authenticity of records could be ensured. The major components of the scheme of settlement included building of infrastructure facilities for training, upgradation of the Training Institutes and the Record Rooms, provision of facilities to Patwar Khannas at Patwar halqa level and to provide a backup of logistic arrangements for these institutions. The scheme of strengthening of Revenue Administration and land Records was funded on a 50:50 basis. It is reported that the Revenue component was fully borne by the State Government. Other components of strategy included Aerial photographic Survey, use of imagery Satellite and introduction of palm-top and Note Book computers.

The proposed outlay for the 9th Plan was Rs. 31.20 Crore. The outlay for 1999-2000 was Rs. 931.53 lakh out of which Rs. 664.96 lakh was earmarked as capital component. The schemes expected to be taken up included the following:⁹

Direction and Administration: It was considered essential to position additional staff for efficient conduct of settlement operations in a phased manner. The outlay on salaries for the 9th Plan was Rs. 2337.00 lakh. Keeping in view the necessary requirements, an amount of Rs. 664.96 lakh was earmarked for the year 1999-2000.

Construction of Patwar Khannas: It is reported that out of 1491 halqas in the State, 150 were provided buildings of their own. As a step towards upgradation visualized under the centrally sponsored scheme, the construction of patwar Khannas was taken up. The scheme was implemented on sharing basis between the State Government and Government of India. An amount of Rs. 72 lakh was approved during the financial year 1999-2000.

Purchase of Survey equipment/machinery: As a step towards modernization, it was planned to deploy new techniques of mapping by introducing the theodolite system. It is reported that currently 28 E.T.S. (Electronic Total Stations) are in operation in the field. This scheme is also under execution on a sharing basis between Central Government and State Government. An amount of Rs. 45 lakh was earmarked during the financial year, 1999-2000.

Revenue Record Rooms and Upgradation Grants: The availability of adequate infrastructure plays an important role in the successful implementation of any scheme. In order to build up the infrastructure facilities at the District level by way of building quarters for Revenue Officers, construction of Court Rooms, construction of Inspection halls, construction of conference Halls, construction of Nayabat Offices and renovation/upgradation/extension of existing revenue buildings, the proposed outlay under capital component for District Sectors was Rs. 180 lakh for the 9th Five-Year Plan on sharing basis. An amount of Rs. 55.23 lakh was earmarked for the year 1999-2000.

In addition, there were plans to construct Tehsil building at Surankote to strengthen the revenue complex and an amount of Rs.17.86 lakh was earmarked for the same during 1999-2000. Similarly, the Tehsil building at Kulgam which was gutted was

9. 9th Five-Year Plan for Jammu & Kashmir, pp.294-295.

planned to be reconstructed and an amount of Rs.15 lakh was earmarked for 1999-2000.

(f) Pradhan Mantri Gram Sadak Yojana

Under the scheme, Ministry of Rural Development, Govt. of India had approved 12 road projects for Jammu division during 2000-2001. For this purpose an amount of Rs.10 crore has also been released and the works have been taken up by the executive engineers, REW. Against the release of Rs. 100.00 lakh during the year 2001-2002 an expenditure to the tune of Rs. 334.83 lakh were reportedly undertaken up to the end of March 2002. Out of this, Rs. 101.45 lakh were spent on earthwork and Rs. 33.38 lakh utilized on material component.

The foregoing analysis of various development initiatives presents a mixed picture of hope and fear. The hope comes out of the optimism that if these development interventions are allowed to be implemented with sincerity, the days of rural prosperity are not far. The fear comes from the assumption that if the shortcomings, which these schemes have suffered during the process of implementation are not addressed, what will be the condition of our rural areas. In order to substantiate our hopes and fears, it was considered to either conduct some empirical studies or to have a look at the existing ones. Since the time-frame fixed did not allow to undertake some empirical studies, there was no option but to rely on existing ones.

DEVELOPMENT ACTIVITIES IN LADAKH REGION

There is some confusion as to whether two districts of Ladakh region, namely, Leh and Kargil are included in the presentation of data given in the planning document about various rural development programmes and schemes of Jammu and Kashmir regions. On the one hand, the planning document is silent about it and on the other hand it has provided separately a brief discription about development activities being carried out in these two districts. Further, through the establishment of 'Autonomous Hill Development Councils and an Inter-District Advisory Council' in the Ladakh region in June 1995, the formulation of development programmes in respect of District Component Schemes to review their progress and achievements have been vested with these councils. The councils are also expected to lay down guidelines for implementation of development schemes at the grassroots level. It will be useful, therefore, to present a brief account of development activities as provided in the planning document for Leh and Kargil districts.

Leh: The Leh district is situated in the eastern portion of the Ladakh region of Jammu and Kashmir state. The population of the district is 1,17,637 (2001 Census) of which about 85 per cent are Buddhists and 15 per cent Muslims. More than 95 per cent of the population belongs to the Scheduled Tribe category. The population density of 2 persons per sq. km works out to be the lowest in the country. The total geographical area of the district is 44,479 hectare of which the total cropped area is 11,250 hectare and the main crops are grim, wheat and fodder. Apricots and vegetables are also grown in some parts of the district.

The Ladakh Autonomous Hill Development Council was formed in September 1995. It consisted of 26 elected and 4 nominated members and an Executive Council with a Chairman-cum-Chief-Executive Councillor and four Executive Councillors. The Council has been vested with Executive powers in the districts to formulate, implement, review and monitor all development programmes including five-year and annual plans and the annual budget, both Plan and non-Plan. The 9th Five-Year Plan of the district unfolded a broad strategy aiming at both intensive and extensive development of primary sector, development of infrastructure, providing of basic minimum services, combating poverty and creation of employment opportunities. During the 8th Five-Year Plan it was reported that an amount of Rs.9159.66 lakh was spent. As against this the 9th Plan allocated an amount of Rs. 19000 lakh including Rs. 3200 lakh approved for 1996-97. This did not include allocations in the State sector plan schemes, which were substantial in respect of PDD, higher education, etc.

A look at the Table III.119 presents a mixed picture about the progress of implementation of various rural development programmes/schemes. Although the expenditure pattern has remained more or less normal, physical target achievement has been uneven. It also indicates that establishment of Hill Autonomous Councils have not brought about any appreciable change in the process of implementation of development programmes.

Table III.119
Financial and Physical Progress under EAS, JRY, IAY &
MWS during 1997-98

(Leh) Ladakh)

Financial					Physical			
1997-98	Allocation Total Availability		Expenditure	Target	No. of works taken up	No. of works completed	Mandays Target	Mandays Generated
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. EAS	500.00	465.427	437.269	650	585	462	3.320	1.698
2. JRY	48.38	112.708	107.540	182	124	100	0.947	6.723
3. IAY	8.78	79.722	43.45	529	512	503	0.070	0.043
4. MWS	4.05	2.459	2.408	12	12	11	0.102	0.436
FINANCIAL AND PHYSICAL PROGRESS UNDER EAS, JRY, IAY & MWS DURING 1998-99								
1. EAS	300.00	280.161	263.32	525	484	315	3.993	2.22
2. JRY	68.28	106.101	98.709	226	195	143	1.328	1.15
3. IAY	13.96	8.109	7.870	68	66	66	0.105	0.97
4. MWS	4.47	4.552	3.239	10	10	09	0.032	0.031
FINANCIAL AND PHYSICAL PROGRESS UNDER EAS, JGSY, IAY DURING 1999-2000								
1. EAS	152.80	170.52	164.009	555	390	184	4.018	1.315
2. JGSY	57.49	48.408	46.420	213	166	65	0.99	0.410
3. IAY	9.57	14.501	14.330	107	107	107	-	-
2001-2002								
1. EAS	92.27	133.938	126.968	197	197	158	1.463	0.943
2. JGSY	56.45	65.675	58.09	121	121	101	0.65	0.517
3.IAY Normal	10.26	10.617	10.32	75	75	71	-	-
4. IAY Add.	27.50	13.75	13.75	100	100	85	-	-

Source: Office of the Assistant Commissioner, Development, Leh.

Kargil: Kargil district was carved out of erstwhile District Ladakh in 1979. It lies in the north-east of Kashmir Valley and has an area of 14,036 sq. km. The whole area is composed of rocky mountains at high altitude (ranging from 800 feet to 18,000 feet above sea level), almost totally devoid of natural vegetation. The population of the district was 1,15,227 as per 2001 Census. The density of population is only 5 per sq. km. The District has 129 villages consisting of 461 habitations. The habitations comprise a number of households settled near available irrigation facilities and thinly spread over a large distance.

In Kargil District the scheduled tribes of Ladakh origin constitute about 99 per cent of the total population of the district. Thus the benefits of the plans in the district squarely flow to the scheduled tribes.

During the 8th Five-Year Plan, an amount of Rs. 8994.93 lakh was spent under

district plan in Kargil District. For the 9th Five-Year Plan, an amount of Rs. 19,000 lakh (with Rs. 13024.87 lakh as capital component) was to be spent, including Rs. 3200 lakh as revised approved outlay for annual plan 1997-98. Some of the important rural development schemes in operation during the 9th plan period were as under:

(a) *J.R.Y*

Under JRY an amount of Rs. 100 lakh was proposed as State share for achievement of targets for construction of 50 khuls, 70 foot bridges, 40 tanks, housing subsidy for 165 houseless persons and construction of 5500 poly greenhouses during the 9th Five-Year Plan period.

(b) *I.R.D.P*

An amount of Rs. 160 lakh was proposed under IRDP during the 9th Five-Year Plan period. About 1,000 youth were provided training under TRYSEM programme and 200 groups formed under the DWCRA scheme during 1997-2002.

(c) *E.A.S.*

An amount of Rs. 700 lakh was proposed as the State share for implementation of EAS. The scheme envisaged a physical target of 100 motorable roads, 450 foot tracks, 30 bridges, 96 primary school buildings, 100 latrines, 100 khuls, 90 water storage tanks 400 community beats and 400 protection bunds during the 9th Five-Year Plan period.

EVALUATION STUDIES

No comprehensive evaluation studies have been taken up to determine the drawbacks and impact of various development interventions made in the State. However, a couple of studies, although limited in scope, have been undertaken from time to time by various agencies to study one or other aspect of various development schemes implemented in Jammu & Kashmir State for the past few decades.¹⁰ The findings of these studies have been summarized in the 'Report of the Committee on Economic Reforms for Jammu & Kashmir' August, 1999.'The following are the main highlights based on the findings of these studies:

10 These studies include: Evaluation of IRDP in two districts of Udhampur & Anantnag, NIRD-1986; Evaluation Study of IRDP by the Directorate of Economics & Statistics of J&K Govt; Bhat, Bakshi-Evaluation of IRDP in Ganderbal Block of Srinagar district, 1988-89; Post-evaluation report of TRYSEM scheme, and Evaluation study of EAS in Udhampur district-1994-95.

- One of the factors responsible for the ineffectiveness of various development programmes/schemes as highlighted by more than one study relates to identification and selection of beneficiaries. The analysis of the findings reveals that identification/selection of beneficiaries for various rural development schemes was not carried out in strict accordance with guidelines. A number of families identified/selected did not belong to below poverty line segment of population. In some cases, it was also found that the poorest of poor, who should have received priority among BPL families, were left out. It seems that this trend continues even now. One of the reasons is that in some cases, VLW was found to be main source for identification of beneficiaries rather than BPL survey/register. This is a very unhealthy trend and needs to be checked.

- The aforementioned findings are substantiated by the fact that in a number of cases, no baseline survey was undertaken for identification/selection of beneficiaries. In some cases where these surveys were taken up, the results contradict both national as well as planning department estimates. Some studies have attributed it to the indifferent attitude of top-level executives at State level towards such surveys.

- The State of Jammu & Kashmir, because of its geo-physical features, has many remote and far-flung areas, which deserve special attention in terms of development interventions. The studies show that these areas of the State did not receive adequate attention in the coverage of various development schemes as was originally envisaged.

- The implementation of development schemes/programmes in the State has been sluggish and falling short of the targets. The studies reveal that in a number of cases, the actual achievement has been only to the extent of one-third of the target set in the beginning.

- A major lacuna which rural development organizations suffer from relates to inadequate database. The database/information available about various development schemes/programmes, their coverage and achievements, suffer from serious gaps and inconsistencies. Even in the preparation of the State Development Report, such gaps and inconsistencies were encountered which at times made it difficult to draw any inferences.

- The schemes/programmes perform well and have high chances of sustainability if proper backward and forward linkages are established. The studies have found that development schemes/programmes in the state have not been able to establish such linkages, which has adversely affected their performance and sustainability.
- Training is not a short exercise. Further, it gains value if knowledge and skills acquired through it are properly utilized. This is particularly true of schemes/programmes with a heavy training component, e.g., TRYSEM. The findings of the studies reveal that not more than 10 per cent of the trained youth under TRYSEM have utilized their training.
- Monitoring plays an important role in the effective implementation of various development schemes/programmes. It is therefore, necessary that adequate monitoring mechanisms are kept in place. The studies have shown lack of adequate monitoring mechanism in the implementation of development schemes in the State.
- A number of rural development schemes have creation of durable assets as one of their objectives. The success of the programme/scheme depends upon how well these assets are maintained. The studies reveal that the maintenance of assets created through various development schemes was very poor.
- The durability of assets created depends, to a large extent, on the quality of material used. As per some of the studies, the quality of material used and quality of work done leaves a lot to be desired.
- Some studies have pointed out very interesting and significant aspects of the process of implementation of various schemes. In number of projects/works, the physical targets were not achieved, though the earmarked expenditure was shown to have been incurred. These are significant aspects having long-term implications, if not addressed immediately.
- The beneficiaries are at the receiving end of the development process. They face their own problems during their encounter with development interventions.

The studies show that the main difficulties faced by the beneficiaries include lack of knowledge about management of assets, lack of marketing facilities, official delays particularly in processing of applications and, in some cases, lack of veterinary facilities, etc.

CHALLENGES AND OPPORTUNITIES

Poverty and rural development in the state of Jammu & Kashmir is full of challenges and opportunities. Rural development is one of the most significant sectors having a bearing on all other development sectors. In a state like Jammu & Kashmir, which is predominantly rural in character, any rural development intervention has to be carefully planned and implemented. All available evidences-whether in the form of evaluation studies, physical targets and achievements or outlays and expenditure, reveal that rural development interventions made in the state were not well implemented. An overview of such interventions indicate that they contributed only to some extent in improving the conditions of the rural poor in the State. There are a number of factors which seem to have contributed to such a state of affairs, which will be discussed later.

LACK OF ADEQUATE AND RELIABLE DATABASE

One of the basic and crucial problems, which one encounters while taking stock of various development activities initiated in the state is lack of adequate and reliable data base. The information and data collected from various sources vary considerably even on similar parameters, making it difficult to draw any inferences. These gaps and inconsistencies in data, even within various government sources, were found to be so wide it becomes difficult to justify them. It is hard to believe that even the planning documents have inbuilt gaps and variations which hinder knowledge about the actual magnitude of the problem. It is, therefore, necessary that an adequate and reliable data base is built on an urgent basis as a first step to know the magnitude of problems on one hand, and development assistance needed on the other.

ESTIMATION OF BELOW POVERTY LINE (BPL) POPULATION

There cannot be a better example of inadequate data base than estimation of population living below poverty line in J&K State. The Planning Department document has provided a figure of 57 per cent based on results of the survey conducted with 1991-92 as the reference year. They claimed in their 9th Plan document that 7.86 lakh families (including Ladakh region) fall in the category of "below poverty line" as per the normative basis of income level of Rs. 11,000 per annum (or 57 per cent of total households). They also admit in the same document

that these figures are higher than the Planning Commission figure of 25 per cent, which, according to them, has been worked out by the expert group of the Planning Commission on the basis of studies. Then there is poverty line data given by State Governments Information Department which puts the figures at 3.98 per cent. These are also figures which are very close to a recent estimation of Planning Commission, (Saxena, N.C Poverty estimation for 1999-2000) which puts it at 3.48 per cent with a 30-day recall period. How can one reconcile 57 per cent on the one hand and 3.98 per cent on the other? It seems that none of them is correct, if one looks at the data and information provided by the Directorates of Rural Development in Jammu & Srinagar who are responsible for implementing poverty alleviation programmes in the state. According to their estimates in the Kashmir Division, it ranges from 49 per cent in Pulwama district to 73 per cent in Srinagar district. With all these estimations the picture which emerges is quite confusing.

It is therefore, essential that all necessary steps are taken for realistic estimation of people and families living below the poverty line in the state. It will be futile to continue pumping money into the state for poverty alleviation programmes without having a realistic estimation of poverty in the State.

INTEGRATION AND CONVERGENCE OF POVERTY ALLEVIATION PROGRAMMES

Poverty alleviation programmes are being implemented without exploring possibilities of integration or convergence at the grassroots level. It seems that the implementation machinery remains more pre-occupied with achievement of individual targets rather than working towards the cumulative impact of these programmes. There is great scope for high degree of convergence which can be attempted at district level by integrating various developmental interventions having more or less similar objectives. For example, in the state of Jammu & Kashmir, the Govt. of India through the Ministry of Human Resources Development has recently introduced a scheme called 'Sawadhar'. This is meant for socio-economic and psychological rehabilitation of militancy-hit, traumatized and other women in distress. The basic idea is to provide shelter, food, clothing and care to the marginalized women and girls, ensuring their socio-economic rehabilitation through education and vocational training for skill upgradation. There is great scope for integration and convergence of this scheme with rural development schemes being focused on women. In the state of Jammu & Kashmir, the concept of 'District Development Board' still exists, which can make such convergence possible. There are a number of other schemes providing similar scope for integration which need to be identified. The convergence needs to be attempted.

ACCOUNTABILITY AND FUND UTILIZATION

A modest attempt at analyzing the implementation of various rural development programmes provides a very sad picture in terms of accountability and fund utilization. A number of poverty alleviation programmes with a large volume of resources have been implemented in the state from time to time. It seemed that these programmes have suffered from numerous defects including poor identification and selection of beneficiaries, absence of linkages between various centrally sponsored development interventions and state specific/funded programmes, inadequate data base, lack of effective monitoring mechanism and large leakages of funds. All these can be attributed to lack of accountability. The Report of the committee on Economic Reforms for J&K in its concluding remarks on analysis of various evaluation studies on poverty and rural development states, "These illustrative cases bring out the severity of the problem. It can be seen that in spite of large government expenditure the impact on the ground has been minimal. The weaknesses are in policy formulation and its execution. The design of schemes and programmes leaves a great deal to be desired. There are severe weaknesses and gaps in the implementation programmes. The supervision over field organizations has deteriorated. There are large leakages of funds."

A disturbing feature of the rural development interventions in the state is the implementation mechanism adopted for the major poverty alleviation programmes/schemes and their fund utilization. It seems that instead of helping rural poor to come out of the poverty trap, these interventions have further drifted them into it. These programmes seem to have failed to generate adequate levels of income to bring the rural poor above poverty line on a sustainable basis. In a state where majority of rural poor are at the poverty line rather than far below it, the amount of money pumped in through various development programmes should have resulted in complete rural prosperity. Instead, it seems that the number of people below poverty line is on the increase. There is thus a strong need to have a serious look at the entire implementation mechanism and fund utilization before more money is pumped in.

3. IMPROVEMENT IN GOVERNANCE OF DEVELOPMENT

The term 'governance' is widely used by various agencies in a broad perspective. The dictionary meaning of the term, is, 'the act or manner of governing' (Oxford English Dictionary), but now its definition has been widened to cover much more. A UNDP policy document states that "governance includes the state, but transcends it by taking in the private sector and civil society. All three are critical for sustaining human development. The state creates a conducive political and legal environment. The private sector generates jobs and income. And civil society facilitates political and social interaction-mobilizing groups to participate in economic, social and political activities."

The World Bank defines governance as the "manner in which power is exercised in the management of a country's economic and social resources for development." It covers three distinct aspects of governance:

- (i) the form of political regime,
- (ii) the process by which authority is exercised in the management of the country's economic and social resources; and
- (iii) the capacity of the government to design, formulate and implement policies and programmes and discharge its functions.

In fact, some of the definitions even talk in terms of good governance and bad governance. The World Bank defines good governance and bad governance thus:

'Predictable, open and enlightened policy making, a bureaucracy imbued with professional ethos acting in furtherance of public good, the rule of law, transparent processes, and a strong civil society participation in public affairs. Poor governance, on the other hand, is characterised by arbitrary policy making, unaccountable bureaucracies, un-enforced or unjust legal systems, the abuse of executive power, a civil society unengaged in public life, and widespread corruption. Good governance fosters strong state capable of sustained economic and social development and institutional growth. Poor governance undermines all efforts to improve policymaking and to create durable institutions. (World Bank, 1997)

Going by these definitions, one can clearly analyze that governance is related to all aspects, be they social, economic and/or political. The question is, how can this

system of governance be improved to get the maximum benefit. Many thinkers have given various indicators from time to time to define the way things are governed, and can be improved. Some of the most important indicators are accountability, transparency, participation of all concerned etc. When we say improvement in governance of development, the basic idea is to spell out the indicators for good governance. Some points which can be kept in mind are:

- Effective implementation of policies/schemes
- People's participation
- Friendly/approachable bureaucracy
- Simple procedures to access schemes/other benefits
- Area (where these programmes will be implemented)
- Feasible schemes (should be according to needs of the area)
- Involvement of the local governing bodies
- Check and balance system (through Committees).

One of the most important aspects is that these schemes should be according to the local conditions of the area. At times the schemes are such that their implementation becomes a big burden on the locals, as they are not suitable for the area. As the plans are prepared at the national/state levels, it is not only difficult to keep local conditions in mind but also impractical. That is why, these days the emphasis is on local governance.

People's participation is also important because without it, the implementation becomes ineffective. The procedures of availing the benefits of schemes need to be simple and less time-consuming, otherwise the meaning of such programmes is lost altogether. Plans should be prepared at the village/district level so that they are more suited to local conditions. In other words, they should be more local than universal in nature.

Involvement of local bodies is a must. Implementation of schemes becomes easier if local bodies like PRIs, etc., are involved in implementation of these schemes. However, to minimise the monopoly of a single body in implementing the schemes/plans, a committee can be constituted at a higher level so that monitoring and evaluation become easier.

Good governance requires accountability by public officials: both elected political leaders and civil servants whose public function is to serve the community at large.

Second, good governance requires transparency in public procedures, processes, investment decisions, contracts and appointments. It is not sufficient that information simply be available, it must also be reliable and presented in useful and understandable ways to facilitate accountability.¹

As mentioned earlier, the emphasis nowadays is on local governance. Programmes are now being implemented through local bodies only and people have high expectations from the representatives who have been elected to these local levels. Thus accountability, transparency and participation are the main factors approved of by people as comprising good governance.

Accountability: All elected members should be accountable to the people. In other words, there should be a mechanism by which these representatives can be removed and or penalised in case they fail to perform. They should not misuse their office to acquire special favours or benefits.

Transparency: Information about decisions and actions taken by various authorities concerned should be made public. The right to information is essential for people to judge whether their representatives have done justice to the work assigned to them. This information has to be complete and unbiased.

Participation: This implies the inputs given by authority and includes people's participation. Participation of all is necessary, whether directly or indirectly (through representatives), to make the system more accountable and transparent.²

THE EXISTING PATTERN OF GOVERNANCE IN J&K

The state machinery functions on the pattern which is being followed everywhere in the country. However, one unique aspect here is that it follows the system of Single-line Administration. In this system, planning is done at the district level by the district officials concerned. The MLAs and MPs of that particular area are part of this planning. Funds are earmarked for various development projects and at the end of the year an assessment is done to take an account of the works accomplished. If it is felt that funds need to be diverted or redirected towards some other activities, then those decisions are taken on the spot. The Chief Minister also takes stock of planning done at district level.

1 Source: "Governance: South Asian Perspective" (Ed.), Hasnat Abdul Hye, New Delhi, 2000.

2 Decentralization and Good Governance: A Framework of Decentralization for Sustainable Community Development, Norman Uphoff.

However, everything is not always very smooth. During our visit to the state we interacted with many officials who opined that government machinery has been affected by the militancy in the state. Two-third of the state had been severely hit by militants due to which the outreach of government officials also got affected. As the free movement of government officials has been hampered, they are not as easily accessible to one and all as they should be. This is partly due to security being beefed up after threats by militants. Some of the proactive and development-oriented officials have suffered the most because they have become the direct targets of militants.

The concept of governance in the context of Jammu & Kashmir needs to be elaborated and detailed. Long spells of Governor's rule, suspension of municipalities and other local bodies and non-existence of panchayats have had a bearing on the governance of the state. Above all, prolonged militancy has had an adverse affect on governance. While quite a few states of the Indian Union inherited the system of administration evolved during the British rule, the state of J&K had no such system. As a result, even during normal times, the governance in the state was marked by arbitrariness and lack of systems and precedents. The level of corruption, both at the political and bureaucratic levels, was fairly high. consequently, the benefits of various economic development plans initiated by the state government did not percolate to the poorer sections of the society.

It was brought to our notice that at times militants forcibly siphoned off with the development funds, especially in the border areas. For example, wherever militants dominate, they also availed the benefits of various schemes by registering themselves as beneficiaries and sidelining the real needy by threatening them.

There have also been frequent complaints about regional imbalance in economic development. While the geographical situation, topography and lack of infrastructure have largely been responsible for this imbalance, there has been a widely held belief or perception that there is an urgent need to evolve the political and administrative will to bring about balanced development.

The supervising officers who are supposed to monitor implementation of development schemes fight shy of stepping into the interiors. This is particularly applicable in respect of health schemes, education sector, and road and irrigation schemes. Even in normal times, the dropout rate at schools was comparatively high, as was the number of unfilled posts at primary health centres and other rural-based dispensaries. Militancy has further compounded the situation and reduced the efficacy of administration.

There is need to revive and activate the panchayats and revitalise the administration

at grassroots level. The Secretaries and Head of Departments (HoDs) also need to tour more frequently and intensely than has been the case so far. It would be appropriate to have periodic district-level meetings attended by officers of various departments at district level as well as Secretariat officers and HoDs so that the local problems can be ascertained and their redressal effected within a time-bound period.

In the absence of railways and air service, the only effective and prevalent mode of transport in the state is the road transport. The poor maintenance of roads and bridges and destruction of roads, bridges and other links in the wake of militancy, have rendered the job of administration quite difficult.

To overcome these problems, it becomes imperative to take a few measures that will prove beneficial in the long run. At present, single-line administration is not very successful, there is a need to maintain a balance between the security of officials and attending to people's needs. The security of officials should never become a hindrance in approaching these very officials when people want their grievances to be redressed. Proper follow-up of these complaints/grievances should be done.

The growing distrust between various communities, the increasing disparities in regional development and perceptible alienation and cynicism of the general public are the issues that need to be addressed urgently and imaginatively.

CHAPTER IV

Potential Sectors of State Economy

AN OVERVIEW

The state of Jammu and Kashmir in many respects has problems of isolation, backward and inaccessible areas, and lack of an industrial base and employment opportunities. However, the state is vested with a substantial water resource, mineral base, and is famous the world over for its exquisite handicrafts, handloom products, tourism, horticulture produce and cottage industry. While the state has enormous potential for the flourishing of various industries, it has lagged behind in the field of industrialization. The public sector units have generally failed to perform and the private sector has not flourished. Although the state has made sustained efforts, based on its industrial potential, to develop industry and elevate its economic standard, it has still to go a long way to find a place in the industrial map of the country. Therefore, it is imperative to identify and exploit the productive capabilities of the different regions of the state to trigger off the growth impulses, thereby facilitating the process of economic take-off. For promoting prosperity and ensuring equitable economic development throughout the state, the state government has been encouraging the flow of investments in areas with high employment potential and helping in utilizing local skills and raw materials to advantage.

The state government has identified certain thrust areas in the matter of industrial growth. The projects in these areas shall receive priority in respect of allotment of land, sanction of power and other clearance from high-level empowered committee as also in the matter of grant of incentives. These thrust areas are: electronics (including computronics and software), food processing including agro-based industries, floriculture, handicrafts, leather processing and leather goods, sports goods, forest-based industry, processing of aromatic plants and herbs, pharmaceuticals based on herbs, bulk drugs, processing, printing hosiery and made-ups, cutting and polishing of stones, gems and jewellery, precision engineering and others. A brief introduction to some of the important traditional and thrust areas is given in this chapter.

HORTICULTURE-BASED INDUSTRIES

The state produces 10 lakh tonne of apple per annum besides other fruits like pears, cherry, plums, apricots, etc. There is ample scope for setting up of industrial units

for juice concentrate, jams, jellies and marmalades. However, it is pertinent to note that Kashmiri horticulturists have preferred to remain the suppliers of primary products rather than diversify into value-added finished products. The valley is also famous for production of saffron and dry fruits like almonds and walnuts. There is ample scope for setting up of processing units based on these fruits. Presently about 5 lakh families derive their livelihood from this sector of agriculture economy. Each hectare added to it, generates 500 mandays job annually and augments the family's income for 30 to 70 years. With an annual turnover of over Rs. 300 crore excluding the foreign exchange of over Rs. 80 crore, horticulture plays a vital role in the economic development of the state. This sector is the biggest source of income in the state's economy, next only to the agricultural sector. The salubrious climatic conditions of the valley are most suitable for the growth and development of not only the various types of quality apples but also a variety of other fruits including pears, plums, apricots, cherry, strawberry, grapes and various varieties of wild herbs. While enterprising entrepreneurs are successfully developing the straw farms in the neighbouring Punjab, not much has been done in this area in Kashmir even though the climatic conditions here are more conducive for growing strawberries than in any other state of India.

The state offers tremendous potential for export of various processed fruits and walnuts, honey, etc. With the extensive use of appropriate fertilizers, not only can the quality of the fruits be maintained and improved, but also protection from scab and various other diseases can be assured. With the use of modern technically improved packing, development of cold storages at various vantage points in and outside the state, better and faster transportation facilities, trucks with air cooled containers etc., there is no doubt that the fruit industry in Kashmir can get a great fillip.

HANDICRAFT AND HANDLOOMS

The handicrafts industry occupies an important place in the economy of J & K. It is basically a cottage industry and provides direct and gainful employment to more than 3 lakh people and has the potential to generate more employment in future. The handicraft products have won worldwide acclaim for their exquisite designs, craftsmanship and functional utility. The woollen and silken carpets of the state remain unparalleled on the national scene for quality and design. The crewel embroidered pashmina, and embroidered raffal shawls, pattern of Kani shawls, intricate wood carving, production of flora design in paper mache goods, etc., are some of the world famous traditional crafts of the state. In fact, the Kashmiri craftsman possessing a unique talent for intricate workmanship is one of our most

important resources. This industry has a tremendous potential and has to be perceived with concern and with a precise understanding of its values. As an export-oriented industry, it has contributed considerably towards foreign exchange earnings worth crores of rupees annually. It is a cottage-based industry, which does not require heavy capital investment and heavy infrastructure such as machinery, buildings and power.

TOURISM INDUSTRY

Tourism plays an important role in the state and is indeed one of the major contributors to the state economy. There are several tourist spots with breathtaking scenic beauty located throughout the length and breadth of the state that attracts thousands of domestic and foreign tourists. The picturesque beauty, large natural lakes, the snow clad mountains surrounded by thickly populated pine forests with rivers flowing through have made J & K as a prime tourist attraction. There are a large number of hotels, guest houses, lodges and houseboats providing lodging and boarding facilities to both domestic and foreign tourists. The tourist influx has, however, decreased considerably in the past one decade because of difficult circumstances prevailing in the state. Notwithstanding these problems, the state does possess a tremendous potential for the growth and development of tourism. However, much more remains to be done to exploit the tourism potential to the maximum extent. Keeping this in view, the government of J & K has declared tourism as an industry and a number of concessions and incentives have been extended. It has also been declared as one of the priority sectors by the state government and numerous developmental measures have been initiated to augment tourist flow into the state. In fact, as far as development of tourism in the valley is concerned, some effective strategies that will include proper marketing of tourism must be adopted. These strategies may include development of high altitude golf courses, canoeing, skiing, trekking, fishing and pilgrimages to places of religious importance. The state possesses tremendous potential in all these areas and it is high time that the same be explored as soon as possible so that more and more tourists attracted to the state.

INFORMATION TECHNOLOGY

There is good scope for electronics, precision engineering industries and software development as these industries are less power intensive, low weight, low volume and high value items. Considering the expected growth of computer hardware and software industry, it has the potential to emerge as one of the major industries of the state. It can be said that the highly conducive climate, existing electronic complexes, etc., would provide a base to start new ventures. The state government

has established an electronics Industrial Estate Complex at Rajbagh, Srinagar and is in the process of setting up a Software Technology Park at Rangreth where necessary facilities for connectivity and fast transmission of data will be created to link Kashmir valley with global information highway. The up-linking facility available in this park is expected to meet the international standards for transmitting and receiving data. The park is also likely to have incubator facility for new entrepreneurs. As such, many electronics and computer-based industries can economically be established and it would provide the support of requisite infrastructure to attract leading national and international software concerns to establish their respective software development centers for global distribution of software under one umbrella.

1. HORTICULTURE

INTRODUCTION

The peculiar geographical situation and inadequacy of infrastructure in Jammu and Kashmir has restricted the development of agriculture and the possibility of land productivity. The outputs of agricultural products are not increasing in proportion to the cost involved in the farming. The agricultural activity is, therefore, considered to be an uneconomic occupation. In the absence of non-availability of employment opportunities in other sectors, the workforce is forced to depend mainly on agricultural activities. In the context of stagnation in agricultural production, which is not helpful in creating an increasing level of employment opportunities in the region, horticulture is a viable option for exploration.

It occupies an important position in the farming system of the state. Besides, the state has suitable climatic zones for growing temperate, sub-tropical and tropical fruits throughout the year. Temperate fruits like apple, pear, peach, plum, apricot, cheery, walnut, etc., grown at elevation of 1000 to 3000 metres above sea level are important cash-fetching fruits of the state. These fruits not only supplement the diet of the local people, but also form an important item of export to other parts of India.

The Post-Independence era witnessed substantial progress in respect of production and area coverage under horticulture but still needs special attention. Fruit production in the state has increased to 11.05 lakh metric tons during 1999-2000 from mere 16,000 metric tons in 1953-54. Out of this, fresh fruit production accounts for 10.22 lakh metric tons. The area under cultivation crops has increased by 17 times. It has increased up to 2.19 lakh hectare in 2000-01 from a mere 12,400 hectare in 1953-54. The per hectare yield too has gone up to 5.08 metric tons from 1.29 metric tones during the period. Under the area expansion programme, over 44 lakh plants produced in government and private nurseries have been distributed among the prospective beneficiaries during 1999-2000. About 4.85 lakh estimated families are involved directly in fruit cultivation. According to the estimate of State Horticulture Department, around 20 lakh persons are, in one way or the other, being benefited by the fruit industry of the state. Apart from these achievements, this sector also faces certain challenges like the average land holding size (0.76 hectare) being small for the commercialization of the horticulture activity. Due to unavailability of packaging and processing facilities, 30 per cent of the total fruit produced get

wasted. Inadequate marketing facility is also one of the reasons for low productivity. Through certain changes in the development perspective of the department of horticulture, this sector could become one of the important sectors in the state economy. The returns from the growth in the apple production should be one of the motivational factors for the growth of horticulture in the region.

AREA UNDER HORTICULTURE

The growth and expansion of area under horticulture in the state has been high during the past three decades. Out of the total area under orchards in the state, approximately 90 per cent is concentrated in the valley, for the obvious reason of climate, and soils being conducive to the cultivation of a wide variety of fruits.

Table IV.1
Area under different land use type

Land use types	Area in 1000ha (1984-85)	Percentage of area (1984-85)	Area in 1000ha (1998-99)	Percentage of area (1998-99)
Forest	658	27.19	658	27.23
Net area sown	722	29.53	734	30.38
Land put to non-agriculture uses	339	14.00	291	12.04
Barren land	227	9.37	291	12.04
Permanent pastures and other grazing Grounds	125	5.16	126	5.21
Land under miscellaneous trees and other groves	109	4.50	73	3.02
Cultivable Waste	143	5.90	139	5.75
Fallow other than current fallow	8	0.33	8	0.33
Current fallow	91	3.75	96	3.97

Source: Digest of Statistics, Jammu and Kashmir, 1999-2000.

The area under orchards is far less in comparison to the area under agriculture. During 1998-99, total area under agriculture was 30.38 per cent, however, total land under the orchards was only 3.02 per cent (Table IV.1). The data (Table IV.2) shows that still there is a huge area to be explored for horticulture. The agricultural land can be utilized for the purpose of horticulture, because the gestation period in the case of the major varieties of fruit trees is minimum 4-5 years. Moreover, the plantation of fruits trees along with crops like maize, vegetables, fodder, wheat and pulses does not affect crops during the gestation period. Even after the gestation period, some of these crops can be cultivated along with the fruits. Thus it is quite possible that even if the area under these crops does not increase or even remain stable, the area under fruits could increase.

Table IV.2
District-Wise Distribution of Area under Orchards and Vegetables

(Area in 1000 ha)

District	Orchards & Vegetables 1983-84	Orchards & Vegetables 1998-99
Anantnag	7.03	10.28
Pulwama	11.91	13.87
Srinagar	5.8	5.47
Badgam	5.34	7.86
Baramulla	14.58	20.27
Kupwara	4.76	5.22
Leh	0.31	0.29
Kargil	0.12	0.34
Jammu	2.16	1.37
Udhampur	0.28	0.48
Doda	0.73	0.51
Kathua	0.33	0.22
Rajouri	0.02	0.06
Poonch	0.07	0.06

Source: Digest of Statistics, Jammu and Kashmir, 1999-2000.

Most of the land available for horticulture is in Anantnag, Pulwama, Srinagar, Badgam, Baramulla and Kupwara (Table IV.2). In the case of Baramulla, Anantnag and Pulwama the area under orchards shows an increasing trend. According to the Godbole report, the area under orchards in the state was 31,000 acre in 1949-50. It had quadrupled to 1.40 lakh acre by 1970-71. These figures were, however, contradicted by the record of revenue department, which put the area under orchards at 34,000 acre in 1972-73. The discrepancy arose as large areas converted into orchards were still shown as fallow in the agriculture revenue records. However, Table IV.2 shows that from 1983-84 to 1998-99, there was a minimal increase in the total area. The estimates of agricultural census (1985-86) reveal that the total area under orchards has gone up to 1.48 lakh hectare; 0.64 lakh under apple, 0.33 lakh under walnuts, 0.17 lakh under almonds, 0.30 lakh under crops like cherry, peach, plum, apricot, etc., and 0.04 lakh under mangoes.

PRODUCTION

The state has the largest potential for production of quality temperate horticultural crops. It has created a niche in production of apple, pears, and dry fruits i.e. almond and walnut. Among temperate fruits, apple, walnut and almond rank first, second and third respectively in area and production, covering 64.05 per cent, 27.31 per cent and 8.65 per cent of area and 909583, 86263 and 9879 metric tonne of production respectively (Tables IV.2, IV.3 and IV.4). Earlier, apples contributed a major share of total fruit production in the state. But recently a perceptible

diversification of fruit has been seen in the walnut cultivation, which has a very high export potential. The potential for foreign exchange earnings on account of walnut export is estimated at Rs.500 crore annually if production technology is further refined and updated according to international standards.

Table IV.3
District-Wise Production of Fruits for the Year 2001-2002

(Production in M.tonne)

Districts	Apple	Pear	Citrus	Mango	Other Fruits
Anantnag	161182	7138	0	0	660
Pulwama	121900	3999	0	0	0
Srinagar	36100	2798	0	0	598
Budgam	45537	4079	0	0	12
Baramulla	469300	2079	0	0	1780
Kupwara	60000	1134	0	0	329
Leh	3350	7	0	0	0
Kargil	350	5	0	0	0
Jammu	0	0	1892	2623	3071
Udhampur	2150	1370	2705	300	2211
Doda	6193	1864	55	0	377
Kathua	1180	2853	6041	3309	1111
Rajouri	125	125	727	825	784
Poonch	2216	7499	177	0	403

Source: Department of Horticulture, Srinagar, 2002.

Table IV.4
District-Wise Production of Dry Fruits for the year 2001-2002

(Production in M.Tonnes)

Districts	Walnut	Almond	Other Dry
Anantnag	32215	1444	0
Pulwama	13098	5780	0
Srinagar	3404	163	154
Budgam	6782	2458	0
Baramulla	7859	19	0
Kupwara	5710	0	0
Leh	105	1	0
Kargil	11	1	0
Jammu	0	0	0
Udhampur	2650	0	0
Doda	3729	8	0
Kathua	4000	3	0
Rajouri	798	1	22
Poonch	5902	1	3

Source: Department of Horticulture, Srinagar, 2002.

Tables IV.3 and IV.4 show that the districts Baramulla, Anantnag and Pulwama ranked first, second and third respectively in apple production, whereas the districts

of Anantnag, Kupwara and Pulwama ranked first, second and third respectively in walnut production. Production of almonds is concentrated in the districts of Pulwama and Budgam. Cherry production is concentrated mainly in district Srinagar for reasons of close proximity to main market, airport and processing units. Pear, plum and peach are concentrated in the districts of Budgam and Srinagar.

EMPLOYMENT OPPORTUNITIES IN THE HORTICULTURE SECTOR

The cultivation of fruits is labour intensive and requires a significantly higher labour force starting from the stage of planting the trees to the point of its marketing. The manpower requirement in the cultivation and marketing of apples as well as field crops is met by employing paid workers and even the support of family members. This sector not only provides direct employment but it also establishes linkages of various kinds. Apart from labour and capital inputs, the sector generates demand for a wide variety of ancillary activities such as servicing of inputs, packing material, pruning and cutting of branches and transportation of fruit from orchard sites to the fruits centres in the towns and cities of the valley. These ancillaries, have in turn, generated wage employment particularly in horticulture belts. However, according to the estimates of the Horticulture department, around 20 lakh people are employed in this sector. In a study conducted by the Giri Institute of Development Studies, Lucknow, it is mentioned that the cultivation of apples is providing 77 per cent higher mandays of employment (95 per cent higher in case of paid workers and 71 per cent in case of family workers) as compared to the cultivation of agricultural crops. The proportion of paid workers in the cultivation of apple increases with the increase in the size of orchards. So there is a need to allocate substantial resources from rural development to the programmes of horticulture so that total area could expand area expansion, as rural development programmes are mostly oriented towards creating job opportunities. Horticulture development would prove to be the best investment in this direction as a one-time investment made in plantation programmes would continue to provide job opportunities for years to come.

POTENTIAL FOR HORTICULTURE DEVELOPMENT

The demand of fruits both within and outside the state show the potential of the horticulture sector in the state.

Table IV.5
Year-wise purchase of Fruits

(1000 tonnes)

Year	Goods Purchased from other states		Goods purchased from state by other states		
	Fruits	Vegetable	Fruits	Dry fruits	Vegetables
1973-74	136.90	206.20	1598.60	90.80	13.00
1977-78	257.00	313.60	2515.10	81.80	3.50
1980-81	323.44	468.39	3821.70	94.95	0.41
1985-86	274.35	589.35	5424.75	92.22	-
1990-91	539.89	1013.47	3742.53	213.30	1.20
1992-93	681.99	1217.96	6196.86	282.64	5.05
1993-94	802.74	1284.38	7385.90	247.24	2.45
1994-95	971.22	1426.90	5649.50	332.20	1.21
1995-96	1001.16	1387.07	6870.00	280.00	1.27
1996-97	1001.81	1746.18	6853.97	207.26	2.10
1997-98	1182.38	1540.20	7143.46	105.28	1.54
1998-99	607.71	605.84	5769.34	69.85	0.5
1999-00	1415.41	973.47	7717.48	129.85	3.58

Source: Digest of Statistics, Jammu and Kashmir, 1999-2000.

The data on the imports and export of fruits shows that there is a huge demand of Kashmiri fruit. Table IV.5 also shows that demand is not only increasing out side the state but within the state also. The data shows few positive aspect of the demand and supply of the fruits. First, the consistent increases in the demand and supply of the fruits show that this region is completely suitable for horticulture. Second, despite the internal disturbance during the 1990s there is hardly any impact on the demand and supply of fruits. This shows that with very little initiative a lot can be achieved in this sector. Last, an important factor, which attracts the cultivator, is the highly favourable cost benefit ratio. The net returns per acre (in Rs) from the principal crops of the valley, worked out by various scholars/government agencies show that apple cultivation gives the highest returns as compared to paddy, i.e., Rs 7,515.38 for apple as against Rs.1,390 in the case of paddy. The net returns vary across the size categories of orchard holdings. The large apple orchards of the size of 7.50 acre and above yield higher returns in comparison to the marginal and small size orchards.

STATE INITIATIVE

The state government encourages the diversification of agriculture and development of the horticulture activity. Provision of incentives $\frac{3}{4}$ credit at differential rates of interest; technical guidance; fertilizer; subsidies and marketing facilities $\frac{3}{4}$ have been the main government inputs in the sector. The state government has taken

certain initiatives in the area of diversification of horticulture by introducing high-density apples and soft fruits like strawberry and currants around cities and towns. Recently, grapes have been introduced but the initial heavy investment does not tempt farmers to undertake its commercial production. However, better varieties suited to the Jammu climate need to be tried. Low chilling varieties of peach and pear also have potential in the area like Udhampur and Rajouri districts. The state government has distributed 1.30 lakh fruit plants to the small and marginal farmers free of cost under Nutritional Garden Scheme with the assistance from National Horticulture Board. The grower and local dealer-friendly Agriculture Produce Marketing (Regulation) Act, 1997 came into force from 16 March 2001. The Act helps the “mandis” in securing infrastructural development support from various central government agencies, besides improving gradation and remunerative returns to growers through domestic sales and export in consideration of free trade policy under WTO tie-ups. The state government has taken up initiative with NABARD to develop 19 markets; 17 satellite/rural markets, one terminal market and one-grain market. Of these, 11 markets are in Kashmir division and 8 in Jammu division. The state government has taken certain initiatives but a lot of initiative is still required in this area.

PRIVATE INITIATIVE

One of the important private initiatives taken in the horticulture sector is the marketing of fruit. Earlier the whole marketing of the fruits was done either by the state government or the middlemen. So the small and marginal fruits growers got a very small share of the profit. These kinds of arrangement also discourage the small growers to take any initiative in this sector. The new arrangement by individual fruit growers has shown a positive trend in terms of small planter participation and increasing the number of cooperative societies members.

In Baramulla, the number of these societies is maximum and in Kargil it is minimum (Table IV.6). The membership of the societies shows the unity of the fruit growers. If certain initiatives could be made to mobilise fruit growers to form cooperatives, which could be provided with the necessary credit and other inputs, it would solve lots of problems, which this sector is facing at present.

Table IV.6
District-Wise Numbers of Societies and members, 1999-2000

District	Numbers of societies	Membership (Cultivation)
Anantnag	35	2857
Pulwama	27	1769
Srinagar	9	612
Badgam	23	2095
Baramulla	58	4960
Kupwara	25	2192
Leh	-	--
Kargil	4	129
Jammu	19	857
Udhampur	19	917
Doda	15	698
Kathua	8	385
Rajouri	6	383
Poonch	10	859

Source: Digest of Statistics, Jammu and Kashmir, 1999-2000.

The other area where private initiative has taken place is the establishment of private nurseries. About 256 private fruit plant nurseries have been established in far-flung areas of the state. This has helped the farmers to access their quality fruit plant requirement within their easy reach. A lot of private initiative is needed in the fruits processing and packing industry.

CHALLENGES AND OPPORTUNITIES

It is observed from the above that the topography and agro-climatic conditions in the region limit the scope for the production of field crops. It was observed that available land in this agro-climatic region has been experienced to be economically more suitable for the cultivation of horticulture crops. The cultivation of fruits plants per acre of land provides a comparatively larger volume of employment opportunities to the local people than the cultivation of agricultural crops. A significant level of increase in the labour absorption in apple cultivation over the last few years also reflects the importance of horticulture for the overall development of the area.

There is a need to lay stress on the cultivation of other fruits as well. Therefore, the diversification of the kinds and varieties of fruits should be an important strategy for development. States like Maharashtra are continuously adding substantial hectares of land every year to their orchard areas. In this case, some districts like Kupwara, Doda and Poonch have, during the past few years, made considerable headway in resource allocations from rural development programmes to horticulture. In these

districts, the pace of development of horticulture has, therefore, increased almost three times. There is a need to allocate substantial resources from rural development to the programmes of horticulture development during the next Five-Year Plan. As rural development programmes are mostly oriented towards creating job opportunities, horticulture development would prove to be the best investment in this direction as one-time investment made in plantation programmes has the potential to provide job opportunities for a long period.

STRENGTHS FOR THE DEVELOPMENT OF HORTICULTURE

1. The state has a variety of agro-climatic conditions ranging from sub-tropical, sub temperate, temperate and cold arid. Each agro-climatic region has its own potential to grow specific fruit, providing an opportunity to grow a variety of fruits during the major part of the year.
2. The soils are deep and rich in organic matter.
3. The demand for the temperate fruits from within the country is large and potential for export of fresh fruits to the neighbouring countries is enormous.
4. The state has a monopoly in growing some kinds of fruits like walnut, almond good quality pear, cherry, hazelnuts, pecan-nut, strawberry and kiwi fruits.
5. International market for walnuts, almonds and apples.
6. Farm labour is available in abundance.

WEAKNESS THAT NEED ATTENTION FOR THE DEVELOPMENT OF HORTICULTURE SECTOR

1. Low productivity
2. Great variability in important crops like walnut and almond
3. Higher percentage of “off grade” fruit
4. Poor connectivity with the market place
5. Small and fragmented land holding
6. More than 90 per cent fruit growers fall in small and marginal categories and therefore, investment in modern infrastructure and technologies at individual level is not feasible.
7. Poor post-harvest management and absence of processing facilities.

OPPORTUNITIES FOR INVESTMENT IN THE HORTICULTURE SECTOR

1. The diverse agro-climatic condition of the state offers great potential for growing a variety of fruits like mango, litchi, apricot, plum, peach to apple, walnut, almond and cherry.
2. The state has the monopoly in growing fruit crops like walnuts, almonds, cherries and good quality pears.
3. Better air connectivity with major consuming centres of the country offers potential for production and exports of perishable high value low volume fruit crops like strawberries and cherries.
4. Enormous demand for fruits like walnut and cherries in the international market because of excellent taste and flavour.
5. Availability of raw material in abundance for establishing agriculture processing industry.
6. The prospects and opportunities for growing organic food and fruit products for supplying to the higher strata consumers of the country are enormous particularly during summer months.

POLICY RECOMMENDATIONS

1. One of the important problems that the cultivator in the state is facing is that of proper marketing. The fruits growers market their produce through various channels. However, most of the small growers sell their produce to pre-harvest contractors. The most important sales channel is the forwarding agent, i.e., sales through commission agents. The co-operative marketing channels have not yet achieved an important place in marketing network in the state. So most of the marginal and small orchards depends on the pre-harvest contractors and commission agents, which reduce the marketing margin considerably. To ensure sustained employment and income in the horticulture sector it is essential for the state to provide proper marketing facilities to the cultivator. Government should promote the private initiative also in the marketing of the products.
2. APEDA should be encouraged to set up an Export Promotion Zone to promote the export of selected fruits and vegetables including strawberry, mushroom and cumin seed.
3. The government should assume a lead role in the horticulture development and fruit processing industry that can build the confidence of the private investor.

4. The government should lay emphasis on research. Not much work seems to have been done in the temperate area. Only SKUAST has done some work. The state should establish collaboration with the institution, which developed certain technology, like tissue culture that is very important for horticulture development. Emphasis should be made on optimum use of land by using high-density apple crops.
5. The state should popularize the brand equity of the state as Kashmiri that can be used for all the products.
6. There is a need for improvement in the post-harvest handling of fruits.
7. The state should promote development of a growers association that can quantify the quality of the product into Grade A, Grade B, etc. that have an established trust in the market. The low variety of the fruit should be used at the processing industry.
8. There is a need to develop more nurseries in the state.
9. The department should take certain initiative for the development of new varieties of fruits like kiwi fruit, wild apricot, etc.
10. A new variety of cherries called “black cherry” from Italy has been tried on a limited scale. This variety along with other bigger and sweeter varieties of cherry from Europe needs to be introduced in the valley. Similarly large, luscious variety of peaches, particularly those from California (USA) and Europe need to be introduced in the valley.
11. A variety of apricot called “Hallman”, brought from Central Asia was introduced in the Ladakh region many decades ago. This variety is quite high yielding and produces very sweet apricots. Unfortunately there are no facilities for processing or drying of apricots. As a result, the wastage of apricot which is a highly perishable fruit, is enormous. The farmers of Ladakh region dry the apricots in sun on rooftops, a process which is quite time consuming and not very hygienic. Better and latest facilities for drying up and processing of apricots need to be introduced in Ladakh.
12. In the Jammu region, particularly in the districts of Udhampur and Doda, olive cultivation was introduced a couple of decades ago. It was a success but here the problem of processing poses a formidable obstacle. Top work of olive was undertaken on wild olive trees that are found in Udhampur and Doda districts. A small-scale olive processing plant has been set up in Ramban by the state government but here again, for want of appropriate technology, the oil extracted is not very clear and free from residue.

13. A small area in the valley, Pampore has the virtual monopoly of saffron cultivation in the country. Kashmir saffron is a high value, low volume crop and the quality of saffron is among the best in the world $\frac{3}{4}$ particularly because of its rich colour and flavour. Some tentative attempts were made to introduce saffron cultivation in Kishtwar tehsil of Doda district but without much success. There is need to increase saffron production by introducing saffron cultivation in areas adjacent to present saffron producing areas of Pampore.
14. The state produces very limited quantities of deera (zeera); the best jeera is cultivated at Gurez (Baramulla district) and Drass (in Kargil area of Ladakh region) This jeera is highly prized because of its flavour and fetches premium price in the Indian markets. There is need to expand area under jeera cultivation.
15. The climate of the state is ideally suited for production of exotic, high value vegetable crops like broccoli, asparagus and mushrooms. While asparagus thrives in the valley, broccoli and mushroom can be grown profitably in the Jammu region. What is needed is a planned, integrated approach which takes care of the production as well as marketing of these perishable, high value crops.
16. Another perishable but high value crop, the cultivation of which has been successfully tried in Jammu region, is strawberry. The state government should take a leaf out of strawberry cultivation and marketing undertaken in the states of Maharashtra (Pune region) and Gujarat (Saurashtra region).
17. It is ironical that a state like Jammu and Kashmir is deficit in vegetables and has to get vegetables from neighbouring Punjab to fulfill its requirements. The diversion to vegetable cultivation from traditional crop can easily increase (at least double) the income of the farmers. A vegetable belt needs to be created in Udhampur district in the neighbourhood of Vaishno Devi shrine which is visited by lakhs of pilgrim from all over India every year and which provides a ready market for vegetables grown.
18. The soil of Ladakh region is ideally suited for cultivation of “hops” used in brewing beer and production of potato seeds. Both these products are high value items. There is a ready market for hops in the neighbouring state of Himachal Pradesh, which has a couple of breweries while potato seeds will have a ready demand in Himachal Pradesh, Haryana and Western Uttar Pradesh.

19. Of late, the demand for herbs has seen a significant growth all over the world, due to the popularity of alternative systems of medicine. Both the Regional Research Laboratory Jammu and Defence Research Laboratory, Leh have done commendable work on herbs grown in the state and brought out literature on the subject. In view of the exponential growth in demand for herbs, private capital and enterprise need to be attracted in this sector. The state government should formulate a policy under which land could be leased out to prospective entrepreneurs for setting up herbal farms. Processing of herbs also needs to be looked into so that there is value addition in the state itself.
20. Since many fruits grown in the state as well as vegetables are perishable items, it is essential to reduce the time lag between their procurement and marketing. Since Leh, Srinagar and Jammu are connected by air there is need to work out arrangements with the airlines operating to this airport for transport of cargo to centers of consumption like Delhi, Chandigarh and Mumbai.
21. The farmers living in Ladakh region have successfully experimented with cultivation of vegetables in the glass houses (poly-houses). This can ensure supply of vegetables to metropolitan cities during off-season when vegetables can fetch good price. While from Jammu vegetables and strawberries can be transported in refrigerated vans (which need to be made available) the only viable mode of transport from Ladakh is air transport. Hence the need for working out an arrangement under fast transport system can be organized. If need be, initially, an airfreight subsidy for transport of such cargo may be considered.

2. HANDLOOM AND HANDICRAFT

INTRODUCTION

Kashmir is known throughout the world as much for its arts and crafts as for its scenic beauty and bracing climate. Its crafts range from woollen textiles of fleecy soft texture of matchless excellence in weaving, hand-woven carpets of the finest warp and weft, to the exquisite designs worked on papier-mâché, wood work, silverware, etc. They are products of unique craftsmanship. The skill of the craftsmen and their capacity for intricate workmanship are assets, which can help development on a much larger scale. Moreover, as an export-oriented sector, it is instrumental in foreign exchange earnings worth crores of rupees annually.

In a state where handicrafts have already proved their worth and where there are vast areas so remote as to make it impossible for major modern industries to be set up, a vigorous policy for developing handicrafts can be specially rewarding. The capital investment in handicrafts is low, their employment potential high and their location can be in the remotest parts of the state.

Like handicrafts, the handloom industry is also the oldest traditional cottage industry in the state. *The importance of this sector lies in the fact that it has enormous employment potential, it does not consume scarce resources, does not cause pollution and is environment friendly. The social cost benefit ratio, therefore of all investment in this sector goes up manifold.* J&K is famous for the weaving of specialized fabrics like pashmina and kani shawls, silken, woollen and cotton fabrics.

ARTS AND CRAFTS

The three regions of the state – Jammu, Kashmir and Ladakh – specialise in different crafts. The main crafts of the three regions are:

1. Jammu – Basholi Painting, Calico Painting, Phoolkari.
2. Kashmir – Carpets, Kashmiri Shawls, Wood Carving, Papier-mache, Chainstitch, Crewel, Namda.
3. Ladakh – Wood carving & Painting, Clay Moulding, Ladakh Pashmina Weaving, Ladakh Carpet, Thanka and Fresha Painting.

The following paragraphs discuss them in detail.

TRADITIONAL RUGS

A *Namda* is warm, colourful, inexpensive floor covering made out of pressed felt. Rectangular, oval or round, embroidered in chain stitch, *Namdas* are found mainly in Srinagar and Kupwara district.

Gabba is the common man's carpet made on the outskirts of Anantnag town and nearby villages. Traditionally pieces of waste blankets were sewn together and embroidered. Today barrack blankets are used. Gabbas are embroidered or appliquéd in geometric patterns in brilliant primary colours. Srinagar, Anantnag and Baramulla are the main production centres.

The Handloom Development Corporation has fabrics such as *dosooti*, a heavy cotton with double twisted yarn, mostly used for Kashmir's famous crewel embroidery. *Samba* in the Jammu region produce cotton sheets called *masnads* or *jajams* popularly used for floor coverings. Quilt covers, bedspreads, table-linen, running fabric are also manufactured. Cotton durries are woven in Jammu.

SHAWLS AND OTHER WOOLLENS

Spinning is done by the womenfolk of virtually every household and weaving in Kashmir and Ladakh is exclusively a man's work. Rural people wear *pattu*, a rough tweed-like material produced in a variety of weights and widths. In winter, heavy shawls known as *chadars* serve as blankets. They have a number of different designs, each characteristic of the area where it is made. Quality tweeds, using local wool prepared under commercial conditions have a wide range of designs. Outlets are in Srinagar at Poshish (state government handloom emporium) Pratap Park, Khadi Bhandars and Anjuman-e-Dastakar. Marino-wool shawls and blankets are also found there. Kishtwar has *chadars* using wool, coloured with local vegetable and mineral dyes in bold checks or natural shades. They are woven in Bhadarwah, Ramnagar, Lati, Dudoo, Basantagarh, Banni, Billawar, Poonch and Rajouri in the Jammu region.

Ladakh has at least one or two weavers in every village. A portable loom is usually set up outdoors in summer. Traditionally, vegetable dyes were used to colour the yarn.

Pashm and *tus*, the extra soft yarn from Ladakh, provides the foundation for

Kashmir's shawl industry. Ladakhis weave these into soft thick natural colour shawls and scarves, but spinning and weaving is finest in Kashmir. The elaborate *kani* shawl which was introduced by Zain-ul-Abidin and spanned through the Moghul, Afghan and Sikh rule are primarily found in the tiny village of Kanihama near Srinagar where young men revive the old *kani* tradition. Srinagar is known for the finest pashmina shawls.

The state government agencies have revived old colours and designs of classic embroidered pashmina shawls. Bani (Kathua district in the Jammu region) produces affordable and popular pashmina shawls. Pashmina fabric is referred to as 'Cashmere' in other parts of the world. Main production centres of woollen articles in Kashmir are Gurez, Tillel, Bandipur, Nadihal, Kazipora and Papchal (well known for kandidar or bordered chadars), Lolab valley, Badgam, Beerwah, Chadoora, Inder Gadodar, Pulwama, Tral, Shopian, Sophare, Handwara, Magam and Tarzoo.

EMBROIDERY

Embroidery is a commercial activity, organized professionally under the technical guidance of master craftsmen. Except for zari work, embroidery has been the prerogative of males. *Sozani* or fine needle-work done by a sozankar is the execution of the darn and herringbone stitch in silk thread on pashmina shawls, high quality *raffal* shawls, stoles, and furnishings. Satin stitch, chain stitch, buttonhole stitch, slanted darn stitch, stem stitch, herringbone stitch and the knot-stitch are some of the many stitches used in Kashmiri embroidery.

Though a popular occupation in all districts, embroidery is mainly concentrated in Srinagar and Badgam. Chain stitch is used on a variety of fabrics from hand-woven cloth made from double-twisted yarn called *dosootis* to wool, silk and cotton used mostly for upholsteries, curtains, soft-leathers, cushions, garments and floor coverings. It is also known as crewelwork. Excellence in wielding the needle created the *dorukha* embroidery in which the upper and the under-sides are both embroidered in different sets of colours, repeating the very same design to obtain a reverse mirror image. In the areas surrounding Anantnag in Kashmir, many people are engaged in embroidering raffal and pashmina shawls, *pherans* (a loose over gown worn by men and women), cotton dosooti fabric, gabbas, namdas. The traditional dogra embroidery of Jammu known as *phulkari* is rooted in Punjab and Haryana. Unfinished, home dyed silk floss is used as the embroidery thread.

CARPETS

Introduced to Kashmir by Sultan Zain-ul-Abedin in the 15th century, the Kashmir carpet ranks amongst the finest in the world today. The weaver takes special pride in his ability to accurately reproduce Persian, Turkish, Turkman, Caucasian, antique Kashmir Moghul and Jaipur Moghul patterns. *Amlikar* or paisley shawl patterns were introduced in the early 1960s. Some of the well-known designs are:

- i) Mohtashan Kashan (a well known Persian design – a central medallion with floral motifs all around),
- ii) Syrk Turkman (an antique Syrk rug named after the tribe who first wove these),
- iii) Shikargah (copied from a Moghul painting, depicting princes hunting in a jungle),
- iv) Kashmir Qum (Persian in origin, the design consists of assorted panels which are repeated),
- v) Turkman Princes Bukhara (based on a candlestand holder pattern),
- vi) Kashmir Moghul (a bold geometric and floral effect),
- vii) Kashmir Kashan (depicting the Tree of Life). Flowers, animals and birds are also sometimes introduced in Kashmir Kashan.

Carpets are woven in wool or silk and now artificial silk as well, in the districts of Srinagar, Badgam, Kupwara, Pulwama, Baramulla and Anantnag. In Srinagar there are outlets in Residency Road, Polo View, the Bund, Boulevard and around Dal and Nagin lakes. The Kashmir Government Arts Emporium and its branches all over the country have big carpet sections.

Ladakh produces quality carpets made of pure wool in glowing colours with distinct designs – dragon, snow-lion, and stylized crysanthemum and lotus motifs. Patterns are also taken from Buddhist iconography. Interesting geometrical patterns are also made with the border in diagonal lines. Carpets here have a distinctly Tibetan influence. *Tsukdan* is woven out of yak's hair in the Chang Thang area. Extreme climate the year round necessitates this floor covering which is spread out for ceremonies and feasts. *Tsuk-tul* is yet another type of floor covering in Ladakh. Woven strips of 9" width are stitched together to form a floor spread which can also be used as a blanket. The woollen yarn used is of local variety and is known for its luxurious warmth. It is made in Kargil and the adjoining villages. Carpets are

woven in the following districts - Srinagar, Badgam, Anantnag, Pulwama, Baramulla, Kupwara, Kathua, Udhampur and Poonch.

SILK

Silk weaving was introduced to Kashmir by Maharaja Pratap Singh in the late 19th and early 20th century. In and around Srinagar, the small silk industry produces exclusive super-fine quality silk-chiffon, chinon, tabby, crepe, charmoise satin, satin and habutti silk. Saris are sent out of the state for printing and are sold in most textile shops in the state. In Jammu villages' women make tasseled ornaments to bind their hair while men weave fine cords to tie their pyjamas.

METAL WORK

Copper is still the most popular metal for household use in Kashmir. Plain, beaten, embossed or engraved, copper is used to make a variety of utensils both for daily and festive occasions. The major production centre in the valley is Srinagar. Various types of domestic vessels used for cooking and serving food are made from brass, copper and bronze. Besides cooking vessels, samovars, tumblers, bowls, cups, plates, trays, and ladles are made, often embellished with highly stylized motifs like *badam* (almond), *mehrab* (arch), chinar-leaf and intertwining vine.

Jammu is known for its traditional casting of large and small vessels, hukka bowls, statues and hand beaten sheet metal work. A large brass vessel called *sangla* made by pouring molten brass into mud-moulds is a dying craft, practised by a handful of artisans. Jammu city, Udhampur, Samba and Basholi practise this traditional craft.

The silver work of Kashmir is extremely beautiful and some of the indigenous patterns, like the chinar and lotus leaf, are of exquisite design. Handmade pieces of high quality workmanship are available in Srinagar. Articles include cups, bowls, plates, tumblers, trays, tea and coffee pots, dinner sets, goblets, boxes, vases, trinket boxes and cigarette cases.

Metalwork in Ladakh is a highly evolved craft. Religious objects are made out of copper and brass and embellished with silver. Silversmiths also make teapots, chhang-pots, bowls, ladles and other utensils that decorate the shelves of each kitchen. The best known silversmiths live in the village of Chiling in Zanskar valley. This area is rich in copper.

The blacksmiths of Ladakh are indispensable to community life. Known as *gara* they manufacture iron-stoves, locks and keys and also fashion conch-bangles. They also repair and manufacture agricultural implements. Their highly ornamental kitchen stoves are in great demand with the local population. Introduced in Kashmir towards the end of the 19th century, turquoise work mosaic in brass wherein tiny chips of dyed turquoise are set in the metal are also in great demand. Articles like ashtrays, jewellery, boxes, vases, necklaces, brooches, ear-studs and bangles are made with this technique.

POTTERY

The traditional potter of Ladakh earns a living by making the various mud bowls, jugs, tea kettles and braziers required in the peasant's home. The local barley beer, *chhang*, is stored in the *zoma*, a wide vessel, narrowing at the neck and opening again into a wide mouth. Likir village near Leh is a good place to see work in progress. Utilitarian earthenware is still in demand for domestic use, particularly in rural areas. Low priced and colourful clay containers are used to store water, set curds and cook vegetable and meat. The Kashmir potter also makes symbolic objects linked with the Shivratri festival, clay-containers for the kangri bowls and chillums containing smouldering embers for the hukka. In Srinagar the most durable and popular glazed pottery is manufactured at Rainawari. Commonly known as Dalgate pottery, these vessels are coated with a deep brown or green glaze produced with glass powder.

Rural pottery found in Charar-e-Sharif is painted red and blue and is occasionally decorated with white and green flowers. Mud-pots for storing water and cooking continue to be widely used in every village home. Aristocratic urban homes in Jammu use large earthen storage jars called math. Lightly decorated and fired at high temperatures, these vessels last almost a life-time and are used for storing wheat, rice, sugar and pulses.

STONE CRAFT

Beautiful temples, idols and monuments testify to stone carving being an ancient craft in Jammu & Kashmir. Athwajan, close to Srinagar is known for its stone work, chiselled stone for paths, pillars, grinding stones and gravestones. Sculpted and inscribed stones in Ladakh speak of the deep-rooted tradition of this craft. Today, carving turquoise for the ceremonial Ladakhi headdress, cups and other items made

from precious stones, and shaping stones for various ornaments keeps the traditional stone carver busy. Cooking at extremely high altitudes is a lengthy process and a heavy stone lid serves as a pressure cooker. Lamps, frying pans, griddles and chhang-pots in stone are supplied via Nubra from village Thukmus near Siksa in Ladakh.

PAINTING

Jammu was known for its celebrated Dogra style of miniature painting during the late seventeenth and eighteenth century. The art was rooted in the town of Basohli. Other places were Jammu, Poonch and Ramkot. Reproductions of these miniature paintings are available at Basohli where training now revives the art.

Scrolls of paper, painted over with beautiful images of the Buddha, his disciples, tantrik symbols and natural elements like fire, water, animal life, are known as tankhas in Ladakh. The monastries have a valuable collection of old tankhas. Tankha painting continues even today in centres at Leh. Mineral and vegetable colours are still being used.

PAPIER-MACHÉ

A Central Asian craft, it consists of using paper pulp as a base to manufacture finely painted and lacquered ware. Substitutes like wood, cardboard and leather are also utilized for the typical surface decoration.

Kari-i-Kalamandani (the original local name of the craft) was heavily patronized by the Mughals. Mughal kings often commissioned entire communities of craftsmen to make gifts as well as decorative panels and other items for palaces.

A wide range of items for everyday use includes writing tables sets, dressing tableware, bangles, lamp stands, cups, bowls, vases, boxes, wall-plaues, panels, screens, cabinets, Christmas decorations, mirror-holders and frames. A traditional craft with the Shia community, the papier-mache craft has many outlets in Srinagar.

In Ladakh, masks are made out of paper pulp and painted in bright colours, personifying deities and evil spirits. They are essential to the plays performed in the monastries.

NOMAD CRAFTS

Nomad Gujjar and Bakarwal women wear heavy silver jewellery. This has given rise to a number of silversmiths along their travel routes, who cater to the particular needs of the nomadic people and their traditions. Nomad jewellery made of brass, silver or white metal has a bold, dramatic quality typical of folk and tribal jewellery worn all over India. Jewellers in Riasi, Bardhawah, Kathua, Samba, Doda, Kishtwar and Basohli specialize in making ornaments worn only by Gujjars and Bakarwals. Much of the discarded jewellery is sold by weight and available in tiny jeweller shops in the bye-lanes of old Srinagar.

ORNAMENTS

In the valley, Srinagar has been the centre for the manufacture of both precious and semi-precious jewellery. In the vicinity of the Third Bridge, silver and gold leaf makers, copper workers, silversmiths and goldsmiths make traditional ornaments. Other places are Mira Masjid, Rajouri Kadal and Kahnyar Bazaar. Jhulaka Mohalla in Jammu city still houses goldsmiths who repeat the traditional designs of Dogra jewellery. The rural women in Jammu wear silver anklets, the *chaunk phool* (a unique metallic cap or crown), bangles and the *taviz* (talisman) at weddings and villages fairs. Pure silver or silver alloys are used in the villages.

The Balti peasant woman, near Drass and Kargil, wears heavy and elaborate silver earrings. Beyond Kargil, where the influence is Central Asian, turquoises, large and tiny pearls, coral, agate and cornelia dominate. Goldsmiths make fine filigree charm boxes and amulets while the women themselves string stones together to make simple necklaces. Jewellery is made in the bye-lanes perpendicular to the main bazaar in Leh. Much of the jewellery sold here is Tibetan or Kashmiri and passed off as Ladakhi.

STRAW, WILLOW AND GRASSWORK

Local grasses, straw and wicker are found abundantly in nature. The *kangri* is a small quaint earthenware bowl held in a frame of decoratively woven willow. Used constantly by Kashmiris in the winter months as a body warmer, the kangri is an integral part of wedding rituals for both Hindu and Muslim weddings. Charar-e-Sharif is known for its ornamental kangris for festive occasions. Lolab and Sopore make sturdy kangris.

A wide variety of willow basketry is carried out in Srinagar and its environs. The locality surrounding the famed Hazratbal mosque in Srinagar is dotted with shops where craftsmen produce sofa sets, tables, baskets, picnic hampers and lampshades. The craft is concentrated in Srinagar, Hazratbal, Soura, Haren and Shalabag (in Ganderbal and Anchar), Doru, Dyalgam, in Qoimoh in Anantnag town and at Charar-e-sharif in Badgam district.

Baskets, trays and various types of containers made of willow or wickerwork are also found in Baderwah and Doda town in Jammu district.

The reed mace, a swamp plant locally called 'pits' is used to make strong floor matting called *waggu*. The villagers of Lasjan, south of Srinagar, are perhaps the best matmakers. Used in houseboats and rural homes for added warmth under carpets. In Kishtwar and neighbouring villages of Sarkoot and Sangram Bhata, baskets, mats, containers and trays made of exceptionally lustrous straw are delicately decorated with bright woollen strands of threads.

Simple and functional baskets are made out of bamboo in the Kathua district in Jammu region. More recent production includes articles of urban interest - furniture, paper trays, lampshades, fruit bowls, flower vases, table mats, magazine racks. Sungwali, Nagari Parole, Airwan, Good and Kore-Punee villages in Jammu region produce mats, baskets, hand fans and other household articles from the dried leaves of palm trees.

In Ladakh, the local term for willow is *malchang*. Willow baskets are extensively used as pack containers in every rural household. Another local reed called chipkiang, growing close to the Indus river, is used to make pack-baskets.

WOODWORK

Jammu and Kashmir, with its dense forests and wide variety of trees, has a rich tradition of woodcarving and architecture. *Khatumband* and *zali-pinjra* are two unique and traditional woodcrafts of Kashmir. In *khatumband*, excellent joinery and precise designing combine to create patterned ceiling panels. Look for this craft at Chattabal. *Zali-pinjra* (also known as *acchi-dar*) is a network of intersecting lines which make up latticed panels. Traditionally, windows, doors, railings, ventilators, ornamental partitions and screen were all done in *pinjra* work.

Walnut woodcarving is a common sight in contemporary workshops in Srinagar. A range of utilitarian and decorative objects – boxes, bowls, screens, panels, bedsteads, cupboards and cabinets – are made.

Anantnag and Jammu city are known for their lathe-cum-lacquer woodwork – ladles, rice measures, bedsteads and stools, spinning wheels, rolling pins, toys and child walkers. Thanamandi in Rajouri district is the main centre for *chikri* woodcraft. The most popular item is the comb. Used by the village women of Jammu and Kashmir, these combs were also a great favourite of Mughal princesses. The product range has been widened to include spoons, table knives, tooth-picks, bowls and cups and ashtrays. In Ladakh, joinery and handcarving are used to make furniture – low tables, larger tables and cupboards as well as bowls used for Buddhist rituals. All woodwork in Ladakh is painted in bright colours.

LEATHER

A wide range of leather and suede shoes, gloves, coats and suitcases is all made by hand in custom-made designs. Jammu has long been famous for its zari-embroidered leather footwear. Artisans of Dhakki Sirajan in Jammu city and Machhedi and Bani in Kathua district are best known. *Paboo* are traditional Ladakhi boots made out of hessain cloth, used wool felt, coarse hair of the yak and goat, woollen tweed and leather for the sole which protect feet against frostbite. These shoes are made in Leh.

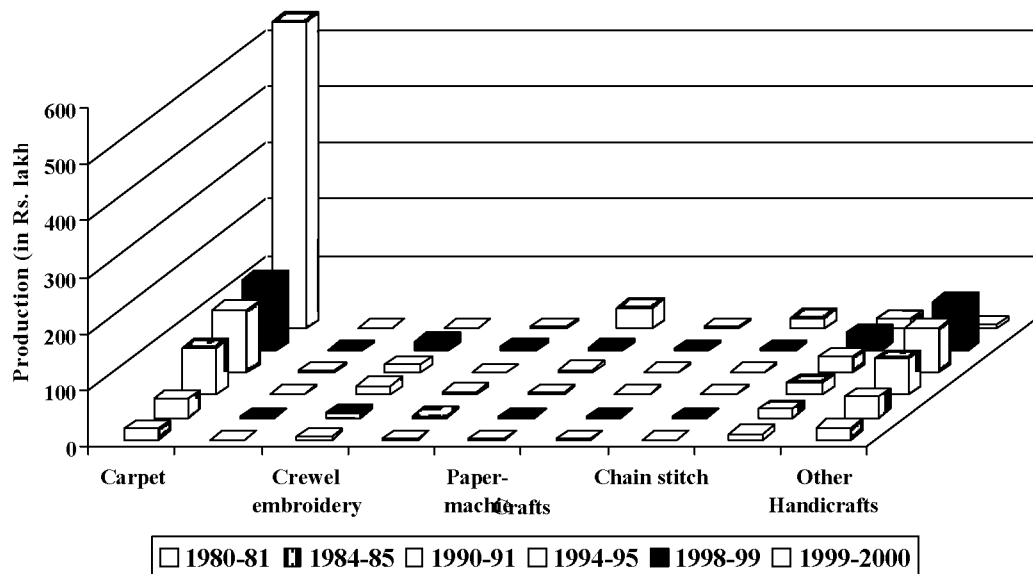
PRODUCTION OF DIFFERENT HANDICRAFT AND HANDLOOM PRODUCTS IN THE STATE

Table IV.7 and Figure 1 shows the craftwise production in the handicraft sector between 1980-81 and 1999-2000. The overall production of the handicraft sector has been quite encouraging as the production in terms of rupees increased from 280 lakh in 1998-99 to 633 lakh in 1999-2000, thereby registering a growth of 126.07 per cent.

Table IV. 7
Craftwise Production in the Handicraft industry

Handicraft Products	Production (Rs. in lakh)					
	1980-81	1984-85	1990-91	1994-95	1998-99	1999-2000
Carpet	19.04	32.48	84.55	111.71	126.1	541.00
<i>Namda</i>	0.48	1.40	2.90	3.08	0.83	0.89
Crewel embroidery	4.40	7.41	16.70	13.67	15.56	1.50
Wood carving	0.96	2.53	5.65	-	6.84	3.08
Papier-mâché	1.11	1.97	4.50	4.69	5.40	36.20
Fur & Leather	0.91	1.28	1.80	2.09	2.36	2.00
Chain stitch	0.23	0.50	2.25	2.60	3.02	18.00
Woolen Shawls	10.02	14.47	22.05	27.61	31.14	16.25
Other Handicrafts	20.67	36.41	65.00	79.55	86.05	6.00
Total	57.82	98.45	200.00	245.00	280.00	633.03

Fig. 1
Craftwise Production 1980-1981 to 1999-2000



The maximum increase was in the production of carpets. As the table indicates, between a ten-year period from 1990 to 2000, the growth in carpet production was to the tune of 539.86 per cent. But the real spurt in growth was only after 1998-99 as the production figures shot up from Rs. 126.1 lakh to Rs. 541 lakh in 1999-2000, a growth rate of 329.02 per cent. Among the other crafts, papier-mâché and chain stitch production also increased between the same period. As the production figures show, between 1998-99 and 1999-2000, there was a seven-fold increase in

papier-mâché production and six-fold increase in chain stitch production. The production in crewel embroidery, woodcarving and woolen shawls declined during the same period. The decline can be partly attributed to the increased demand for carpets both in the international and domestic markets. Tables IV.8 and Figure 2 shows the production of handicrafts in different cooperative societies.

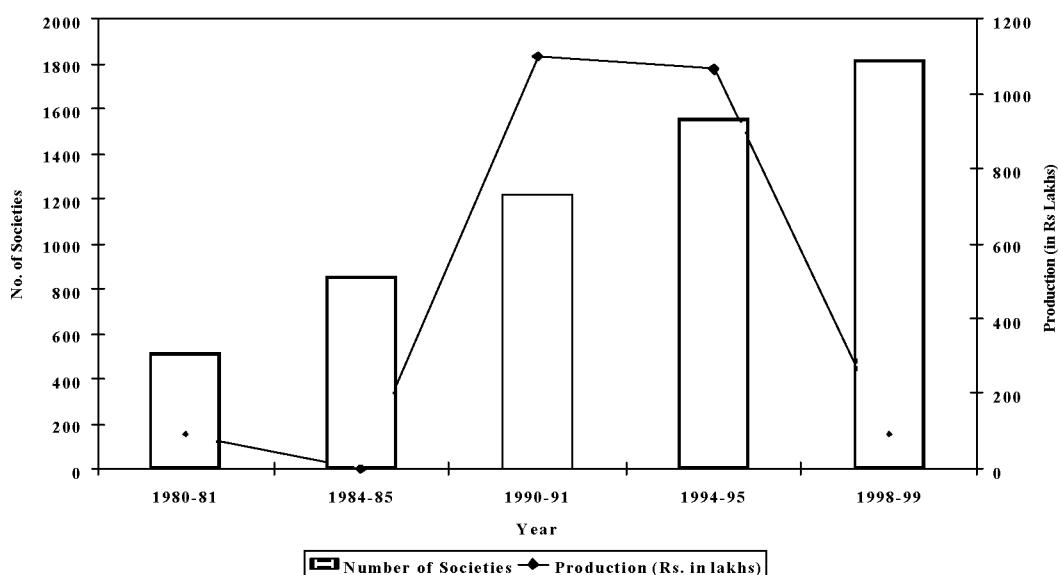
Table IV.8
Number of handicraft industrial and handloom co-operative societies and Production

Year	Number of Societies	Membership (lakh nos.)	Production (Rs. in lakh)
1980-81	515	0.18	92.34
1984-85	849	0.24	193.85#
1990-91	1284	0.31	1097.17
1991-92	1381	0.37	1174.59
1992-93	1440	0.42	954.24@
1993-94	1498	0.49	796.41@
1994-95	1557	0.57	1064.29
1995-96	1561	0.66	241.89
1996-97	1605	0.55	156.12
1997-98	1734	0.10	63.47
1998-99	1810	0.09	93.25

Note: # and @ Excluding figures in handloom, Kashmir Division

Source: 1. Director Handicrafts, 2. Joint Director Handloom, Kashmir #, 3. Director Handloom Jammu, quoted in Digest of Statistics, 1999-2000, Directorate of Economics & Statistics, Planning and Development Department, Government of Jammu & Kashmir

Fig.2
Production of Cooperative Societies



As is revealed from Table IV.8 and Figure 2, the number of cooperative societies has steadily increased to support the artisans of the state. The production till 1994-95 was almost at par with the 1990-91 production figures. After 1995 the production of the cooperative societies declined drastically to 241.89 and further to 93.25 in 1998-99. No satisfactory reason can be attributed to this decline, but corrective or remedial measures which are practical and can be easily implemented should be taken up.

EMPLOYMENT AND TRAINING IN HANDICRAFT AND HANDLOOM SECTORS

Training & Employment in Handicraft Sector

The production of such a variety of crafts both in the handloom and handicraft sector means that there is vast potential for employment in these sectors. Due to their importance in the economic front, this sector has always been a priority sector for the J&K government. Lakhs of people are employed in different units. Table IV.9 shows the craftwise employment pattern of the state during 1980-81 to 1999-2000.

Table IV. 9
Craftwise Employment 1980-81 to 1999-2000

Handicraft Products	Employment (in lakh)					
	1980-81	1984-85	1990-91	1994-95	1998-99	1999-2000
Carpet	0.47	0.61	0.74	0.79	0.83	0.89
<i>Namda</i>	0.02	0.03	0.05	0.06	0.08	0.08
Crewel embroidery	0.16	0.23	0.27	0.31	0.34	0.35
Wood carving	0.03	0.03	0.06	-	0.08	0.08
Paper-mache	0.03	0.05	0.06	0.07	0.08	0.09
Fur & Leather	0.02	0.03	0.04	0.05	0.07	0.07
Chain stitch	0.01	0.01	0.03	0.05	0.06	0.06
Woolen Shawls	0.37	0.43	0.51	0.70	0.81	0.82
Other Handicrafts	0.33	0.38	0.49	0.65	0.74	0.74
Total	1.44	1.80	2.25	2.70	3.10	3.20

Source: Directorate of Handicrafts, quoted in Digest of Statistics, 1999-2000 Govt. of J & K.

Table IV.9 reveals that carpet weaving and woollen shawls are the two most important units where most of the people are engaged followed by crewel embroidery.

Realizing the vast potential for employment, the J&K government has undertaken large-scale training programmes for the youth in different crafts using their inherent skills in learning and creating while conserving the past. Since 1974-75, over one lakh young artisans have been trained in various craft skills such as papier mache, woodcarving, chain stitch, staple embroidery and other art and craft forms of the region. Of these, 40,000 were trained in carpet weaving only. The employment

figures only restate the fact. Craft Training Centres have been set up in far-off areas like Gurez, Tulel, and Chycholi, Shama, Yougma and Chitken in Ladakh and in the backward areas of Rajouri and Poonch. Besides popularizing the crafts outside Kashmir Valley, some important Kashmiri handicrafts have also been introduced in training centres in places like Doda. Table IV.10 shows the number of handicraft training centres and trainees trained during the period 1980-81 and 1999-2000.

Table IV.10
Number of Handicraft Training Centres and trainees trained

Year	Directorate of Handicrafts		Other Agencies		Total (All agencies)	
	Tr. Centres	TT(lakh)	Tr. Centres	TT(lakh)	Tr. Centres	TT(lakh)
1980-81	421	0.04	180	0.07	601	0.11
1984-85	459	0.08	293	0.05	752	0.13
1990-91	513	0.08	N.A	N.A	513	0.08
1994-95	535	0.08	100	0.01	635	0.09
1999-00	553	0.09	87	-	553	0.09

Note: Tr. = Training, TT = Trainees trained.

Source: Digest of Statistics, 1999-2000 Govt. of J & K.

The number of training centres has increased considerably during the period recording a growth rate of 24 per cent between 1980-81 and 1999-2000. The Directorate of Handicrafts has become important over the years, as the number of the training centres of other agencies has sharply declined. Every year, as Table IV.10 reveals, around 8 to 9 thousand trainees are trained in different crafts.

TRAINING AND EMPLOYMENT IN HANDLOOM SECTOR

Appendix 1 gives the details of the training centres in different districts and the crafts trained. The total training centres are 506 in number. The number of training centres at present is maximum for staple (77), followed by sozni (74), crewel (67), carpet (62). Besides the crafts mentioned in Appendix 1, training of a variety of other crafts is also given in the districts.

Table IV. 11
Number of Handloom Training Centres and Trainees Trained
by the Directorate of Handloom

Handloom Training Centres in	1977-78		1984-85		1990-91		1994-95		1999-00	
	T.C	T.T	T.C	T.T	T.C	T.T	T.C	T.T	T.C	T.T
Handloom Weaving	12	150	43	400	58	546	57	512	59	NA
Readymade Garments	-	-	20	256	22	332	22	233	22	NA
Calico Printing	-	-	-	-	-	-	-	-	-	-
Other handloom/Design Weaving Training Centres	1	10	-	-	7	119	7	99	-	-
Total	13	160	63	656	87	997	86	844	87	480

T.C Training Centres; T.T Trainees Trained.

Source: Digest of Statistics 1999-2000.

In **Rajouri district**, a sum of Rs. 229.16 lakh has been incurred during past five years in the handicrafts sector. The department imparted training in Kashmiri and Dogri, Himachaly crafts to 3487 persons at its 23 training centres.

In **Udhampur**, under handloom sector, five centres of weaving and readymade garments are functioning. Stipend amounting to Rs. 3.07 lakh has been disbursed among 300 youth trained from 1996-97 to 2000-2001. Under the handicraft sector 1358 youth were imparted training.

In **Doda**, 27 training centres including 10 advanced training centres are presently engaged in various handicrafts like, crewel, stapple, sozni phoolkari, wheat straw, and carpet making, etc. During 2000-2001, 370 females were imparted training in these crafts. An amount of Rs. 90770/- was realized by this sector with the sale of products during the last year, while Rs. 52.29 lakh was spent under this sector during the period.

In **Budgam**, Rs.18.19 lakh was approved during 2000-2001 for the handloom sector. An expenditure of Rs. 18.47 lakh was incurred comprising Rs. 0.60 lakh as capital expenditure. The production of fabric was of the order of 2.72 m. metres against the target of 3.85m. metres. The co-operative sector under handloom contributed production of 0.22 m. metres and unorganised sector contributed to the production of 2.50 m. metres during 2000-01. Kani shawl is a valuable art of the valley, which is produced only in Kanihama village of district Budgam. It is highly recommended that the kani shawl-producing centres are spread in the adjoining villages and the craftsmen trained accordingly. Co-operatives of local weavers in this direction will be of great help. This art was given a boost by deputing some groups to Delhi, on the expenses of Rural Development Agency, to attend the training programme of design making in the Kani shawl art. One group of officers/ weavers of the district was deputed in March 2001 to attend the training programme of self-help groups at Delhi, to boost the establishment of self-help groups to curb the unemployment problem in the district. The revamped scheme has yielded better results for income generation. Moreover, the private sector needs to be involved in the marketing of Kani shawls for better results.

In **Pulwama**, the handicrafts sector plays a very important role in generating employment potential for rural youth. The department is imparting training in different crafts and thus plays an important role in extending the base of the

handicrafts industry. Advanced training is being imparted in 9 training centres while elementary training is being given in 15 other training centres of the district. Stipend amounting to Rs. 8.50 lakh has been paid to 625 trainees in the 24 training centres during the last year. Out of 139 societies registered, so far 35 societies are actively functioning in the district at present. Against a production target of Rs. 2.16 lakh, goods worth, Rs 3 lakh have been sold after March 2001 in the district. The department is providing training to 650 trainees yearly and has trained 6061 youths in different crafts till now. Against an allocation of Rs. 1.17 crore, an expenditure of about Rs. 114.58 lakh has been registered by the department ending March 2001. The department has registered 231 artisans belonging to different crafts till March 2001. Besides, one training centre was established at Batnoor Trall for imparting training in crewel work during the year 2000-2001. As many as 25 candidates belonging to backward communities have already completed the said course.

In order to improve the economic condition of the weaker section and unemployed youth, the Handicrafts Department is imparting training to the rural youth in Kupwara in various crafts so that they can set up their own small-scale units. The department trained 120 young men or women in various crafts, registered 25 artisan units and set up one handicraft society during the year 2000-2001. The yearly expenditure on the Handicraft sector has gone up to Rs. 44 lakh during the year 2000-2001. The department sold various articles prepared in training centres to the tune of Rs. 50,000. During the year 2001-2002, Rs. 39.40 lakh were being spent on this sector.

In **Leh**, the handicrafts department runs training centres in thanka-painting, clay moulding, Ladakhi garments, Pappu shoe, *Namda*-felt making, silver filigree, crewel embroidery and carpet weaving. Pashmina shawl weavers and Tibetan carpet weavers mostly women, are provided various incentives and marketing facilities for their products; training centres are also being run. Handloom is a common household activity in the district since long. As the raw wool and Pashmina is locally available in a large quantity, handloom is an economically viable occupation. At present six training-cum-production centres are functioning in the district. Besides, there is one mobile training-cum-demonstration centre. The main function of these centres, apart from manufacturing Pashmina and Marino shawls, is to impart training to village artisans in weaving, tailoring and manufacturing hosiery items.

MARKETING OF THE HANDICRAFT AND HANDLOOM PRODUCTS

The newly trained artisans are organised in cooperative societies as part of the self-employment programme and their goods are marketed through the Apex Marketing Federation. The Apex Marketing Federation was set in year 1978 to undertake marketing of handicrafts produced by the primary Handicraft Industrial Corporation societies affiliated to it and to provide raw material facilities to these societies.¹

Table IV.12
Number of Cooperative Societies and their Sales

Year	Number of Societies	Sales (Rs. in lakh)
1980-81	515	118.06
1984-85	849	125.50
1990-91	1284	787.26
1994-95	1557	123.43#
1998-99	1810	56.71

Source: Digest of Statistics, 1999-2000 Govt. of J&K.

Table IV.12 shows the amount of sale by the cooperative societies from 1980-81 to 1998-99. It was only in 1990-91 that the sale was Rs.787.26 lakh. Since then the amount has declined and in 1998-99 it was only Rs.56.71 lakh. In order to promote the sale of handicrafts, craft bazars, melas, national expos are regularly organized at national and international levels as an annual marketing cover to the artisans and traders. The department also organises trade fairs as an annual feature at Pragati Maidan in New Delhi. In this international fair, the producers and entrepreneurs are provided opportunities to exhibit their articles to create better awareness of their crafts among visitors.

Table IV. 13
Domestic Sales through J&K Handicrafts (Sales & Export) Corpn

	1980-81	1984-85	1990-91	1994-95	1999-00
Domestic Sales (Rs. in lakhs)	222.51	265.76	NA	270.49	560.30

Source: Digest of Statistics, 1999-2000 Govt. of J&K.

The Jammu and Kashmir Handicrafts (Sales and Export) Corporation intensified its efforts to provide marketing cover to the artisans by way of selling their products through its 22 sales outlets located in different states of the country. The domestic sale as depicted in Table IV.13 has considerably increased, and the maximum increase was between 1994-95 and 1999-2000. The Corporation registered a sales

¹ Jammu and Kashmir Eighth Five-Year Plan, 1992-1997, Handicrafts Department.

turnover of Rs. 810 crore during 2000-2001 as against annual turn over of Rs. 560 crore in 1999-2000². The improvement in the sales turnover is due to the new marketing strategy adopted coupled with the introduction of Management Information System (MIS) to monitor and evaluate the performance of the sales outlets.

To promote marketing facilities for the handicrafts/handloom products produced in the state, an Urban Haat is being set up in Jammu with central assistance to the tune of 70 per cent of the project cost. The Haat envisages provision of basic facilities such as setting up of stalls for display and demonstration of products, besides other basic facilities required by the buyers as well as sellers at one location. The work on this Urban Haat at the cost of Rs. 137 lakh was to be shared, the Government of India contributing Rs.95.90 lakh and State government's contribution amounting to Rs.41.10 lakh. The work is in progress at the Exhibition Ground, Jammu through JKPCC. The government of India in principle has also agreed to provide the financial assistance for the setting up of Urban Haat in Srinagar for the project at a cost of Rs.172 lakh; the proposal has been submitted to the Government of India.

The Ministry of Textiles/Development Commissioner, Handicrafts, Government of India have approved the setting up of Common Facility Center at Bagh-Ali-Mardhan Khan, Srinagar at a cost of Rs. 136 lakh; the central assistance would be to the tune of Rs. 95.20 lakh whereas the balance of Rs.40.80 lakh is being provided by the state Government. The Government of India has already released Rs. 47.60 lakh representing 50 per cent of the central share. With the setting up of the Common facility Centre at Srinagar, the facilities for carpet washing and drying, walnut wood seasoning and paper pulp making plant shall be provided to the artisans/craftsmen.³ But the question that comes to mind is: when will this Common Facility Centre be operational, when it is not time-bound? Second, will the facilities provided be available to private artisans? If yes, at what cost?

EXPORT OF HANDICRAFTS & HANDLOOM PRODUCTS

The handicrafts industry in Jammu and Kashmir occupies an important place in its economy and also makes significant contribution to its domestic and foreign exchange earnings besides providing employment to a large number of artisans and traders.

2 *Kashmir Times*, 18 March, Monday, 2002 & Jammu and Kashmir Govt. website, 'Measures underway to boost handicraft – Export Sample show rooms being opened shortly', *Newsline*, 18 July, 2001.

3 Industry on fast revival in J&K, Jammu, 18 September, 2001, *Newsline*, The Official Website of Jammu & Kashmir Government, India.

The state enjoys a prominent position on the world map of exports with regard to handicrafts and carpets. During 1999-2000, the state exported a record value of handicrafts exports estimated at Rs. 575 crore including carpet export to the tune of Rs.449 crore. The handicrafts sector provides employment to over 3.30 lakh artisans annually and the overall handicrafts production has registered a high a Rs. 663 crore up to March 2000. In fact, the handicrafts sector has helped Kashmir to sustain economically during the worst-ever trauma of the decade-long militancy when the entire socio-economic order got shattered. This is evident from the fact that the annual carpet production showed a steep increase from Rs. 293 crore in 1996 to Rs. 557 crore in March 2000.

The Jammu and Kashmir Handicrafts (S&E) Corporation in 2000-2001 for the first time achieved an export of Rs. two crore. The Corporation plans to set up an Export sample showroom in Delhi and Srinagar besides printing of an export catalogue to boost export of handicrafts through its sales outlets. The Corporation also plans to participate in International Trade Fairs to increase export of handicrafts in a big way.⁴

On account of having the advantage of a flexibility of a small production run, uniqueness, innovation and adaptability, the handloom sector can contribute towards export earnings in a big way. Export of handloom has therefore been identified as a 'thrust area' for the overall development of the sector. In order to give substantial impetus to the export of handloom fabric, made-ups and other handloom items from the country, a scheme for Development of Exportable Products and their Marketing was introduced during 1996-97. Under the scheme, the assistance is available for developing exportable products, building up production capability for export and thereafter marketing it.

Since the inception of the scheme in October 1996, funds released for Jammu and Kashmir are as follows:

Table IV.14
Funds Released Under Scheme for Development of
Export of Handloom Items

<i>(Rs. in lakh)</i>			
1996-97	1997-98	1999-2000	Total
2.54	8.75	2.64	13.93

Source: Ministry of Textiles website.

⁴ Ibid.

GOVERNMENT INITIATIVES AND SCHEMES

The Jammu and Kashmir government has accorded priority to industrial promotion with the objective of bringing in speedy socio-economic prosperity in the state and generating ample opportunities for employment. The handloom sector provides employment to about 22,109 persons annually and on the average 500 persons are trained in handloom training centres. In order to give boost to the handloom activity in the state, the government has undertaken several welfare measures for the weavers and for the modernization of the looms. About 1,292 looms have been modernized and 1892 artisans/weavers brought under the scheme. The Government of India and state government have also given assistance of Rs. 7000 in rural areas and Rs. 10,000 in urban areas for the construction of work-sheds. Weavers also provided loans for the purchase of looms and modernization of looms at lowest interest rates possible. Other welfare schemes include thrift fund, scholarship to daughters of weavers under the education scheme and medical reimbursement under the health package scheme.⁵ Under the Project Package scheme (PPS), need-based and area-based projects are formulated by the state governments to help weavers set up worksheds, selling outlets, dyeing units, modernization of looms, etc. During 1997-98, a total of 769 projects covering 6,499 weavers and costing Rs. 39.43 crore were sanctioned under the PPS.⁶

The Market Development Assistance (MDA), a centrally sponsored scheme with 50 per cent state contribution, has provided to the J&K State Handloom Development Corporation, two apex societies and 58 primary cooperative societies as a compensation for:

- (a) Interest subsidy;
- (b) Rebate discount/Consumer Incentives on non-Janta cloth, handloom products, and
- (c) Capital/ Margin money for setting up of showrooms, etc.

Moreover, the government has chalked out a time-bound programme to give a fillip to handloom sector in the state. About 100 new handloom cooperative societies and self-help groups (SHG) were to be set up by the end of 2001-2002 fiscal year, enabling handloom weavers to avail of wide range of special incentives under centrally sponsored *Deen Dayal Hathkargarh Protsahan Yojana (DDHPY)*.⁷ DDHPY

5 Annual Plan 1999-2000, Govt. of Jammu and Kashmir, Planning and Development Department, Srinagar.

6 Planning Commission, Annual Plan: 1999-2000, "Handlooms".

7 *Daily Excelsior*, 'Handloom Research and Design Dev. Centres soon: Kamal', 7 February Thursday, 2002.

has been introduced to provide assistance for product development, infrastructure and institutional support, training to weavers, supply of equipment and marketing support both at macro and micro level in an integrated and coordinated manner for an overall operations till the end of the 10th Five-Year Plan. The scheme could be broadly divided into the following components and categories in order to suit the requirement of the beneficiaries who can avail of one or more component on the basis of their requirement and as per their eligibility:

1. Basic Inputs
2. Infrastructure Support
3. Design Input
4. Publicity
5. Marketing Incentive
6. Transport subsidy
7. Strengthening of Handloom Organisations.

The grant cost of the projects is to be shared in the ratio of 50:50 between the Centre and the State Governments. In the case of Jammu and Kashmir, the sharing would be in the ratio of 90:10 between the central and state governments.⁸ Among other schemes, two handloom research and design development centres one each at Jammu and Srinagar would be set up during the 10th Five-Year Plan Period to develop new designs to suit the changing consumer preference and market trends. The same kind of initiative in the private sector should be encouraged, as it would be more useful and cost-effective. The handloom department has also introduced three-pronged strategies to check misuse of incentives provided to the weavers both in private as well as in the cooperative fold; introduction of thrift fund scheme, group insurance scheme and the special credit plan has also been extended to them. The scheme provides credit facilities to weavers to set up their units with only 10 per cent promoters' contribution and 90 per cent loan component from financial institutions.⁹

It is important to mention here that the J&K Handloom Development Corporation which was incorporated in 1981 with the object of promoting gainful employment to the weaver community in the state, has over the years helped in the growth of

⁸ Ministry of Textiles, from website.

⁹ *Daily Excelsior*, 'Handloom Research and Design Dev. Centres soon: Kamal', 7 February Thursday, 2002.

textiles and handlooms. The Handloom Development Department assists the weavers engaged in handloom sector through implementation of schemes which can be broadly categorized in three groups, viz., state sector schemes, district sector schemes and centrally sponsored schemes. These schemes are mainly aimed at the modernization of handloom sector and assisting the weavers in enhancing their efficiency and productivity through trainings; provision of credit and enhanced market access.¹⁰ As such there is no evaluation method of the J&K Handloom Development Corporation, which should be introduced to enhance the professional capacity of the corporation.

The state government has intensified its effort to revive the world famous Kani shawl known as Kani Jamawar. While on government side, a centrally sponsored Rs.64 lakh project for the development of the Kani shawl has been launched through the J&K Handloom Development Corporation to document some of the old designs of Kani Jamawars prevalent in the 17th and 18th century, the Gul-e-Anaar Handloom Kani shawl Cooperative Society, Kanihama has, in the private sector, also revived about 24 antique designs of Kani Jamawars, since its inception in 1994. The society has been provided financial assistance of Rs. 13 lakh by the Union Ministry of Textiles for this purpose. The central government has also sanctioned a grant of Rs. 10 lakh in favour of the Gul-e-Anaar Cooperative Society for the production of 20 additional designs. The Society has so far produced 36 pieces of Kani Jamawars in various designs, out of which 28 shawls were sold for Rs. 66 lakh in Expo-200 held at Hanover, Germany.¹¹

Handicrafts have a special socio-economic significance in J&K. Keeping in view the vast potential in handicrafts for economic activities like the generation of employment and revenue, the state government has launched various measures to encourage the growth of the handicrafts industry. Against an allocation of a mere Rs.19.50 crore in 1974-75, the budgetary allocation for this sector has been increased to Rs. 24 crore during 1998-99. The production of handicrafts crossed the Rs. 400 crore mark during 1998-99. There has also been notable growth in the state's export in recent years.¹² The government launched several social security schemes for the welfare of artisans and traders related to handicrafts. The department has taken several steps to

10. Handloom Industry, Vision 2020, Kashmir.

11. Imperial Kani Shawl reviving fast: Kamaal, Centre provides Rs.13 lakh assistance for promotion of Jamawar. *Newsline*, Srinagar, 27 July, 2001, The official website of J&K Government.

12. Rather, Tariq A, 'J & K Handicrafts: Ingrained in Socio-Economic Ethos of India', Press Information Bureau, Govt. of India, Features downloaded from <http://pib.nic.in/feature/fe0599/fl205991.html>

facilitate the carpet manufacturers in procuring the raw material at cheaper rates. It has also launched a comprehensive scheme to register the artisans craft-wise. This will enable the department to recommend eligible artisans to banks and other financial institutions for financial assistance. The state government has introduced the sponsored schemes including health insurance, group insurance and work-shed-cum housing schemes. A new Rs.20-crore special credit plan for the financial assistance of the artisans and traders to start self-employment ventures was launched recently. Under this special programme, about 1,000 units benefiting about 6,000 artisans would be provided financial assistance in the form of 90 per cent loan and 10 per cent promoter's contribution. Artisans have been brought within an ambit of the cooperative movement and as many as 873 craft cooperatives engaging over 9000 craftspeople have been launched throughout the state. The cooperatives are being given regular assistance. Craft ware worth over Rs. 90 lakh was produced at these cooperative societies during the cooperative year 1997-98.

Jammu and Kashmir Handicrafts (Sales & Export) Development Corporation Ltd., set up in 1971, has been playing the twin role of providing market cover to the small artisans and petty *karkhanadars*; its emporia have been functioning as exposition windows for the traditional handicrafts of the state.

The existing schemes for the promotion of the handicraft industry by the Ministry of Textiles are as under:

1. Training for upgradation of skill of the existing craft persons and imparting skills to new craftpersons.
2. Design and technological development.
3. Setting up of Craft Development Centres and Common Facility Service Centres in identified craft pockets.
4. Exhibition and publicity.
5. Web-based Geographical Information System (GIS) on handicraft.
6. Setting up of Urban Haat.
7. Financial assistant to Export Promotion Council for Handicrafts (EPCH) and Carpet Export Promotion Council (CEPC).
8. Deputation of Indian Designers/Master craftpersons to reputed training institution abroad.¹³

¹³ PIB Release 'Scheme to Boost Handicraft Industry', <http://pib.nic.in/archieve/lreleng/lyr2001/rjan2001/r29012001.html>

INVESTMENT OPPORTUNITIES IN HANDLOOM AND HANDICRAFT SECTOR

Some of the handloom areas, which offer a vast potential for investments, are:¹⁴

- Wool, the major raw material used by the state handloom industry and the woollen based textile items, with a variety of downstream products.
- Setting up of spinning mills to spin bulk quantity of good quality yarn.
- Setting up of dyeing, calendering and finishing facilities for woollens.
- Manufacturing units of fine quality woollen yarn.
- Developing an array of high-end dress accessories such as pashmina neck ties, scarves, mufflers, etc.
- Manufacturing of fine, lightweight tweed for exports. Inexpensive yet comparable to the best Scottish and Harris tweed, the Kashmir tweed can potentially become a benchmark for excellence.
- Marketing of haute couture items – Kani Jamawar and Pashmina shawls, and accessories can provide tremendous opportunities for marketing companies, trading houses and individual entrepreneurs.

RECOMMENDATIONS

Handloom Sector

A multi-pronged strategy is required to revive the handloom sector, which includes the following:¹⁵

1. Addition of new designs and product diversification needs to be carried out.
2. Productivity of weavers needs to be improved through enhancement of skills, introduction of more efficient looms and other related equipment.
3. Greater market access needs to be provided to the handloom products produced in the state through effective marketing strategy and appropriate incentives.

The National Handloom Development Corporation Ltd. (NHDC), the only national-level organisation in the handloom sector, in its endeavor to provide marketing infrastructure to the State Handloom Organization, has launched a project under

14. Handloom Industry, Vision 2020, Kashmir.

15. Handloom Industry, Vision 2020, Kashmir.

which marketing complexes in some major cities including Delhi, Jaipur, Hyderabad are being set up, where the State Handloom Agencies can acquire showroom premises. This could serve as an effective mechanism for marketing of the state's handloom products.

Handicrafts sector

- The cluster approach of identifying various handicrafts units, of various crafts and crafts person adopted by the previous state government for promotion and sustained development of handicrafts should be strengthened. These clusters should be developed for the purpose of design development, market assistance and production processes.
- The demand of the former Industries and Commerce Minister, Dr. Mustafa Kamal to the Central Silk Board for liberal assistance to re-engineer silk sector including establishment of a cocoon bank as recommended by the Godbole committee 1997 should be renewed. This will help the cocoon produced in J&K to be reeled within the state and yarn produced, used in the weaving sector. This facility would help the state to increase the value addition of cocoons both for yarn and converted fabrics.
- Conduct a feasibility study for setting up of a silk weaving factory in the state.
- Focus should be on brand promotion of the Kashmir handicrafts, product development, assessment and survey of new and existing markets, holding of exhibitions in international markets.
- Explore possibilities to establish modern show-windows at various International Airports across the country to promote handicrafts in a big way.
- The state government should, with the assistance of the Centre set up an Export Development Fund for J&K so that export potential in handicraft and handloom sectors is fully tapped.
- To cater to the working capital needs of small artisans, Artisan Credit Cards can be introduced.
- Interest-free loan to exporters for installation of computers for easier design development and colour combination for exports, duty-free import of silk yarn to promote Kashmir Silk rugs, setting up of modern facilities for spinning of silk and wool yarn in the rates of 50:50, 70:30 and 60:40 to meet the demand of mixed yarn carpets being recent trend in the international market.
- The carpet craft should be declared village and cottage industry as it is a major handicraft sector of the state and main source of foreign exchange.

3. TOURISM

INTRODUCTION

Tourism is one of the world's fastest growing industries at present. In India, although tourism has the distinction of being the third largest export industry after gems, jewellery and readymade garments, its share of the world's tourist traffic is a mere 0.51 per cent. *It is more important in the case of Jammu and Kashmir. Tourism, besides boosting the economy of Jammu and Kashmir, can act as a major force for the conservation of its cultural heritage, and also provide significant opportunities for women and young people and offer educational training and skills development and protect and revitalize traditional arts and crafts.* Looking at its economic returns and comparatively light investments and at the potentialities for tourism and limitations of adequate natural resources in other fields of economic growth, tourism in the state has always been an area of attention and is required to be encouraged further. According to one estimate, 30 per cent of the state's population are directly or indirectly connected with this activity subscribing 16 per cent of the state's domestic product.¹

TOURISM IN JAMMU AND KASHMIR: PRESENT STATUS

Tourism has emerged as an important and one of the major contributors to the state's economy. There are various places of tourist attraction in the state being visited both by foreign and domestic tourists. However, much remains to be done to exploit the tourism potential to the maximum extent. Keeping this in view, the government of Jammu and Kashmir has declared tourism an industry, extending a number of concessions and incentives. The emphasis has been to revive the traditional tourist circuits including tourism marketing by involving local travel trade in direct marketing through the State Tourism Department.

TOURIST ARRIVALS

The boundless beauty, snow-clad mountains, large natural lakes surrounded by thickly populated pine forests with rivers flowing therein have made J&K state a prime tourist attraction place. Till 1989, tourism had been the major economic activity of the state. Tourism activities in the state were concentrated around Kashmir Valley, with few visiting Ladakh and yet fewer interested in Jammu. But due to terrorist activities within the Kashmir valley since 1989, tourist inflow received a major setback. This has affected the economic stability as well as

employment opportunities of its population. The government of Jammu and Kashmir explored the possibilities of its tourism revival and concentrated on Ladakh. Further, religious traffic to Jammu went up from a few thousands to above 4 million in 1996. The change in tourist inflow has been presented in Table IV.15.

Table IV.15
Tourist Arrival in Jammu and Kashmir 1988-2002

Year	Kashmir Valley			Ladakh			Amarnath	Vaishnodevi		
	D	F	T	D	F	T		State	O. St.	T
1988	662097	59938	722035	8608	16256	24864	96055	259891	1732764	1992595
1989	490212	67762	557977	6689	16079	22748	95238	262691	2049310	2312001
1990	6095	4627	10722	396	8342	6738	4824	395202	1774000	2169202
1991	1400	4887	6267	1041	8014	9055	15599	439722	2711588	3151310
1992	1175	9149	10324	2438	13580	16018	54638	445580	3081709	3527289
1993	-	8026	8026	2000	12401	14401	56000	461443	2907302	3368735
1994	500	9314	9814	2080	15369	17449	37000	471101	3234844	3705945
1995	322	8198	8520	5594	12391	17985	60000	549778	3482349	4032127
1996	375	9592	9967	3537	13036	16573	120000	582213	3753319	4335532
1997	7027	9111	16131	3991	12810	16801	79035	495165	3939085	4434233
1998	99636	10247	109883	6792	15238	22030	149920	540453	4081639	4622097
1999	200162	17130	217292	1905	96669	11574	114366	635042	4033298	4668340
2000	104337	7575	111912	6217	11825	18042	173334	-	-	5109575
2001	66732	5859	72591	4260	15439	19699	119037	-	-	5056919
2002*	7993	1015	9008	87	361	448	N.A	-	-	1053771

Note: D – Domestic; F – Foreign; T – Total; O.St – Outside State

* Tourist arrival figures for the year 2002 is up to May for Kashmir Valley, up to April for Ladakh and Vaishno Devi.

Source: Tourism Department J & K.

As Table IV.15 reveals, the potential for domestic tourism has grown substantially during the last few years. The favourable climate, particularly during summer months, has a supplementary impact in increasing the tourist traffic to the valley. With the development of winter sports at Gulmarg and Pahalgam, the number of tourists visiting during the winter season is also increasing considerably.

An important feature of the domestic tourism sector is its contribution to national integration and creation of a harmonious social and cultural environment.

ADVENTURE TOURISM

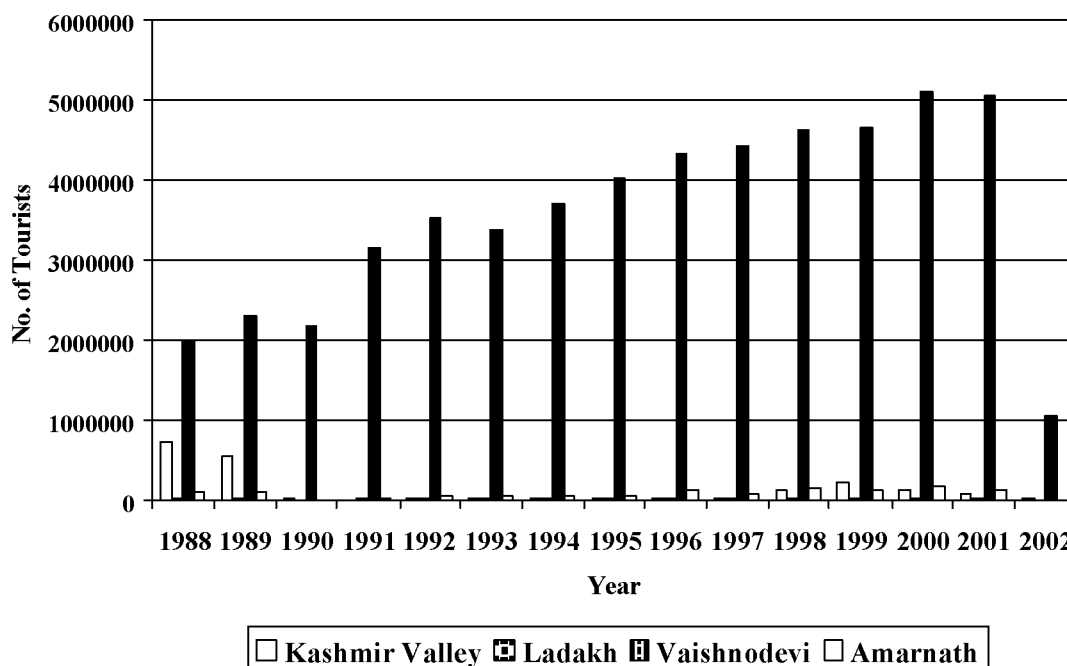
The main thrust since the Ninth Plan is adventure tourism in tourist identified areas in J&K. Adventure tourism offers an excellent option for undertaking a large number of activities such as mountaineering, trekking, skiing, rafting, canoeing, mountain-

1 Jammu & Kashmir, Draft Ninth Five-Year Plan 1997-2002

biking, hag-gliding, para-sailing, heli-skiing, etc. The areas developed for adventure tourism are Sonmarg, Gulmarg, Aru (Pahalgam), Suru valley (Kargil), Stock (Leh), Patnitop, Mansar.

Fig.3

Tourist Inflow in Jammu and Kashmir, 1988-2002



During the Eighth Plan period, J&K Tourism Department was able to acquire good quality equipment of international standard for these activities. However, activity has remained at an introductory level and has not developed to the level commensurate with the scope available in the state.

PILGRIM TOURISM

Pilgrim tourism in the state has also registered considerable improvements during the last few years (Table IV.15). There are a number of pilgrim spots which generate traffic from both within and outside the state. Mata Vaishnodevi shrine in Jammu, famous Sufi Shrines in Kashmir and the Holy Amarnath Cave are important centres of pilgrim tourism. Ladakh has proved to be a very important tourist destination for foreigners because of the centuries-old Buddhist monasteries, which are fully functional and active at present. The J&K Government has taken the initiative to combine pilgrim traffic with leisure tourism. For example, the visitors to the famous

Shrine of Baba Rishi have been going to Gulmarg and using the facility of Gondola Cable Car.

TOURISM INFRASTRUCTURE

This comprises the primary infrastructure which directly serves tourism and is largely oriented towards it, and the secondary infrastructure of social amenities which, besides other things, serves tourism as well.

The primary infrastructure consists of five principal components from which income from tourism is generated, viz;

1. Hotels, providing accommodation to tourists; in case of the valley, houseboats also provide tourist accommodation.
2. Restaurants, providing food and beverages.
3. Tourist transport system, providing facilities for internal sightseeing and long-distance travel.
4. Boutiques, selling goods of interests to tourists other than goods of daily use like toiletries, food articles, etc.
5. Entertainment, leisure and sports facilities.

HOTELS AND RESTAURANTS

Hotels are by far the most impressive and easily noticeable component of any tourism infrastructure. This can be seen from the fact that almost all the incentives for tourism are directed to hotels.

Jammu city offers a variety of accommodation options for visitors, ranging from luxury hotels to humble lodges. Hotels are divided into different categories among which the A category or the western style hotels in Jammu are: Hotel K.C. Residency, Hotel Asia, Hotel Ashok, Hotel Hari Niwas Palace, etc. There are also more than 10 B-category hotels and a number of C-category hotels spread throughout the city. There are 229 unregistered hotels in Jammu. Among them, 33 are purely restaurants, serving different kinds of foods. There are also a few hotel-cum-restaurants in the city. There are also *dharamshalas*, viz., SMV Shrine Board's Vaishnavi Dham near the railway station, Gita Bhawan, Agarwal Dharamshala, Hari Bhawan, and Vinayak Dharamshala.

In Srinagar there are hotels to suit every requirement in terms of price, location and facilities. The most desirable location is the Boulevard, which overlooks the Dal Lake. Dalgate is fairly central for shopping and nearest to the Tourist Reception Centre. It has mostly budget accommodation. Some good hotels are also located in Sonawar and Rajbagh, which are largely residential areas within 2 km from the Tourist Reception Centre. Lal Chowk in the city's centre has several medium category hotels, mostly preferred by visiting traders. The J& K Tourism Development Corporation's hutments at Cheshma Shahi and Pari Mahal are also attractive for those with their own transport.

Many tourists are attracted to Srinagar by the charm of staying on a houseboat, which provides the unique experience of living on the water in a cedar-panelled elegant bedroom, with all the conveniences of a luxury hotel. Srinagar's thousand or so houseboats are moored along sections of the Dal and Nagin Lakes and River Jhelum, each decorated fancifully and named romantically. The state tourism department has classified the houseboats into five categories as follows:

Table IV.16
Tourist Accommodation in Houseboats in Kashmir Valley

Houseboat Category	No. of Houseboats	Dal Lake	Nageen Lake	River Jhelum	Naseem Bagh	Other Locations	Total No. of Rooms
Deluxe	349	264	76	5	4	-	1007
A-Class	129	89	28	10	1	1	310
B-Class	124	85	17	16	-	6	299
C-Class	134	78	9	32	-	15	306
D-Class	351	186	43	79	-	43	772
Total	1087	702	173	142	5	65	2694

Source J&K Tourism Department.

Leh offers a variety of accommodation to suit almost every pocket or preference. Most hotels are family-run establishments and as such, the services are more personalized than professional. Hotels are classified into A, B, C and economy category while guesthouses fall under Upper Medium and Economy class. The guesthouse is a less formal facility offering rooms in a part of a residential house or its annexe, where the guests can share the family kitchen for meals. Apart from low tariff offered for accommodation ranging from very good to merely basic, the guest house system also provides an opportunity for the tourists to see and experience Ladakhi life from the inside. In Leh a dak bungalow guesthouse at a cost of Rs. 80 lakh is under way for providing better infrastructure to the visiting dignitaries.²

2 'Leh to have dak bungalow guest house', *The Kashmir Times*, Friday, 12 July, 2002, p.11

In the newly opened areas of Ladakh – Nubra, Changthang and the Drok-pa area – tourist infrastructure is not yet adequately developed. The state tourism department has started development of accommodation facilities like tourist complexes and hiker's huts at various places in these areas. However, in some of these places, especially in the Nubra valley, tourists can stay as paying guests with some families who have set up paying guesthouses in their homes under a state government-sponsored incentive scheme. Tented camps are also available in the Nubra valley and in Tso-moriri Lake during the summer months.

TOURIST TRANSPORT SYSTEM

The State Road Transport Corporation has been operating a fleet of luxury coaches both for transportation as well as for sight-seeing of various resorts. There are a large number of taxis catering to the upmarket tourists. For local transport, ponies, auto rickshaws, bikes and bicycle are also available. Cycling is an extremely pleasant way of getting around, especially as the valley is fairly flat. But the transport sector, both in the form of coaches as well as taxis does not come up to international standards. There is a lot of scope for development.

SHOPPING AND ENTERTAINMENT

In Jammu, in the crowded streets of Raghunath Bazar, among the age-old dry fruit shops, one suddenly finds designer boutiques that display the very latest in fashion and fashion accessories. The main bazaars, Vir Marg, Raghunath Bazar and Hari Market are famous for Kashmiri handicrafts, traditional Dogra jewellery and various dry fruits, chiefly 'Akhrot' (walnuts). Jammu is also known for the superlative quality of Basmati rice, 'Rajma' (red beans), 'Ampapar' (dried and candied mango peel), 'Anardana', (dried pomegranate seeds) and 'Barfis' (milk sweets).

Apart from shopping, tourists can also visit a number of cinema halls, (Jewel, below Gumat; Indira, Canal road; Swaran, Apsaa, Gandhi Nagar; Hari, Raghunath Bazar; K.C., Shakuntala, B.C. Road; Amba, Janipur; Tiger, Satwari), Clubs (Amar Singh Club, near Bikram Chowk; Jammu Club, near Tawi Bridge) and auditoria (Abhinav Theatre, Canal Road) where cultural programmes and plays are staged. Tourists can also avail the following facilities for entertainment:

1. Swimming: Hotel Asia, Jammu Tawi has a swimming pool which can be used by non-residents on a temporary membership basis. Swimming facilities are also available at Hotel Jammu Ashok and the Sports Stadium, Jammu.
2. Tennis: Jammu Club offers temporary membership for playing tennis.

3. Indoor Sports Complex: This complex at the Maulana Azad Stadium offers facilities for badminton, basketball, volleyball, table tennis and roller skating. Temporary membership is available.
4. Mini-Stadium, Parade Ground: This complex offers facilities for handball, football, hockey and volleyball. Equipment can be hired on the spot.
5. Fishing: River Tawi is famous for a variety of fish like Mahaseer, Catfish, Labio, Mahi, etc. Permits for fishing can be obtained from the Deputy Director, Fisheries Department, Jammu.

In Srinagar, the best things to buy are the handicrafts, carpets, shawls, papier mache used for making vases, bowls, trays and a number of other products all painted by expert craftsmen in lifelike images of kingfishers, chinar leaves and other motifs, baskets, cricket bats, saris, items made from walnut wood, etc. Food products include saffron, walnuts, almonds, shah zira, kashmiri chillies and honey.

For the keen shopper, Kashmir is a handicraft lover's delight. Beauty abounds in Kashmiri artifacts: papier mache, lacquered and painted in floral designs, wood carvings & screens, carpets soft and fine in typical oriental designs, silks, woollen shawls embroidered in traditional paisley and crewelwork of great beauty. Few places in the world offer such a rich variety of skilled craftsmanship as in a place as small as Kashmir.

The bazars of Srinagar are dotted with handicraft stores and shops, almost like an Arabian Night's tale. And the street vendors are everywhere, adding their own colour to this picturesque setting. There is a whole string of government handicraft emporia scattered around Srinagar, but the main one is housed in the fine old British Residency building by the Bund. The flashiest shops are along the Boulevard by Dal Lake. The Bund also has some good interesting shops, including Suffering Moses with high-quality goods. Shikaras patrol Dal Lake, loaded down with goodies. But entertainment in Srinagar has come to a halt as cinemas and theatres are closed due to threats from Islamic militants and very few people are seen on the streets after dark.

Shopping in Ladakh can mainly be done only in Leh. This city has shops catering to all needs. Most of the shops are handicraft shops spread all over Leh. There are a couple of provision stores on Fort Road and some around Old Road.

Entertainment around Leh includes a video show 'Ancient Features' by Ladeg and a cultural show by the Cultural and Traditional Society, behind the Shamshu complex in Port Road, Leh.

Box 3: A Tourist Paradise in the Shadow of the Gun

Yeh chand sa roshan chehra, zulfon ka rang sunehra... .., the song from the film *Kashmir ki Kali* will be recalled by any Hindi film music buff. Few may remember that the song was shot on the Dal Lake, Srinagar. But Ghulam Rasool, a shikara (houseboat) owner on the lake, can never forget it. He saw the shoot when Shammi Kapoor danced and twirled around Sharmila Tagore. That was in the 1960s. Today Rasool, 65, takes his shikara to Dal Lake almost every day but there is no Shammi Kapoor, no Sharmila Tagore, no new film shoots and no tourists.

Tourism and film shooting in Kashmir has collapsed, he says. ‘ There was a time in the 80s when people had to take an appointment with me, but today nobody bothers to visit our paradise’. There used to be a hotel on Char Chinari (a small island in the middle of the lake, now fully manned by Border Security Force personnel) but that was blasted by militants, Rasool says with sadness.

Security personnels are seen guarding everywhere, e.g, the Hazrat bal shrine or the tomb of Sheikh Abdulla.

Not far away at Lal Chowk is a taxi stand. Here Abdul Karim’s future is also as uncertain as Rasool’s. A proud owner of six tourist cars once, he is making ends meet with only one today. He says, ‘there used to be thousands of people wanting to go to Pahalgam, Gulmarg and other tourist destinations from Srinagar, but now hardly anybody comes’.

Banks in the state are also pitching in by offering locals soft loans to start businesses. They have already distributed nearly Rs. 250 million in the last two years. Says Fayaz Ahmed, a houseboat owner, ‘ there are nearly 1200 houseboats in Srinagar, and everyone is losing money. There seems to be no end to our grief ’.

Quoted from Syed Firdaus Ashraf’s article on *A Tourist Paradise in the Shadow of the Gun* from the Internet.

GOVERNMENT INITIATIVE

In order to give a boost to foreign exchange earnings, employment and income generation through tourism activities, the Government of India has in the Ninth Plan granted Export House Status to tourism units. The grant of Export House Status (1998) entitles the tourism units to get all the benefits that are available to recognized export houses.

The Ninth Plan also diversified the tourism product by encouraging rural and village tourism, pilgrim and spiritual tourism, adventure and eco-tourism, indigenous and natural health tourism, heritage tourism and youth and senior citizens' packages.

The main role of the Directorate of Tourism, Jammu and Kashmir the main developmental, promotional and regulatory arm of the J&K Government, Department of Tourism, consists of:

- Overall planning and execution of schemes for the development, upgradation and improvement of the tourism infrastructure in different parts of the state.
- Support to the private sector industry in the form of incentives for setting up various tourist facilities.

The government of Jammu and Kashmir has formulated a special package for the revival of tourism in the valley. It has initiated many schemes for the revival and development of the tourism industry during 1999-2000. Soft loans will be provided for reactivating tourism units in the private sector such as houseboats and outright investment subsidy for setting up popular units at lesser-known areas of the state. Rs.11.47 crore is to be utilized under this scheme to reactivate infrastructure in the Kashmir Valley such as roads at tourist resorts in Gulmarg, Pahalgam and Kokernag. Rs. 50 lakh will be utilized on strengthening communication facilities for installation of computers and on setting up Website and wireless networks. Rupees 4 crore will be spent on improving the water supply at Gulmarg and Pahalgam.

Another tourism-related scheme envisages organizing familiarization tours of officers of the Department, travel agents, journalists and tour operators besides encouraging popular TV channels for shooting their episodes in Kashmir. An amount of Rs. 2.40 crore is being spent under this scheme. Rs. 30 lakh has been earmarked for organising winter games in Gulmarg. Besides, Rs.5 lakh is to be spent on holding a National Artist Camp at Gulmarg. This is a centrally sponsored scheme.³

For its effort to promote travel and tourism in Jammu and Kashmir, the state government was awarded the 'Outlook Traveller – TAAI award for excellence 2001'.⁴

In the future tourism strategy, the role of the state is that of the facilitator/motivator. An outlay of Rs.7205 lakh was proposed for upgradation of basic infrastructure in

3 Rather Tariq A. Tourism Revival in Kashmir, PIB Release, From internet.

4 Official website of J&K Government, 19 September, 2001.

different tourist areas of the state during the Tenth Five-Year Plan and Rs. 1635 lakh during the following Plan year, i.e., 2002-2003. In order to fully exploit modern communication and computerization facilities, an outlay of Rs.200 lakh during the Plan period, and Rs.20 lakh during 2002-2003 was proposed.

REVIVAL OF TOURISM

Revival of tourism presupposes reactivation of tourist infrastructure, which has remained idle for the past 10 years, and has started disintegrating due to disuse and lack of maintenance. Most of the tourist units in the valley require renovation and refurbishment. The state government has already framed a package for the revival of tourist infrastructure, the broad components of which are:

- (a) Grant of relief inclusive of interest subsidy on loans to the entrepreneurs connected with tourist trade who have suffered losses and are not in position to pay dues to the financial institutions with effect from 1.1.1990
- (b) Payment of interest subsidy on the institutional financing in the private sector.
- (c) Soft loans to the private sector for reconstruction/renovation.
- (d) Provision for reconstruction, replacement of gutted, damaged properties of tourism department, JKTDC, etc.

Organising festivals for promotion and revival of tourism is underway, e.g., the Ladakh festival, Baisakhi Festival to ensure a large number of Indian and foreign tourists in such events.

FUTURE POTENTIAL OF TOURISM IN THE STATE

The three distinct regions of the state offer tremendous potential that has not yet been fully tapped.

Jammu, nestled against the backdrop of the snowcapped Pir Panjal Mountains is a transition between the Himalayan range in the north and the dusty plains of Punjab in south. Between these two extremities lies a series of picturesque scrub-covered hills, forested mountain range and river valleys. The Shivalik hills cut across the area from the East to the West while the rivers Ravi, Tawi, and Chenab flow through the region.

The tourism department is seeking to exploit the potential of Jammu as a tourist destination on its own and not just a transit point en route to Kashmir or on a

pilgrimage to the Vaishno Devi temple. With this intention, it organised a three-day festival (13-15 April, 2001) 'Jashn-e-Jammu', in collaboration with various trade, religious and social organisations. The festival concluded with cultural activities at Baghe-Bahu fort, where a photo exhibition had also been organised to focus on the rich cultural heritage of Jammu. The event received a good response from a large number of people, including tourists and pilgrims. The festival, the first of its kind in the state, depicted the glorious history of Jammu, and its tourist potential.⁵

Then comes Kashmir, the paradise on earth. Kashmir is a multifaceted diamond, changing its hues with the seasons always extravagantly beautiful. Two major Himalayan ranges, the Great Himalayan range and the Pir Panjal, surround the landscape from the north and south respectively. Kashmir is rich in green gold, charming vales, dales, meadows, fascinating waterfalls, streams, and springs which appeal to people the world over. Snowy landscapes, vast lakes, scenic islands, historical monuments, orchards and health resorts have a vast scope to carry out all kinds of adventurous activities offer an unparalleled potential to attract tourism as no part of the globe can.

Kashmir's winter tourism potential can be fully harnessed if the technological expertise in avalanche triggering available with the Snow and Avalanche Study Establishment (SASE), (a Defence Research and Development Organisation (DRDO), laboratory located at Manali) is made use of by the Jammu and Kashmir government. The scientific approach adopted by the SASE to control and render avalanche-prone areas safe, could result in the Gulmarg-Khilanmarg slopes being developed into the world's best and most popular ski slopes for heli-skiing.⁶

Last comes Ladakh, the land beyond the Himalayas abounding in awesome physical features. Bound by the two mightiest mountain ranges, Karakoram in the north and Great Himalayas in the south, it is traversed by two other parallel chains, the Ladakh range and the Zaskar range. The highest mountain peaks, most difficult rock faces, huge glaciers, challenging mountain rivers have all remained largely unexploited. In fact, this is the largest untapped resource for development of adventure tourism anywhere in the world. Apart from the sweet-water lakes of Dal, Nagin and Wular in the valley, there are a large number of high altitude mountain lakes such as Gangabal, Krishansar Vishansar, Tarsar, Marsar and Kounsar Nag. The lakes in Ladakh though saline are huge, e.g., the Pangong Lake which is 150 km long.

5 Sharma, Naveen, Private Entrepreneurs offered sops to aid tourism in Jammu, Express Travel & Tourism, Issue Dated 16-31 May 2001. From internet.

6 SASE expertise can boost J&K tourism, *The Tribune*, Monday, 22 February, 1999.

Apart from the main Kashmir valley, the valleys of Wardwan, Gurez and Tilel remain to be exploited for tourist activity. There are meadows many times bigger than the famous Gulmarg which are yet to be reached, e.g., Bungus valley in Lolab. Among the rivers, Zanskar, Suru and Chenab have extensive potential for rafting, kayaking and other white water sports. The snow conditions and weather in the Pir Panjal range which presently have only one ski resort of Gulmarg have the potential of locating more than a dozen ski resorts.

The other important aspect of tourism potential is the existence of shrines, monasteries, temples and cave temples in the three regions. The shrines of Kashmir are a tribute to the Sufi and mystic school of Islam for which the valley is famous throughout the world. The monasteries in Ladakh are living temples of Buddhism in their original environment and have remained unchanged for centuries. The temples and the cave shrines in Jammu such as the Mata Vaishno Devi attract more than 5 million pilgrims every year.

Though tourism comes after agriculture, horticulture and handicrafts, its tremendous potential and the natural resources of the state can make it the main industry of the state.

INVESTMENT OPPORTUNITIES IN THE TOURISM SECTOR

Keeping in view the potential and expected growth of tourism, Jammu and Kashmir would require and welcome investments in the following areas:⁷

1. *Upgradation/improvement of airport facilities and setting up of feeder air services:* Investment in an International Airport in Srinagar would be advisable as most of the people flying from Europe to the Far East and Australia would gladly take a stopover in Kashmir and such an increase in tourist flow would give sufficient returns for any investment in this area. In addition, there are a number of virgin tourist areas which could be exploited fully, only if accessibility is improved by starting feeder air services with small aircraft or even helicopters. These areas include Wardwan Valley in Kishtwar, Zanskar Valley, Gurez, Telel, Bungas and some areas in Ladakh such as Nubra valley, Pangong/Tsomoriri Lakes, etc. These air services would not only throw open these areas to domestic and international tourists, also provide a link to the local population which remains cut-off during winters.

⁷ Kashmir Vision 2020, Investment Opportunities for Tourism, J& K Tourism.

2. Local Transport

The services of local transport at present do not come up to the international standard. Hence there is ample scope for investment in luxury sightseeing coaches, air-conditioned cars and mini buses of international level.

3. Hotel Accommodation

All major tourist destinations in the world have international standard hotel chains whose facilities, norms and standards are uniform throughout the world. Setting up of international chains such as Hilton, Holiday Inn, Meridien, Radisson, Hyatt and so on will add prestige to the destination. There are possibilities of the taking over of some existing properties for upgradation or even for setting up independent units in different tourist areas of the state by outside investors.

4. Recreational Facilities

The state lacks such facilities as amusement parks, health clubs, indoor skating rinks, bowling alleys, casinos and so on. Therefore investment for setting up of international standard facilities for recreation in different parts of the state is welcome.

5. Golf Tourism

Golf-Tourism has gained importance in recent times. In Srinagar there is the well-known Royal Springs Golf Course, one of the best in Asia. Investments can be made for setting up similar golf courses in other parts of the valley such as in Gulmarg, Pahalgam, Sonmarg and so on. This would develop a golf circuit in the valley for specialized tours.

6. Ropeways

The experience of setting up of the Gondola in Gulmarg has shown that it is a very viable proposition as a tourist attraction. There are immense possibilities of setting up of such Gondolas/Cable Cars and other Ropeway systems in different tourist areas. Investment in this sector would be very welcome and the investors would also be eager, this being a good commercial proposition. Investments are sought for Gondolas/Cable Cars at Pahalgam, Sonmarg, Patnitop and Bagh-e-Bahu-Mahamaya in Jammu. Some of these ropeways would not only be a tourist attraction but would open up areas for tourists who are interested in Winter Sports, as has been the case in Gulmarg. In fact, the installation of rope ways opens up new tourist areas in a more sustainable way as construction of roads into these areas usually causes damage to the ecology due to accelerated exploitation of the area.

7. Turnkey Development of Resorts

There are totally virgin areas in Kashmir where no tourism activity has taken place at present or the activities are at a low level. It would be worthwhile to invite

investment for total development of these resorts on a turnkey basis. In this regard the resorts of Bungas, Aharbal circuit, Yousmarg, Sanasar, Mantalai, Wardwan, Gurez and Teel valleys could be given out on a turnkey basis for development to international/national resort development agencies. Investments are invited for turnkey development of resorts with the stipulation that employment would be in the ratio of 80 per cent local and 20 per cent from outside. The aim is not only to develop totally new resorts but also to generate sufficient employment in these remote areas for the local population.

INCENTIVES

The following package of incentives has been sanctioned to boost the industry.

- (i) The state government will grant 30 per cent capital outright investment subsidy on the fixed assets including cost of land for new tourism units. This subsidy will also be available for expansion of the existing units but will be restricted to investments made for the extension of existing units only.
- (ii) If a new unit invests Rs. 25.00 crore or more in fixed assets including the cost of land in any area of the state, it will be treated as a prestigious unit; a capital outright investment subsidy of Rs. 60.00 lakh would be given to it at the time of commissioning.
- (iii) The following items shall qualify for capital outright investment subsidy:-
 - (a) Cost of land and its development
 - (b) Civil Works including sanitary fitting plumbing and internal electrification
 - (c) Modern kitchen equipment and refrigeration units
 - (d) Sewage disposal system
 - (e) Air conditioning and central heating units
 - (f) Geysers and boilers.
- (iv) Any unit which avails of the incentives under Capital out-right investment subsidy shall be debarred from selling/leasing the property or the unit for a period of 5 years from the date of commissioning. In case of default the Capital outright Investment Subsidy shall be recoverable as arrears of land revenue.
- (v) In the case of an existing hotel-unit which wishes to expand its capacity, the unit shall be bound to increase its capacity by at least 1/3rd of its existing bed strength. The expanded capacity should conform at least to the existing standard of the hotel. The subsidy under the expansion scheme shall be

granted only on the basis of the project report prepared by reputed consultants and approved in writing by the Director of Tourism.

- (vi) In order to estimate the cost of the civil works including electrification, etc. to determine the quantum of capital outright investment subsidy due to a unit, the following would be the prescribed authorities for recording the necessary certificates.

(a)	Civil works up to the value of Rs. 20.00 lakh	The Executive Engineer of the concerned Public Works (R&B) Division
(b)	Civil works above the value of Rs. 20.00 lakh up to 50.00 lakh	The Superintending Engineer, PWD (R&B) of the concerned Division.
(c)	Civil works above the value of Rs. 50.00 lakh	Chief Engineer, PWD (R&B) of the area concerned.

- (vii) In the case of Leh and Kargil Districts, the Superintending Engineer, PWD (R&B) who enjoys the powers of Chief Engineer will be the prescribed authority for recording the certificate.
- (viii) As far as assessment of the value of land is concerned, the District Collector of the concerned district will certify the value of the land.
- (ix) The tourism projects, which propose to avail of the incentives under the present rules, shall route their cases to the Director Tourism through the concerned officer of the Tourism Department of the area.
- (x) All incentives in the form of subsidy that will be sanctioned under the prevailing rules shall be disbursed among the unit holders after the commissioning of the project.

CHALLENGES AND OPPORTUNITIES

Tourism, once a mainstay, is now dead. The challenges faced by this sector are many as the continuous militant activities have led to the decline of tourism industry in the state of Jammu and Kashmir. In order to fight the militant activities, the army and police have been taking several measures. For instance, police routinely stop and search passengers of overcrowded buses. Armed security forces line the roads with sand bagged bunkers at strategic points. Heavy military vehicles are on constant patrol. In such a suspicious climate it is natural that the tourist flows have declined. The economy therefore has collapsed. The houseboat-hotels for tourists on Dal Lake are floating high on water, empty of guests. Shopkeepers, carpet-sellers, farmers, hoteliers and traders report that business is off by as much as two-thirds from a year ago (i.e. 2001).

Though the tourism sector has immense backward and forward linkages in terms of both income and employment and can contribute significantly to the economy, haphazard and uncontrolled growth can destroy the very base on which tourism is built and poor planning cause considerable damage. Already ten years of armed militancy in Kashmir is destroying its forests, lakes and wildlife. Endangered wildlife is freely poached and human habitation is destroying the area's ecosystem, leaving its fate hanging in the balance environmentally as well as politically.

Tourism should therefore be based on perspective plans prepared with appropriate technical and professional assistance. The plans or projects must include:

- environmental impact studies,
- carrying-capacity studies,
- instruments of spatial and land use planning,
- instruments of architectural controls,
- strategy for preparing the local community to safeguard its cultural identity, and
- awareness programmes for local participation and local commitment to the project

RECOMMENDATIONS

Connectivity or easy access is an essential requirement for development of tourism in any region. Many a picturesque and exquisite sport in the state suffers from lack of connectivity. First let us take up air connectivity as in the twenty-first century. For time-starved tourists, air transport is going to be the most preferred mode of transport. There is a long-standing demand for making Srinagar an international airport. This demand needs to be considered seriously and Srinagar airport should not only be declared as an international airport, but made a charter destination.

If Lhasa in Tibet can be developed into a charter destination there is no reason why Leh (capital of Ladakh region) cannot be made one too. If some expansion or modification in the runway is required, it should be undertaken. Kargil airport was developed a few years ago but it has still not been commissioned. The earlier Kargil airport becomes operational, the better it is for promotion of tourism to the Suru valley, Drass area and Zaskar. Further, Poonch, Kishtwar (Doda district) and Rejouri need to be brought on the air map of the state. This is the only way to improve their connectivity. While Nubra valley and Changthang area in Ladakh

have been thrown open to tourists, there is very little infrastructure available in these areas. It would be an outrage to put up concrete and cement structures in these areas of pristine purity and unparalleled beauty. Wooden structures, designed in traditional Ladakh architecture could be the answer. Further the local residents need to be encouraged to create a paying-guest or house-guest accommodation as many a tourist would love to stay in local houses and experience the Ladakhi way of life for themselves.

The work on the construction of the railway line connecting Jammu with the Valley has been proceeding at a snail's pace and at this rate it will be decades before the railway line goes up to the valley. It is essential that this important link is accomplished within a definite time frame as the commissioning of this line will throw up a whole host of economic opportunities and make access to the valley easy and smooth. This project therefore deserves to be given top priority.

There is need to upgrade and refurbish the Patnitop complex. With Gulmarg being virtually out of bounds because of militancy, a lot of tourists from neighbouring states visit Patnitop. The maintenance of the complex and the standards of service, however, leave a lot to be desired. A small percentage of pilgrims visiting Vaishno Devi Shrine also visit Patnitop. A sustained publicity and promotion campaign can attract a larger number of visitors to Patnitop. If need be, the management of the complex could be handed over to some private, professional hotel chain or group.

The people of Jammu and Kashmir are handsome, smart and hardworking. The tourism industry can be a major source of employment for them. What is needed is the imparting of specialized skills and state-of-the-art technical education. There is a Hotel Management Institute in the state being run under government auspices. The state can easily do with two such institutes with international affiliations (preferably with some hotel management institute of France or Switzerland). These institutes should be set up in the private sector but the government should act as a facilitator.

The state of Jammu & Kashmir is a natural and inevitable destination for tourists. Its unique beauty, the fabled gardens, the shimmering lakes the snow peaks, the flowing rivulets, the majestic Chinars, the tall Deodars, the rolling valleys, the fascinating trekking trails and innumerable adventure possibilities – all these beckon the tourists. What has been missing for sometime is peace and security. And these two factors are the pre-requisites for development and growth of tourism in the state.

4. INFORMATION TECHNOLOGY

INTRODUCTION

Information Technology (IT) has emerged as an important sector in transforming the socio-economic lives of the people. IT can be used as a major instrument to provide new opportunities for income generation and employment to those sections that have been marginalized for long due to lack of opportunities. India, during the past decade, has experienced a high growth in Information Technology industry. Exports of Software as well as IT enabled services increased from Rs. 17150 crore in 1999-00 to Rs. 36,500 crore in 2001-02 and is expected to increase to Rs. 47,500 crore in 2002-03.*

Though IT industry is not well developed in the state, it has great potential for contributing to the expanding market. The state has a large strength of qualified and skilled personnel so essential to the development of the IT industry. The state offers a highly conducive environment for setting up the industry. On the other hand IT can also contribute in eliminating various problems ailing the state economy, like educated unemployment, weak industrial base, poor accessibility, small market, etc. Given the importance of IT in the development of the state, the government has taken certain initiatives to develop this industry.

GOVERNMENT INITIATIVE

The state government in 1996 categorized IT as one of the thrust areas in the industrial policy of the state. To give boost to this industry, an Electronic Industrial Estate has been set up at Rajbagh in Srinagar. The government has also set up a Software Technology Park (STP) at Rangreth, the first phase of which was commissioned in March 2001. The government has announced various incentives under its industrial policy to encourage investors to set up units in the Technology Park. The STP offers facilities like:

- High-speed data communication
- Microwave linkages to units located outside the complex to integrate them with International gateway through Local Area Network (LAN)
- Flexible Band width as per customer needs

* Kashmir Vision 2020, Conference on Investment Opportunities in J&K, Srinagar, June 2002.

- Central computing/conferencing facilities to member units
- Uninterrupted power supply, etc.

To increase efficiency, responsiveness and transparency in the day-to-day functioning of the government, stress has been laid on introducing increased use of information technology. The finance department has been the special focus area for e-governance besides Health & Medical Education, Power Development Works, Rural Development and Food & Supplies departments.

The government has also set up an Information Technology Unit under the direct control of Chief Minister's Office for building formalized systems for information flow. A high-level committee, headed by the Chief Secretary has also been set up for regular monitoring of the progress on the implementation of IT in government departments. The government has taken steps to set up Community Information Centres at the block level to provide information to the people regarding government activities. The government has also taken initiative to provide information on the status of development schemes at the district level.

CHALLENGES AND OPPORTUNITIES

Challenges

1. Development of IT requires an uninterrupted power supply. Ensuring regular power supply is one of the challenges facing the state.
2. Poor road connectivity inhibits the rural population from taking benefits of using IT.
3. Low awareness among the masses about the application of IT.

Opportunities

1. The geo climatic conditions of the state offer an ideal location for setting up IT industry.
2. IT being a knowledge-based industry, a large pool of educated and skilled youth in the state can provide the required manpower for developing the IT industry.
3. Government initiatives and the new industrial policy, which provides the favourable environment for increased investment in IT industry.

RECOMMENDATIONS

1. Though the state has plenty of talent, it needs to be groomed. For this the state government should establish a university on the lines of Indian Institute of Information Technology (IIIT) as established in other parts of the country.
2. To encourage local youth to set up their own units, J&K Bank, SIDCO etc. should provide soft loans.
3. Poor infrastructure has so far kept investors away from investing in the state. The government should take steps to improve the infrastructure and ensure uninterrupted power to the IT units.
4. To promote J&K as the premier location for world-class companies, the state government will need to act on two fronts. First, it must provide companies and professionals with infrastructure and living conditions comparable to any other location in the world. IT professionals are highly valued globally and have their pick of jobs & facilities. They will choose to move to J&K only if working and living conditions are comparable to other countries of the world. Second, the state should develop and implement a compelling promotional programme to attract IT companies in the state.
5. Since IT industry is a knowledge-based industry, government should try to attract those professionals who have left the state/ country for training and are willing to come back.
6. Non-Resident Indians (NRIs) can be another group of potential investors, whom government should try to attract. To do this the government can open a website giving information about the investment opportunities in the state, tax concessions & various incentives offered, potential markets, etc.
7. Online banking, e-commerce, e-governance, etc., are new areas where IT can be used to the benefit of the economy.
8. National as well as international marketing of tourism.
9. Promote handloom and handicrafts through increased use of IT in designing, advertising and marketing.
10. Since IT does not require a big set-up and is a small office/ home office type industry, there is vast scope of employment of women in this industry.

5. BIOTECHNOLOGY

INTRODUCTION

The ecological environment of Jammu and Kashmir is fragile and therefore not conducive for large-scale industrial development in the conventional sense. The agriculture sector, on the other hand, continues to be important sector in the state economy as large sections of the population depend on it for employment as well as consumption. However, agriculture is still a subsistence sector, with the state purchasing large quantities from outside sources to meet its requirement for food grains. Decline in the availability of arable land to the agricultural population per capita, decreasing from 0.30 hectare in 1961 to less than 0.13 hectare now due to increased urbanization and population limits constraints on the production. Use of large-scale capital-intensive technologies also loses much relevance due to little area expansion possibilities. At the same time, highly intensive agricultural practices are feared to produce adverse environmental consequences. Biotechnology offers a wide range of technologies and products that can enhance both productivity as well as the quality of agricultural produce in a more eco-friendly manner. With better understanding of the biological processes and ability to manipulate genes of living organisms, it has been possible to modify products or improve them for the benefit of the humankind.

In this scenario, to raise the yield of food crops to keep up with the ever-increasing population, to shift agriculture from high-input low-productivity to sustainable agriculture, to reduce environmental pollution due to intensive farming, biotechnology has far-reaching benefits.

RATIONALE

Although the state is rich in natural resources such as fruits, medicinal and aromatic plants, forest produce, ornamental plants, livestock, etc., the richness and diversity of the region has not been tapped fully. The development, maintenance, productivity and exploitation of this diversity is an urgent need of the region. On the other hand, unabated and unscientific methods of extraction of this diversity have disturbed the eco system of the region. The application of biotechnological innovations like tissue culture for crop improvement; use of bio fertilizers as an answer to small farmers in cutting down their cost of fertilizer use and shift in international demand from fruits and cereals grown by using chemical fertilizers to those grown by using bio

fertilizers; as a remedial measure to restore the eco system and make this bio diversity productive and exploitable for economic gains of the region could prove a boon for the state.

CHALLENGES AND OPPORTUNITIES

Challenges

The state of Jammu and Kashmir is divided into three geo-climatic zones, viz., subtropical, temperate and cold arid zone. Each zone has its specific needs. Most of the research in biotechnology has taken place in the temperate zones of the country. Technical innovations can't simply be borrowed from other states. There is a need to develop indigenous technology for productivity enhancement and developing new varieties of crops, keeping in mind the local conditions and demands.

The only source of funding available for research in biotechnology is government funding. There is a need for more private companies to come forward and invest in R & D in the state.

Another important challenge for the development of biotechnology is the linkages between the research institutes and the cultivator. This gap becomes a hurdle in the commercialization of biotechnological research.

Opportunities

The climate of the state is ideally suited for research and development in the field of biotechnology. Some infrastructure is already available for carrying out R&D, e.g., the Agriculture University of Jammu and Kashmir, Regional Research Laboratory, Jammu and the Field Research Laboratory, Leh.

Biotechnology is a knowledge-based approach, which offers unique solutions to the problems. Trained manpower is required for the development of the biotechnology industry. The state has sufficiently large manpower in this area. The Agriculture University of Jammu and Kashmir has a separate division for biotechnology. In addition to M.Phil and Ph.D scholars, a fairly good number of post-graduates pass out each year.

The state has a huge reserve of resources like minor forest produce, ornamental plants, and medicinal and aromatic plants. More than 50 per cent plant species used in British pharmacopocia are reported to grow in Jammu and Kashmir.

RECOMMENDATIONS

Given the increasing tendency of farm labour moving to non-farm activities, the development of biotechnology to improve farm productivity and boost employment in the state gains more relevance.

The following are potential areas where bio-technological approaches can play a significant role:

- Since bio-technology has a vital role in plant propagation, improvement and protection, any initiative in this area will reduce the dependence on time consuming conventional breeding and plant protection methods. Adoption of new techniques may not be possible at present due to lack of sophisticated infrastructure required. State government should take certain initiatives to build the infrastructure for biotechnology research.
- The climate of the state is ideally suited for horticulture and vegetable cultivation. But the output is far less than neighbouring states. The government should encourage private research initiatives in hybridization, micro-propagation, tissue culture and other biotechnological applications in horticulture to introduce plants which have a short gestation period.
- The demand of medicinal plants has seen a significant growth all over the world because of popularity of alternative systems of medicine. Both the Regional Research Laboratory, Jammu and Field Research Laboratory, Leh have done some commendable work on medicinal plants. In view of the exponential growth in demand for medicinal plants, private capital and enterprise need to be attracted in this sector. The state government needs to formulate a special package to attract investment in the sector. The financial incentive in such a package should be related to the employment potential of the units.
- Jammu and Kashmir provides a favourable climate for cattle breeding. In other parts of the country one has to create an artificial climate for cattle breeding and the success rate is low. The state government should emphasize the use of biotechnology to introduce new and improved breeds.
- Another important area for the use of biotechnology is seed production. Ladakh region of the state provides excellent soil and climate for the seed production. The state government should encourage experiments in this area.
- To encourage investments, the government can develop a Biotechnology Park where it can provide basic infrastructure along with various incentives to the private investors.

- Unavailability of fodder, in winters, is one of the major problems in Ladakh and Kashmir regions. Through biotechnological methods, low-cost, high-nutrition fodder can be developed. Agriculture University, Kashmir has done some research in this area, which needs to be commercialized. Further, the possibility of availing fruits of research carried out by various Europe-based institutes on high-yielding, nutritious fodder should be explored.

There is a need for concerted effort to promote the use of biotechnology in the state. The state government's role should be to underwrite investments by the private sector and provide infrastructure. The research institute/ academia should develop technology, transfer it to the users, train and advice them. The private /commercial sector should implement the technology developed on a large scale thereby creating jobs.

CHAPTER V

State Finances

Jammu and Kashmir is one of the ten special category states of the country. The state has not been able to generate sufficient revenue from its own resources and has been facing serious financial problems. The problem became all the more serious due to the prevailing circumstances in the state affecting both revenue and expenditure. The state suffered from militancy for a long period, since 1989 onwards, resulting in the erosion of the tax base, increase in expenditure, destruction of infrastructure and various other factors related with disturbed law and order. The state income did not grow and it became difficult to collect user charges and sales tax revenue. It also went into arrears. Because of continued tax and non-tax revenue shortfalls and heavy pressures on expenditure, the deficit has been increasing significantly. The account of the state government for 2000-01 closed with a revenue deficit of Rs.961 crore showing an increase of 77 per cent over the deficit in the previous year. The fiscal deficit increased from Rs. 1338 crore in the year 1999-00 to Rs.1873 crore in 2000-01, registering an increase of 40 per cent.

The development process in the state has largely suffered due to inadequacy of resources and steep rise in the expenditure during the years of turmoil. The state's inability to generate sufficient financial resources has resulted in the increased dependence on central assistance and borrowings. In 2000-01 the state governments' revenue from its own resources (tax and non-tax) constituted only 21 percent of the total revenue receipts of Rs. 5,660 crore while as grant-in-aid from the central government constituted 67 per cent and the state's share of union taxes and duties constituted 12 percent. While the debt requirements of the state have been growing very fast, the mounting debt servicing burden has been reducing the availability of resources for investment in developmental projects and other services. The interest payment during 2000-01 amounted to Rs. 769 crore constituting 12 per cent of revenue expenditure.

The state government has always been looking out for new ways of augmenting its revenue income. However, the requirement of development and other expenditure has been so enormous that it has been increasingly difficult to contain the deficit or the debt. The total expenditure (revenue and capital) increased from Rs. 4180 crore in 1996-97 to Rs.7547 crore in 2000-01 showing an increase of 80.50 per cent. The problem of large and persistent revenue and fiscal deficits is serious. In fact, the

increasing fiscal deficit of the state government over the years and the adverse financial indicators point to improper fiscal management. While the state government needs enough resources for discharging its legitimate functions effectively, the finances of the state have been under considerable stress particularly during the last few years.

Therefore, it is imperative to bring efficiency in the management of state finances and make constant efforts towards mobilization of additional resources. Effective measures and long-term strategic perspectives are required for sound and efficient management of state finances. Keeping this in view, the chapter examines the existing position of state finances and suggests effective measures for curtailment of state expenditure, mobilization of additional resources and for improving financial management practices of the state.

RECEIPTS AND EXPENDITURES OF THE STATE

The state government has four sources of revenue, namely, tax revenue, non-tax revenue, grants-in-aid from Government of India and state's share of union taxes and duties. The tax revenue plays a vital role in the budgeting exercise of the state. Under tax revenue the prominent sources in order of higher revenue collections include sales tax, excise, tax on goods, tax on vehicles, stamp duty, electricity duty, tax on passengers and land revenue. Besides, miscellaneous taxes in the shape of tax on professions, trade, selling and employment, entertainment duty and advertisement, road tax and tourist tax are charged. The non-tax revenue is largely dependent on collection of fee from the consumers on account of supply of goods and services like electric energy, drinking water, irrigation facilities, exploitation of forest wealth, charges of health services, mining, etc. The grant-in-aid from the central government and the state's share of union taxes and duties are the other main sources of income of the state. The status of revenue receipts of the state for the past five years is reflected in Table V.1

Table V.1
Total Receipts of the State

(Rs.in Crore)

Receipts	1996-97	1997-98	1998-99	1999-00	2000-01	Percentage change from 1996-97 to 2000-01
Revenue Receipts	3223	4642	4509	5514	5660	+ (76)
Tax revenue	294 (9.11)	368 (7.92)	437 (9.68)	578 (10.47)	746 (13.14)	+(153)
Non-tax Revenue	183 (5.67)	248 (5.33)	283 (6.27)	405 (7.33)	444 (7.82)	+(143)
State share of union taxes and duties	626 (19.40)	834 (17.95)	1212 (26.85)	1232 (22.32)	675 (11.89)	+(8)
Grants-in-aid from government of India	2120 (65.71)	3192 (68.70)	2577 (57.10)	3299 (59.77)	3795 (66.88)	+(79)
Recovery of loans and advances	3 (0.09)	4 (0.08)	4 (0.08)	5 (0.09)	14 (0.24)	
Total	3226	4646	4513	5519	5674	+(76)

Source: Compiled from the report of Comptroller & Auditor General of India, 2001.

() = % of total, + = increase, - = decrease

Table V.1 reveals that the total receipts of the state have increased from Rs. 3,226 crore in 1996-97 to Rs. 5,674 crore in 2000-01, indicating thereby an increase of 76 per cent. The share of tax revenue was 9.1 per cent in 1996-97 but has steadily increased over the past years and was 13.2 per cent in 2000-01. It reveals that there is enough scope for tax revenue being the major revenue contributor in future as well. The net increase in tax revenue has been to the tune of 153 per cent during the years 1996-97 to 2000-01. As regards non-tax revenue the share has increased from 5.7 per cent in 1996-97 to 7.8 per cent in 2000-01. Though the increase is steady, but not to the level of increase of tax revenue share. The amount of non-tax revenue has increased from 183 crore in 1996-97 to Rs. 444 crore in 2000-01, registering thereby an increase of 143 per cent.

The state's share of union taxes and duties has been fluctuating over the past years. The absolute revenue under this head has increased from Rs. 626 crore in 1996-97 to Rs. 675 crore in 2000-01 showing an increase of 8 per cent. However, the state's share of union taxes and duties decreased from Rs. 1232 crore in the year 1999-00 to Rs. 675 crore in the year 2000-01, reflecting a decrease of 45.21 per cent. This calls for an in depth investigation in collection and distribution procedures. Grant-in-aid from government of India has increased from Rs. 2120 crore in 1996-97 to Rs. 3795 crore in 2000-01, showing thereby an increase of 79 per cent over these five years. Grant-in-aid forms almost two third of total receipt in the past five years except for the years 1998-99 and 1999-00 where it was less than 60 per cent. The

share of recovery of 'loans and advances' has been just less than 0.3 per cent over the last five years, though in absolute terms the amount had increased from Rs. 3 crore in 1996-97 to Rs. 14 crore in 2000-01. Thus the state has not been able to generate enough revenue at its own level and has been mostly depending on the grant-in-aid from the central government which contributes about 70 per cent of the total receipts of the state.

For discharging its Constitutional obligations and for carrying out its legitimate functions, the state government spends money on various activities ranging from maintenance of law and order and regulatory functions to various developmental activities/programmes. The government expenditure is broadly classified into Plan/non-Plan and revenue/capital. The plan and capital expenditures are meant for asset creation that eventually help to generate revenue stream directly or indirectly whereas the non-plan and revenue expenditures are associated with expenditure on establishment, maintenance and services. The total expenditure of the state for the past five years is reflected in the Table V.2.

Table-V.2
Total Expenditure of the State

(Rs. in crore)

Expenditure	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	Percentage increase/decrease (base year 1996-97)
Revenue Expenditure:	3129	4191	4909	6055	6621	+ 111.60
Plan	348 (8.32)	445 (8.64)	526 (9.44)	704 (10.26)	735 (9.73)	+(111.20)
Non-Plan	2781 (66.53)	3746 (72.78)	4383 (78.73)	5351 (78.03)	5886 (77.99)	+(111.65)
Capital Expenditure:	1000	889	596	711	867	-(13.30)
Plan	924 (22.10)	908 (17.64)	608 (10.92)	791 (11.53)	802 (10.62)	-(13.20)
Non-Plan	76 (1.81)	-19 (0.36)	-12 (0.21)	-80 (1.16)	65 (0.86)	-(14.47)
Disbursement of loans and advances	51 (1.22)	67 (1.30)	62 (1.11)	91 (1.32)	59 (0.78)	+ (15.68)
Total	4180	5147	5567	6857	7547	+ (80.50)

Source: Compiled from the Report of Comptroller & Auditor General of India, 2001.

() = percentage of total + = Increase - = Decrease

Table V.2 depicts that the total expenditure of the state has increased from Rs.4180 crore in 1996-97 to Rs. 7547 crore in 2000-01, thereby showing an increase of 80.5 per cent. The revenue expenditure has increased from Rs. 3129 crore in the 1996-

97 to Rs. 6621 crore in the 2000-01 constituting an increase of 111.60 per cent. The results reflect that the government had made no efforts to arrest the increasing trend in the revenue expenditure, which had increased from 75 per cent of the total expenditure in 1996-97 to 88 per cent in 1998-99 and remained constant thereafter. As against this, the capital expenditure has registered a decreasing trend, from Rs. 1000 crore in the year 1996-97 to Rs. 867 crore in 2000-01, amounting to a percentage decrease of 13.3 per cent. This indicates that the state has given less emphasis on investments and growth-oriented developmental expenditure. The disbursement of loans and advances has increased marginally from Rs.51 crore in the year 1996-97 to Rs. 59 crore in the year 2000-01, recording an increase of 15.67 per cent.

Table-V.3
Break-up of the Expenditure

(Rs. in crore)

Expenditure	1996-97	1997-98	1998-99	1999-00	2000-01	Percentage increase/ decrease base year 96-97
Revenue Expenditure	3129	4191	4909	6055	6621	+(111.60)
General Services (Including interest payment)	994 (23.77)	1717 (33.35)	1907 (34.25)	2414 (35.20)	2448 (32.43)	+146.28
Social services	929 (22.22)	1048 (20.36)	1241 (22.29)	1526 (22.25)	1650 (21.86)	+ 77.61
Economic Services	1206 (28.85)	1426 (27.70)	1761 (31.63)	2115 (30.84)	2523 (33.43)	+109.20
Grants in aids and contribution	0.04	--	--	--	--	--
Capital Expenditure	1000	889	596	711	867	-(13.30)
General Services	25 (0.59)	39 (0.75)	35 (0.62)	49 (0.71)	32 (0.42)	+28.00
Social Services	241 (5.76)	236 (4.58)	210 (3.77)	208 (3.03)	240 (3.18)	-0.41
Economic Services	734 (17.55)	614 (11.92)	351 (6.30)	454 (6.62)	595 (7.88)	-18.94
Disbursement of loans and advances	51 (1.22)	67 (1.30)	62 (1.11)	91 (1.32)	59 (0.78)	+15.68
Total	4180	5147	5567	6857	7547	+80.5

Source: * Compiled from the Report of Comptroller & Auditor General of India, 2001

() = percentage of total

+ = Increase - = Decrease

The break-up of the total expenditure reflected in the Table V.3 reveals that in case of revenue expenditure, economic services has received priority, as 36.97 per cent of

total revenue expenditure has been spent on it. It is followed by general services (36.97 per cent) and social services (24.92 per cent). As against this, in case of capital expenditure 68.63 per cent has been spent on economic services followed by 27.68 per cent on social services and only 3.69 per cent on general services. In case of revenue expenditure the expenditure on general services, social services and economic services has increased by 146.28 per cent, 77.61 per cent and 109.20 per cent respectively from the year 1996-97 to 2000-01. In the case of capital expenditure where the expenditure on general services has increased by 28.80 per cent but has decreased by 0.41 per cent and 18.90 per cent in respect of social services and economic services respectively during the period 1996-97 to 2000-01.

While investments made out of capital outlay promote developmental, manufacturing, marketing and social activities and led to asset creation, the decrease in the level of capital expenditure is likely to result in a serious shortfall in capital formation, which can have a long-term adverse effect on the state's economy. When the state government uses such portion of its income as well as borrowings for consumption expenditure it arrests the pace of development and lays more burden on the economy. Therefore, government needs to curtail revenue expenditure as well as concentrate on the augmentation of revenue income. The government can reduce its current expenditure by reorganizing itself and reinventing the way of doing work, improving the efficiency of expenditure, reducing subsidies and other unproductive expenditures. Further, in order to analyse the position of state finances thoroughly, Table V.4 reflects total income and expenditure with revenue/fiscal deficits of the state.

Table V.4
Total Income and Expenditure of the State

(Rs. in crore)

Year	Total Income	Total Expenditure	Revenue Expenditure	Revenue Surplus/Deficit	Fiscal Surplus/Deficit
1996-97	3226	4180	3129	+ 94	- 954
1997-98	4646	5147	4191	+ 451	- 501
1998-99	4513	5567	4909	- 400	- 1054
1999-2000	5519	6857	6055	- 541	- 1338
2000-2001	5674	7547	6621	- 961	- 1873

Source: Compiled from the Report of Comptroller & Auditor General of India, 2001.

+ = Surplus - = Deficit

Table V.4 presenting the comparative scenario of income and expenditure of the state reflects a growing mismatch between revenue and expenditure of the state with the resultant deterioration in revenue/fiscal deficits. The table demonstrates that the total income has increased by Rs. 2448 crore, registering an increase of 76 per cent

from the year 1996-97 to 2000-01. The net increase in the total expenditure has been to the tune of Rs. 3367 crore, amounting to an increase of 81 per cent. While there has been an increase of Rs. 3492 crore in revenue expenditure (amounting to an increase of 112 percent) capital expenditure showed a decline of 13 per cent during the said period.

The table also shows the revenue and fiscal deficit/surplus of the state for the past five years. The revenue deficit is the difference between revenue receipts and revenue expenditure whereas fiscal deficit basically shows the difference between the total income of the state and its total expenditure. The results indicate that for the years 1996-97 and 1997-98, there was revenue surplus but from the years 1998-99 onwards, not only there was a revenue deficit but that too in an increasing trend. Revenue deficit increased from Rs. 400 crore in 1998-99 to Rs. 961 crore in the year 2000-01, reflecting an increase of 140.25 per cent. Similarly, the fiscal deficit recorded an increasing trend. It increased from Rs. 954 crore in the year 1996-97 to Rs. 1873 crores in the year 2000-2001, registering an increase of 96.33 per cent.

A more disturbing feature of state finances emerging from Table V.4 is that the revenue deficit as a percentage of fiscal deficit has been growing very fast. It increased from 37.95 per cent in the year 1998-99 to 51.31 per cent in the year 2000-01. This reveals that borrowed funds or grants from the Centre are being increasingly used to meet revenue expenses and not used for productive purposes. This can lead the state to a debt trap and may arrest the pace of development. The primary reason for increasing trend in revenue and fiscal deficit has been that the state has not been able to generate additional revenue from its own sources and there has been a phenomenal increase in the revenue expenditure during the last decade. The revenue expenditure, which was 75 per cent of the total expenditure in 1996-97, rose to 88 per cent in 1998-99 and remained constant thereafter. The factors mainly responsible for enormous increase in expenditure were:

- Phenomenal increase in expenditure under security-related items. This expenditure is not fully reimbursed by the central government.
- Increase in the salaries of government employees due to the pay revisions, which has increased more than four times during the current decade. The wage bill of the employees increased from Rs. 700 crore in 1990-91 to Rs. 3000 crore in 1999-2000. Besides, the increasing rate of dearness allowances paid to government employees creates additional burden.
- Higher level of debt servicing due to increase in loans and overdrafts which ranged between Rs. 211 crore in 1996-97 to Rs. 845 crore in the year 2000-

01. The state is in debt trap on account of central loans, market borrowings and other loans besides the bank overdrafts.

- Losses on account of State Electricity Board (SEB) amounts to Rs. 671 crore for 1999-00. The state also owes more than Rs. 700 crore to various power companies.

Further, the revenue of the state has not kept pace with the increasing expenditure. In fact, the performance of J&K has been very poor in mobilizing plan resources during the IX plan. The state was not able to mobilize the plan resources fully during IX plan because:

- The government machinery was not able to work effectively. Due to turmoil in the state and threat perception on the part of the government officials, the revenue collecting authorities were not able to work effectively. They were not in a position to visit different areas for the collection of dues from the consumers, which included power tariff, etc. Further, government machinery was not able to collect the sales tax and other dues during the period.
- Due to the turmoil in the state people could easily avoid paying tax and other dues to the government, and a substantial amount of revenue due from consumers went into arrears, most of which is still unrealized.
- Most of the public sector undertakings of the state have been running into losses continuously. Despite their poor performance and complete erosion of their paid-up capital, the state government continued to provide financial support to these loss-incurring companies. In view of their poor performance, the Godbole Committee recommended closure of most of these enterprises and restructuring/re-engineering of some of these undertakings. However, the government could not take a decision in this regard due to various social, political and economic reasons and this resulted in the enhancement of the burden on the state exchequer.
- Subsidy provided by the government in various sectors has added to the financial woes of the state.

Despite the fact that these factors affected the availability of funds for the business of the government and were responsible for the phenomenal increase in expenditure, inefficient fiscal management further accentuated the problem of deficit. While the problem of large and persistent revenue/fiscal deficits is too serious, it calls for urgent attention. The government should look for effective alternatives to control the deficit and also generate additional resources for making investments for productive

purposes and for improving the social and economic infrastructure in the state. Given the present level of the state's social and economic infrastructure, and the limited revenue potential and high growth requirements, it is a difficult task for the state government to generate enough revenue to meet all its requirements. However, it should be able and willing to raise a revenue income that can finance its revenue expenditure in full.

POLICY RECOMMENDATIONS

The state needs to institute improved practices of financial management and radical re-orientation of major policies for improving the efficiency of resource use in the state. In fact, a sound and effective management of state finances calls for efficiency, economy and effectiveness of revenue and expenditure operations. There are many potentialities for improving the revenue receipts in the state. The following long-term and short-term measures are recommended for improving the financial management practices of the state:

LONG-TERM MEASURES

- I. The revival of tourism in the state to pre-militancy level will not only increase the contribution to GDP but can be perceived as an effective tool for broad-basing the taxation policy structure. However, this option cannot be harnessed at this stage due to the militancy and law and order problems.
- II. Attracting capital investment, both domestic and foreign, would enhance the financial strength of the state. The promotion of investment can be strengthened once the law and order situation in the state is increased.

SHORT-TERM MEASURES

Short-term measures shall focus on enhancing revenue realization, to curtail wastage of resources and to ensure effective servicing of the taxation measures.

I. Reduction in expenditure on establishment

Revenue expenditure is the major drain on the limited financial resources of the state. It is a fact that initially due to the adoption of the Fifth Pay Commission Report, there has been a tremendous and immense growth in the revenue expenditure but then it does not account fully for the deterioration in financial profile of the state since 1999 onwards. The total establishment is estimated to be about 3.25 lakh

personnel which, given the population of the state and also the need structure, is out-sized. This is the single most contributory factor that has aggravated the problem. Some of the suggestions in this regard are:

- (a) Most of the PSUs in the State are moribund and in the red. Public sector undertakings like the JAKFED, AIDC, JKTDC, JK Cable Car, and HPMC can be privatized. Rather, some of these organizations own large assets including cold storages, buildings, huge lands which can fetch good money to the government for investment in the developmental activities.
- (b) Government institutions that have outlived their utility can be abolished. For instance, Agrarian Reforms Division in the Revenue Organization where the job can be performed by the Territorial institution; Housing Board because of its overlapping interest with the entity of SDA and JDA (as all these institutions and JDA are doing the same job). Even in the long run, the jobs entrusted to SDA and JDA can be passed on to the Municipal Corporations. Thus, institutions like Housing Board, Agrarian Division and Command Area Development Authorities need to be abolished herewith.
- (c) The state government could be assisted by the Government of India or through banking arrangement for implementation of the VR scheme. This scheme can be implemented to begin with for such of the wings of the state government that are required to be abolished. Similar assistance can be given for dispensing with the services of employees of most of the corporations that can be listed for closure. Most of this amount can be offset and countervailed against the realization from the sale and disposal of the assets available with these organizations.
- (d) There should also be specific targets for the reduction of the size of the bureaucracy within a definite time frame.

II. Control of overdraft

- (a) There should be an upper limit for overdraft that must be fixed keeping in view the critical requirement of the state and be fully enforced through different measures including guidelines from RBI. There should be a special dispensation to cover the overdraft over a period of 3 years. This is virtual reality and has to be dealt with as a malaise.
- (b) The Government of J & K should make an arrangement with its official bank, the J & K Bank Ltd., wherein for determining the actual amount of overdraft/loan on a particular date, the summation of balances, credit or debit, from all

the government accounts in the bank, should be used. This can be achieved by opening a central account in the bank with its sub accounts in different branches of the bank. This measure has the potential of saving 10 to 15 crore of rupees annually.

- (c) The practice of re-appropriation of funds by different officers of the government beyond their competence should not be allowed without proper permission from higher authorities.
- (d) A proper and readily accessible record of works done, under process and planned under different heads with outlays should be maintained at different concerned levels and in all DDOs and treasury offices of the area in order to stop completely the duplication of payments under different heads.
- (e) It should be made mandatory for all the government departments to close their books on 31 March and prepare their annual accounts on this date. These reports should be submitted to the finance department in the first week of April. These comparative statements will reveal the position and performance of each departments.
- (f) All the functions of the finance department and its offshoots should be computerized and linked with one another on a priority basis in order to improve the management of finances of the state and bring transparency to financial transactions.

III. Power Sector Reforms

The power sector is confronted with immense problems including deficit in production and supply and huge arrears within the state, particularly from the public sector undertaking and government departments. Some of the measures that can be considered are as follows:

1. To restructure the power sector and carry out large-scale reforms that are aimed at: (a) to reduce losses, (b) to induce accountability, (c) to ensure proper account of power supply and distribution.
2. Universal metering should be implemented with universal coverage to obviate incidence of theft.
3. The power distribution needs to be privatized.
4. An effective system of recovery of dues with suitable incentive structure should be introduced.
5. The moratorium on the recovery of dues amounting to Rs.700 crore by the Central agencies shall be linked with the reformation process.

IV. Funding of Development programme

To boost the economy of the state the central government should ensure accountability. This will ensure infusion of funds for the specified areas/ objectives and will strengthen thrust sectors for which there is a tremendous potentiality in the state. These sectors include urban development, rural development, tourism, agriculture, drinking water, power, forest, employment generation and infrastructure development. In this context, the following steps need to be taken:

1. All the ongoing schemes should be reexamined with reference to zero budgeting and most of the schemes which have the same objective can be merged or converged or can be weeded out, particularly the same schemes which appear on Plan and non-Plan side. Therefore, to avoid overlapping, such schemes should be funded only through one source.
2. Most of the projects which suffer from time and cost overrun need to be reviewed so that the investment decisions are taken in such a way that those projects which can be completed should be accorded priority and those with long gestation and high investment can be taken up only after the prioritized schemes are completed and consummated.

V. Special Category State

Jammu & Kashmir, though classified as Special Category State, was not accorded the dispensation as visualized for these States (with the exception of Assam) in terms of financing the Plan expenditure in the ratio of 90:10 of grant and loan respectively. Although this dispensation was conceded with effect from 1991, the state government has been asking for application of this formula from the date it was applied to all the Special Category States in the country. This measure can be considered as an important tool to offset and countervail the debt liability. Thus by notionally working out the financial dispensation for the state government, this can be adjusted against the debt liability as a one time settlement. This would reduce tremendously the debt burden and would allow for the capital expenditure to pick up, commensurate with the developmental requirements.

VI. Others

1. Most of the Plan expenditure is on maintaining services in education and health sectors. There is a need to explore external funding for critical areas and to get funds from Infrastructural Fund/NABARD.

2. The government should make a complete shift to zero base budgeting.
3. The government should completely shift over to the Value Added Tax System.
4. Security-related expenditure needs to be fully reimbursed. The Government of India has not been able to fully discharge the liability on this account.

CHAPTER VI

Border Area Development

INTRODUCTION

Jammu and Kashmir covers an area of 2,22,236 sq. km. of which 78,114 sq. km. is under illegal occupation of Pakistan and 37,555 sq. kms under China. In addition to this, 5,180 sq. kms. of Jammu and Kashmir was illegally ceded to China by Pakistan under the March 1963 Sino-Pak. boundary agreement.

People of Jammu and Kashmir living close to the international border have to deal with special problems arising out of their distinct geo-physical situation and concomitant socio-economic conditions. People are facing hardship because of inadequate and/or lack of basic infrastructural facilities. Also, due to adverse climatic conditions, the working season remains very short in the state, resulting in low levels of development. Therefore, it is necessary to meet the special needs of the people of the region.

BORDER AREAS

The border areas of Jammu and Kashmir cover ten districts as shown in Table VI.1.

In view of the difficulties faced by the people, the Border Area Development Programme (BADP) was introduced in 1992-93. It was started in 41 CD and NES blocks of state bordering Pakistan. After the creation of new block 'Teetwal' from Tangdar block in Kupwara district, the programme is presently under implementation in 42 blocks. In addition, two blocks of Nyoma and Durbuk bordering China in Leh district were brought under the programme during 1998-99. Thus the total number of blocks covered under the programme is 44.

The district-wise names of the CD and NES blocks bordering Pakistan are given in Table VI.1.

Table V1.1
Blocks Bordering Pakistan & China (District-Wise)

District	No. of Blocks	Name of the blocks
Jammu	8	Samba, Vijaypur, Bishnah, R.S. Pura, Satwari, Marh, Akhnoor, Khour
Kathua	4	Ghagwal, Huranagar, Barnoti, Kathua
Rajouri	4	Sunderbani, Nowshera, Rajouri, Manjakote
Badgam	1	Khag
Poonch	4	Balakote, Mendhar, Poonch, Mandi
Baramulla	7	Booniyar, Gurez, Tangmarg, Baramulla, Ruhama, Uri, Dangi-wacha
Kupwara	9	Tangdhar, Kralpora, Trehgam, Kupwara, Sogam, Langate, Rajwar, Ramahal, Teethwal,
Kargil	3	Drass, Kargil, Shaker Chikten
Leh	2	Khaltsi, Nubra
Leh (China)	2	Nyoma, Durbu
TOTAL	44	

Source: Planning Department, Government of Jammu and Kashmir.

Of these Ladakh divisions is the largest, comprising two districts – Leh and Kargil. Leh is situated in the eastern portion of the Ladakh region of Jammu and Kashmir bordering Pakistan occupied Kashmir and Chinese-occupied Kashmir in the north and north-west, Tibet in the east and Lahaul area of Himachal Pradesh in the south. The district covers an area of more than 45000 sq.km. It is the coldest and most elevated inhabited region in the country with altitudes ranging from 2300 metres to 5900 metres above mean sea level. The district generally remains landlocked between November and June. The district combines the condition of both Arctic and desert climates. The temperature fluctuates from 30° C in summer to -30° C in winter. Precipitation is very low averaging around 9 to 10 cm.

The district has a low population of about 1 lakh persons and low density of 2 person per sq. km. – the lowest in the country. The urban population comprises 12 per cent of the population. The literacy rate is also very low accounting for 25 per cent. Agriculture is the main activity of the people. The main crops grown are grim, wheat and fodder. Apricot and vegetables are also grown in various parts of the district.

GEOGRAPHICAL FEATURES OF BLOCKS BORDERING PAKISTAN (LADAKH DIVISION)

Nubra Block: Deskit-Nubra block is famous for its culture and scenic beauty. The block is connected with an all-weather road which goes via famous Khardungla Pass,

situated at an altitude of 18,500 ft. This is the world's first highest motorable road. The block is situated at an altitude of 9000 ft. which is the lowest in the district. Strategically, the block is very important and is bounded in the north by Pakistan-occupied territories of the district. The Shayok river divides the block into two parts and to its north-west fall Khaltse block, to the south-west the Durbuk block and to the south-east Leh block. Here it may be mentioned that the Shayok and Siachen rivers, which flow through this region make no contribution to agriculture.

As per the DISNIC survey conducted during 1994, the Nubra block consists of 28 villages and 30 hamlets constituting 2489 households with a total population of 13564 persons. Out of this, males account for 6770 and females 6794. The block is divided into 6 panchayat halqas. The total area of the block is 17610.40 hectare of which 1978.40 hectare is cultivable. Land under forest accounts for 294.4 hectare. Area under fruits and vegetables accounts for 10.4 hectare. The block is self-sufficient in fire wood.

Khaltse Block: It is situated to the south-east of the district. The Nubra block falls to its north-east and Kargil district to its south-west. Out of the total area of 6034 hectare 2038.8 hectare are cultivable. Most of the cultivable area is mono cropped.

The block consists of 24 villages and 56 hamlets. Depending on the topography, climate and living conditions, the block can be divided into plain and hilly area. The hilly areas include Wanla, Lamayuru, Lingshet, etc. Villages from Kahltsse-Dah Baima constitute the plain areas. The plain portion of the block has tremendous scope for the development of fruits and vegetables and other crops due to availability of fertile soil and a favourable climate.

The total population of the block is 14732 persons of which 7123 are females and 7609 are males. The block has been divided into eight panchayat halqas.

GEOGRAPHICAL FEATURES OF BLOCKS BORDERING CHINA (LADAKH DIVISION)

Durbuk Block: Situated in the north-eastern portion of Leh district, it is one of the coldest, remote and backward blocks of the district. It is located at an altitude of 13,500 feet above sea level. The reasons for its backwardness are its difficult terrain, harsh climate and lack of infrastructural facilities. The winter temperature in the area is as low as -45° C.

The block has five villages and consists of 21 hamlets. Total cultivable area is only about 22 per cent. Prolonged and severe winters restrict the growth of crops and hence the area is mono-cropped. The only source of irrigation is canals/khuls.

Literacy rate is also low, accounting for only 25 per cent. However, not much disparity is found between male and female literacy levels. Based on the topography of the region, living conditions and way of life of the people, the block can be conveniently divided into two parts. In the upper portion, comprising Manpong, Kargyam and Chhushul villages, people lead a semi-nomadic life and are mainly dependent on livestock. In the case of the lower part comprising Tangste, Shachukul and Durbuk villages, people are dependent on both agriculture and livestock.

Nyoma Block: This is one of the coldest blocks of the district and is situated at an altitude of approximately 13,000 to 14,000 feet from the sea level. Owing to the harsh terrain, difficult approach, severe winter and lack of infrastructural facilities, the block is very backward and people live below poverty line. The block is split up diagonally by river Indus.

Strategically the block is very important and is bounded by north and east by China, Himachal Pradesh in south and Leh in its east.

Demographically, the area is thinly populated. It consists of 18 villages and 13 hamlets out of which one village, Mansar, is uninhabited. Villages are situated at far-off distances, which hamper the developmental activities. Winters are prolonged and severe and as such agricultural activity is limited. The main product is barley which is suitable for such climate. The entire population depends on livestock especially sheep and goats. However, 30 to 40 per cent of the population lead a nomadic life and move with their livestock from one place to another in search of fodder.

These aspects attracted the attention of planners for the creation of economic infrastructure, development of already available pasture lands, development of additional pasture land, development of agriculture by constructing khuls/canals, land development, fodder development, etc. Also avenues may be created for development of handloom and handicrafts using pashmina and raw wool. It is also necessary to bring about qualitative and quantitative improvements for raising the income of the people. Training programmes may also be organised by utilising locally available resources for upgrading the skills. For qualitative improvement, emphasis needs to be given on education and health by constructing hostels, primary schools, health centres, strengthening of the mobile school, etc.

In September 1995, Ladakh Autonomous Hill Development Council was formed. The council has been vested with the powers to formulate, implement, review and

monitor all developmental programmes including Five-Year Plan and Annual Plan. The council is trying to reorient its strategies to meet the expectations of the people in various fields and also ensure better utilisation of available local resources. It is expected that an autonomous set-up, based on democratic principles (people's participation) will ensure better accountability and efficient utilisation of resources for the development of the people.

All the other 40 blocks also have similar features including low literacy levels, agriculture as the main occupation, low levels of living and inadequate or lack of infrastructure facilities.

BACKGROUND OF BORDER AREA DEVELOPMENT PROGRAMME

With a view to ensuring a balanced development of the border districts and border areas, a programme was started in 1986-87, called Border Area Development Programme (BADP) for the states bordering Pakistan, namely, Jammu and Kashmir, Punjab, Gujarat and Rajasthan. The main objectives of the programme are:

- To ensure balanced development of sensitive border areas in the western region through adequate provisions of infrastructural facilities.
- Promotion of a sense of security amongst the local population.

During the Eighth Plan BADP was revamped and its coverage extended to the states on the eastern border with Bangladesh. Initially the programme was schematic in nature with emphasis on education. However, it was changed to a state-level programme with emphasis on the balanced development of border areas. As per this changed/revised programme, the main objective was to meet the special needs of the people living in remote, inaccessible areas near the border.

In the Ninth Plan period the programme was extended to all the border lands in response to the demands of the state governments and the Ministry of Home Affairs. Thus the programme was extended to the states bordering Myanmar, viz., Arunachal Pradesh, Manipur, Mizoram and Nagaland. Subsequently, the states bordering China namely Arunachal Pradesh, Himachal Pradesh, Uttar Pradesh, Sikkim and Jammu and Kashmir were included under the programme. In 1999-2000, the programme was further extended to include the states bordering Nepal and Bhutan.

BADP is a 100 per cent centrally funded programme and Special Central Assistance (SCA) is provided for the execution of approved schemes. The SCA under BADP is distributed amongst the beneficiary states on the basis of the three parameters,

viz., area and population of the bordering blocks and length of international border. The block is the basic unit for the programme.

Although BADP is a 100 per cent centrally sponsored scheme, it has been considered as a part of the state plan. The schemes to be taken up under the programme are prepared by the concerned departments in the state and submitted to the nodal department for approval by the state-level screening committee. For execution of the programme at the national level, an empowered committee of BADP has been constituted under the chairmanship of Member-Secretary of Planning Commission, New Delhi. At the state level, screening committees were constituted under the chairmanship of Chief Secretary in each state. The empowered committee at the central level deals with the policy matters relating to the scope of the programme, prescription of the geographical limits of the areas in the states and allocation of funds to the states.

PROGRAMMES FOR BORDER AREA DEVELOPMENT

Implementation of Programmes/Schemes in Districts Bordering Pakistan

The schemes being selected by the state government under the programme are generally from sectors such as education, health, roads and bridges, water supply etc. Particular emphasis is being given to improvement and strengthening of social and physical infrastructure. For this, the felt needs of the people are the prime criteria. Some of the schemes implemented in the blocks of Jammu, Kathua, Poonch, Kupwara, Baramulla, Budgam, Leh and Kargil districts bordering Pakistan are as follows:

Table VI.2
Schemes/Programmes in Districts Bordering Pakistan

S.No	Sectors	Ongoing Schemes
1	Education	1 Construction of PS buildings
		2 Construction of MS buildings
		3 Construction of additional classrooms
		4 Development of play fields
		5 Construction of Dormitory/Hostels
		6 Construction of Laboratory block
		7 Construction of Bathrooms/Toilets
		8 Books/Journals for libraries
2	Health	1 Construction of PHC buildings
		2 Construction of MOS quarters
		3 Construction of Sub-centers

		4	Dental units
		5	AD buildings
		6	Construction of operation theatres
3	Rural Development	1	Construction of community centres
		2	TV/Dish Antenna
		3	Link roads completed
		4	Construction of lanes/drains
		5	Household latrines
		6	Construction of bunkers
		7	Construction of <i>saraies</i>
4	Power	1	Creation of sub-station
		2	Beneficiaries covered
		3	Electrified villages covered
		4	Engines of pump sets
5	PHE	1	Upgradation of WSS
		2	Construction of dug wells
		3	Installation of hand pumps
6	R & B	1	No. of schemes
		2	BT
		3	MT/RMT
		4	SH/SOL
		5	FW
		6	Culvert/Bridge
7	Agriculture	1	HV seed distribution
		2	Beneficiaries covered
		3	Soil conservation works on agriculture
8	Food and Supplies	1	Construction of godowns
		2	Provision of K. oil tanks
9	Irrigation	1	Improvement of Khuls
10	Animal/Sheep Husbandry	1	Establishment of poultry units
		2	Completion of veterinary centers
11	Horticulture	1	Establishment of fruit plant nursery
12	J & K Police	1	Constitution of border police posts
13	Production of documentary films		

Note: The block-wise schemes for the blocks bordering Pakistan are not available.

A system of monitoring the scheme under BADP in physical and financial terms has been introduced since 1994-95 and the concerned state government submit reports indicating the scheme-wise achievements in financial and physical terms to Planning Commission.

Allocations and Expenditure: As against Rs. 19,260 lakh released by Government of India, an expenditure of Rs. 18,897.74 has been incurred, (Rs. 362.26 lakh unspent balance), as on 31.3.2002. The year-wise details of funds released and expenditure incurred is given in the Table VI.3.

Table VI.3
Year-wise details of income and expenditure incurred

(Rs. in lakh)

Year	Funds released by Government of India	Expenditure Incurred
1993-94	1400.00	1361.03
1994-95	1750.00	1676.96
1995-96	1925.00	1467.43
1995-96 (Supp. Grants)	143.00	124.11
1996-97	1979.00	1679.61
1996-97 (Supp. Grants)	89.00	78.98
1997-98	1034.00	1518.91
1998-99	2138.00	1903.04
1999-2000	2352.00	2591.10
2000-2001	2965.00	2725.37
2001-03	3485.00	3771.20
Grand Total	19260	18897.74

Source: Planning Department, Government of Jammu and Kashmir.

Physical Achievements: Details of Physical achievements under Border Area Development Programme in 42 border blocks of Pakistan are given here under:

Table VI.4
Sector-wise Physical Achievements under BADP

Sector	Cumulative Achievement up to		Net Addition in March 2002 (Nos.)
	March 2001 (Nos.)	March 2002 (Nos.)	
Education*	1334	1522	218
Health**	352	388	36
Rural Development***	11456	11562	106
Solar Lighting ^{\$}	7584	7584	0
Road Communication ^{\$\$}	895.71	1180.71	285
Power Sector ^{\$\$\$}	494	608	114
PHE [#]	99	144	45
Strengthening of security Facilities ^{##}	37	44	7
Social Forestry ^{###}			
<i>Area under village woodlot</i>	<i>503 (Hectares)</i>	<i>503 (Hectares)</i>	<i>0</i>
<i>Plantation</i>	<i>4.29 (Lac)</i>	<i>4.29 (Lac)</i>	<i>0</i>
<i>Agriculture[@]</i>	<i>23 (Quintals)</i>	<i>140 (Quintals)</i>	<i>117</i>

Source: Planning Department, Government of Jammu and Kashmir

* Education

- Primary School buildings constructed
- Middle school constructed
- Additional classrooms constructed
- Hostels/dormitories constructed
- Play fields developed

** Health

- Ambulance purchases
- X-ray machines installed

- Ultrasound machines purchased
- Dental chairs purchased
- PHCs/MOs quarters constructed

*** Rural Development

- Community Centers
- Household latrines constructed
- Institutional latrines constructed
- Cattle plate farms constructed

\$ Solar Lighting

- Solar street lights installed
- Solar domestic lights installed

\$\$ Road Communication

- Fair whether
- Shingled
- Metalled
- Black Topped
- Other schemes covered by R&D

\$\$\$ Power Sector

- Augmentation of sub-stations
- Energization of pump stations

PHE

- Installation of hand pumps
- Implementation of water supply schemes

Strengthening of Security Facilities

- Police stations constructed
- Police posts set up
- Residential barracks constructed

Social Forestry

- Area covered under village woodlot plantation
- Plantation

@ Agriculture

- Provision of high yielding variety of seeds

***Border Area Development Programme (Indo-Pak Border, Ladakh Division)
2001-02***

The border area development programme (2001-02) has been formulated with an outlay of Rs. 183.03 lakh. In order of priority Rs. 80.19 lakh was proposed under education sector followed by PWD sector (Rs. 45.15 lakh), Rural Development Sector (Rs. 22.59 lakh), Health sector (Rs. 22.00 lakh), PHE and information sector (Rs. 5 lakh each), Food and supplies sector (Rs. 1.50 lakh). The planning and development department has given first priority to the completion of ongoing works/schemes. No new work/scheme has been proposed for the year 2001-2002. The sector-wise highlights are given as under:

Education: Rs. 80.19 lakh has been proposed for completion of 24 ongoing works. This includes construction of residential hostels at Khaltse and Deskit. All these works are proposed to be completed during 2001-02.

Sheep Husbandry: Rs. 1.50 lakh has been proposed for purchase of 1000 Pashmina kits which will be provided to the pashmina goat rearers.

Information: Rs. 5.00 lakh has been earmarked for purchase of dish antenna/TV sets which will be provided and installed in the community centers in the rural areas. About 16 villages are proposed to be covered under this scheme during the year 2001-02.

Rural Development: Rs. 22.59 lakh has been proposed for completion of three on-going schemes which include completion of 187 bunkers in Turkut area, construction of one community centre each at Largyap Gongma and Nurla.

Health: Rs. 22.00 lakh has been proposed for completion of ongoing schemes, i.e. completion of one M.O quarter at Bogdang, 10 MAC buildings in Nubra and Khaltse blocks, one AD building at Saspol and construction of additional accommodation in PHC Turbuk.

PWD: Rs. 45.15 lakh has been proposed for completion of 4 ongoing schemes including one 6 metres span RCC culvert at Hemis Kongshet road.

PHE: Rs 5.00 lakh has been earmarked for installation of 5 India Mark II hand pumps in Khaltse/Nubra blocks.

Implementation of Programmes/Schemes in Districts Bordering China

During 1998-99 the programme was extended to the states bordering Myanmar, China, Bhutan and Nepal. Accordingly, CD and NES blocks of Nyoma and Durbuk in district Leh bordering China were brought under the programme.

Some of the schemes in the blocks of Nyoma and Durbuk bordering China are listed in Table VI.5.

Table VI. 5
Important Schemes in Border Blocks of China

S.No	Sectors	Ongoing Schemes
1	Agriculture	1 Establishment of fodder research farm Nidder
		2 Distribution of agricultural implement kits
		3 Potato development in Changthang
		4 Oats, Local Peas
		5 Construction of office-cum-residential quarters
		6 Vegetable development in Changthang
		7 Incentive for vegetable production

2	Sheep Husbandry	1	Construction of buildings for sheep extension centres
		2	Fodder development in Khurli farms
		3	Purchase of improved Pashmina kits
		4	Provision of portable dipping vats
		5	Construction of main store for feed at Nyoma
		6	Purchase of petrol drive shearing scheme
		7	Development of Nuruchan Command Area
		8	Purchase of veterinary kits to paramedics
		9	Construction of office/residential quarter at Nyoma
		10	Construction of feed store at Tsaga
		11	Establishment of mini farms per block on subsidy as per norms
		12	Breeder's camp
		13	Repair/ remodelling/ renovation of existing building at Khurli farm
		14	Construction of modern Paddocks at Khurli farm
		15	Phase wise fencing of pasture area and construction of shelter huts for staff at Skakjung / Lungkung and Queng area
		16	Provision of mobile veterinary dispensary
		17	Training to community veterinary workers
		18	Pasture development
		19	Provision of subsidy on cost of feed as per government norms
		20	Pilot project for value addition in pashmina processing
3	Forests	1	Afforestation
		2	Silvi pasture development
		3	Nursery
		4	Construction of staff quarters at Nyoma
		5	Construction of forest rest house and staff quarter at Tangtse
		6	Purchase of Tractor
		7	Nursery of poplar
4	Wild Life	1	Construction of range office / residential quarters
		2	Establishment of nature interpretation center
		3	Construction of watch tower at Tsokar (wet land reserve)
5	Youth Service & Sports	1	Purchase of games and sports materials
		2	Purchase of ice hockey equipments
		3	Purchase of Archery equipments
	Construction Programme	1	Construction of indoor stadium
		2	Construction of open stadium
		3	Development of play fields
		4	Construction of ice hockey / skating rink
6	Education	1	Improvement of existing schools
		2	Construction of other school buildings
		3	Purchase of equipment and furniture
7	Health	1	Purchase of ambulances for PHC
		2	Purchase of machinery and equipments
		3	Other medical programmes such as purchase of first aid kits, mobile dispensary, medical camps, etc.
		4	Construction programme
8	Animal Husbandry	1	Setting up of cross-bred Jersey / Dzomo cow unit

		2	Provision of animal feed
		3	Health care
		4	Fodder development at Nyoma
		5	Construction of veterinary dispensaries
		6	Establishment of Yak farm
		7	Construction of bull shed at Nyoma
		8	Establishment of Pony / Horse unit
		9	Purchase and distribution of animal feed
		10	Reclamation of land
		11	Provision of community breeding units
		12	Vaccine / medicines
		13	Renovation of bath and veterinary building at Nyoma
9	Rural Development	1	Construction of buildings
		2	Parks and gardens
		3	Communication
		4	Rural sanitation
		5	Soil conservation works
		6	Other works
		7	Irrigation
		8	Rural development works in Durbuk blocks
		9	Rural roads
10	Soil Conservation	1	Fertilisation and manuring work
		2	Soil working for introduction of legumes / grass
		3	Chain-link fencing
		4	Purchase of tents
		5	Pasture development
11	Food and Supplies	1	Installation of tanks in each village
		2	Purchase of tankers for nomadic tribes
		3	Construction of food store
		4	Purchase of weighing equipments
		5	Compounding walling of food store / repair of chowkidar huts
		6	Installation of oil tanks
		7	Construction of ration store
12	PWD	1	Minor Irrigation
		2	PHE
		3	R & B
13	Non-functional buildings		
14	Miscellaneous		includes schemes related to Information, Command Area Development, Handloom, Tourism, etc.

Source: Draft Action Plan under BADP (China Border) 2002-03, Government of Jammu and Kashmir.

The above tables (schemes/programmes in border blocks of Pakistan and China) show the on-going schemes for mitigating the problems of border areas. Here, it is worth mentioning that these programmes are continuously gaining momentum and have strengthened not only security activities but also all aspects of development in all the border districts.

Allocations and Expenditure: Out of Rs. 30,000 lakh released by the Government of

India since 1998-99 till March end 2002, an expenditure of Rs. 2975.12 lakh has been incurred for implementation of various schemes under the programme leaving an unspent balance of Rs. 24.88 lakh in March 2002. The year-wise details of the funds released by the Government of India, funds authorised by the State Government and the expenditure incurred by the executing agencies are as under:

Table VI.6
Funds Released, Authorised and Expenditure Incurred (Year-wise)

(Rs. in Lakh)

Year	Funds		Expenditure Incurred
	Released by Government of India	Authorised by P & D Department	
1998-99	1000.00	0.00	0.00
1999-2000	1000.00	2000.00	701.89
2000-2001	1000.00	2298.11	1226.45
2001-2001	-	1071.66	1046.78
Total	3000	5369.77	2975.12

Source: Planning Department, Government of Jammu and Kashmir.

The details of physical achievements are given in the following Table.

Table VI.7
Sector-wise Physical Achievements under BADP

Sector	Cumulative Achievement up to		Net Addition in 2002
	March 2001 (Nos)	March 2002 (Nos)	
Education *	32	58	26
Animal Husbandry **	41	42	1
Irrigation #	22	23	1
Rural Development ##	96	102	6
Communication @	16.70 km	61.11 km	44.41 km

Source: Planning Department, Government of Jammu and Kashmir.

* Education

- Construction of primary school buildings
- Construction of additional classrooms
- Development of play fields/Open/Indoor stadium
- Construction of residential quarters for ZEO at Tangts (Durbuk)
- Construction of Hostel at degree college in Nyoma and Durbuk blocks
- Construction of class rooms in primary schools (Durbuk)
- Construction of community school at Lukung Durbuk

** Animal Husbandry

- Setting up of cross-bred Jersey cow units (Nyoma and Durbuk)
- Construction of bull shed at Nyoma

Irrigation

- Extension of irrigation canal at Nurchen
- Construction of storage tanks

- Construction of protection bunds at Earth part III
- Construction of head work of Khul and R/wall at Shyok

Rural Development

- Construction of foot bridges at Nyoma
- Construction of bathrooms at Tukla (Nyoma)
- Construction of household latrines (Nyoma)
- Wooden flooring of community hall

@ Communication – Link Roads added

- Shingled
- Metalled
- Fair weather

***Border Area Development Programme (Indo-China Border, Ladakh Division)
2002-03 (Proposals)***

The BADP (China Border) has been formulated with an outlay of Rs. 1000 lakh. As per the Planning and Development Department, priority has been given for the completion of ongoing schemes. The schemes have been proposed after assessing the critical gaps between the existing infrastructure and the required infrastructure. Further, felt needs of the people have been assessed through interaction with a cross section of the people of the border area and every effort has been made to incorporate their demands. In the order of priority, the amounts proposed are as follows:

**Table VI.8
Proposed Allocation in Different Sectors**

Sector	Proposed Allocations (Rs in Lakh)
PWD	573.45*
PHE	17.50
T & C	451.42
NFB	48.54
Agriculture	7.00
Sheep Husbandry	134.70
Youth service and sports	3.57
Education	69.48
Health	55.04
Animal Husbandry	11.17
Rural Development	129.10
Soil conservation	3.00
Food and supplies	5.69
Information	5.00
Power	4.80

Source: Planning Department, Government of Jammu and Kashmir.

*including 19.19 lakhs under minor irrigation.

Table VI.8 shows that the education and health sectors have very low allocation. It

is suggested that the allocations are increased. Further there is no allocation under horticulture, vegetable and herbs. The altitude and nature of the soil of this area make it uniquely suited for growing herbs.

The sector-wise highlights of the proposal are as under:

Agriculture: Rs 7 lakh has been proposed under this sector which includes Rs. 2.00 lakh for distribution of seed storage bins, Rs. 1.50 lakh for oat seeds and Rs. 1.5 lakh for local peas seeds.

Sheep Husbandry: Rs. 134.70 lakh has been proposed for the purchase and distribution of improved pashmina kits, Rs. 4 lakh for establishment of mini farms. It is also proposed to purchase a mobile dispensary to supplement the efforts of the sheep husbandry department in extending the health coverage to far-flung areas.

Physical Education: Rs. 3.57 lakh has been proposed for the completion of two ongoing schemes, which includes the construction of an indoor stadium and completion of an open stadium at Durbuk.

Education: Rs. 69.48 lakh has been proposed for the completion of the construction of the nomadic type of hostel at Puga, construction of compound walling and toilet for centralised residential hostel at Sato Kargiam.

Health: Rs. 55.04 lakh has been proposed for the construction of 4 staff quarters single room at Chushul, Tangtse, Nyoma and Hemya, construction of PHC building at Hemya. All works are proposed to be completed soon.

Animal Husbandry: Rs. 11.17 lakh has been proposed for the purchase and distribution of 1200 quintals of animal feed for both the blocks.

Rural Development: Rs. 129.10 lakh has been proposed for rural development works like community centres, foot bridges, rural sanitation, soil conservation, etc.

Food and supplies: Rs. 5.69 lakh has been proposed for the construction of 60 MT capacity ration store at Durbuk block and the completion of 100 MTs storage capacity godown at Chumathang, Tsaga, Kungiam, Maan, Merak and Shachukul.

PWD: Rs. 573.45 lakh has been proposed for irrigation schemes, provision of hand pumps through Aquadril, water supply schemes at Shayok, transport and communication, etc.

Information: Rs. 3 lakh has been proposed for purchase of Dish Antenna/TV sets to cover 5 villages in the border blocks.

Power: Rs. 4.80 lakh has been proposed for electrification at Anlay and Nidder of Nyoma block.

BORDER AREA DEVELOPMENT EDUCATION PROGRAMME

This programme is intended for educational development in the border areas of the states of Gujarat, Jammu and Kashmir, Punjab and Rajasthan covering 18 border district and 79 blocks on the western border. Decision has also been taken for extending the scheme to the block adjacent to border blocks. An outlay of Rs. 200 crore has been included in the Seventh Five-Year Plan for this programme. In 1986-87, which was the first year of implementation of the programme (second year of the Seventh Plan), the programme was implemented by the Ministry of Home Affairs. From 1987-88 onwards the implementation of the programme was transferred to the Department of Education with the intention that the programme should henceforth be confined to "education" which is a critical input for the development of border areas. The emphasis is on overall human resource development. The efforts under this programme are a supplement to these states. Educational development programmes, including those that may be taken up under National Rural Employment Programme (NREP), RLEGP, IRD, and Desert Development programme, Rural Development Programme.

From 1987-88 to 1990-91, an amount of Rs. 170 crore were released for:

- provision of essential facilities in schools;
- construction of buildings for primary, upper primary, middle, high and higher secondary schools;
- introduction of vocational courses in senior secondary schools and construction of vocational sheds;
- construction of hostel buildings and staff quarters;
- establishment and strengthening of polytechnics;
- establishment of District Institutes of Education and Training;
- construction of additional classroom and laboratories in existing schools;
- setting up of adult education and non-formal education centres and Jan Shikshan Nilayams and;
- construction of gymnasium halls and youth training centres.

The department of education formulated guidelines and circulated them to border states for implementing the programme. They were requested to send their proposals according to these guidelines. A sanctioning committee under the chairmanship of Union Education Secretary has been set up with representatives from the Planning Commission, the state governments and the concerned ministries to clear the proposals of the states promptly.

ANNUAL PLAN 2002-03*

The Planning Commission, Government of India intimated an allocation of Rs. 3485 lakh under BADP for J & K state during 2002-2003. No separate allocations was made for two border blocks bordering China in Leh district. As such, the current year's allocations are to be utilised in all the 44 border blocks of the state. The District Development Commissioners of the border districts have proposed action plan for 2002-03 at Rs. 4871.67 lakh. After taking into account the current year's allocations and unspent balance of Rs. 370 lakh as on March 2002 the amount available for utilisation during 2002-03 has been worked out to Rs. 3855 lakh.

The allocations made available under the programme by the Government of India have not undergone any change vis-à-vis the previous year's level. It has also to accommodate the requirement of 2 blocks bordering China in Leh district during the current financial year within the available funds.

District-wise outlays and state sector outlays have been worked out at par with last years original allocations inclusive of untied grants of Rs. 15 lakh per district. Rs. 183 lakh are being provided to the Leh district for 2 border blocks bordering China at par with allocations kept for 2 blocks bordering Pakistan in the said district.

Border districts have poor social and economic infrastructure, therefore developmental activities are also accorded due importance in preparing proposals for approval of the Screening Committee. These activities are mainly related to PED, RSEB, PHED, Medical and Health, Sheep and wool, Education, Revenue, Animal Husbandry and Human Resource Development. It is not out of place to mention here that for developmental activities and infrastructure works, only the selected blocks are treated as units.

CRITICAL REVIEW OF BORDER AREA DEVELOPMENT PROGRAMME

The Border Area Development Programme has proved to be very useful in catering to the educational needs of the people living in the border area in the western border with Pakistan; it would be necessary to continue it and extend it to the North-Eastern Region with a view to put an end to the state of stagnation in educational development in that region to and reassure the people of that region about central government's concern who has allocated Rs 500 crore for their socio-economic development.

* *Source:* Planning Department, Government of Jammu and Kashmir.

In spite of the commendable efforts taken up by the government from time to time, the border areas and people living in these areas continue to suffer from various problems. At the very outset, it may be clearly mentioned that the government's report and various other independent studies undertaken to ascertain the levels of socio-economic development in the border areas are in complete contradiction to each other.

The main problem in border areas is that of militancy. The population in the region is very hostile to Pakistan because of the total neglect of this area. On the one hand, militancy in Jammu and Kashmir has acquired ominous form. People have long been victims of the hostility between the two countries as a result of frequent shelling along the Line of Control (LOC) and international border, which has inflicted miseries on the poor, down trodden inhabitants. On the other, lack of employment opportunities other than in the government sector and improper functioning of some of the sectors of the state governments have also contributed to an increase in the problems of the border areas. Consequently, literacy rates still remains quite low, there is little improvement in infrastructure – schools, hospitals, paved roads, electric powers and piped drinking water are almost non-existent, especially in remote border villages. Here, it may be safely guessed that most of the developmental activities has taken place in urban areas, where the index of Social Development (which includes indicators like literacy, health care, access to other social services, etc) may rank moderately high.

Besides, problems are also being faced by border migrants, farmers and army personnel in the wake of heightened tension on the Indo-Pak border. Residents of the border areas, migrants and farmers have been directly affected by the deployment of army in the border villages resulting in damage of their standing crops due to occupation of their land for mining purposes by the troops. Consequently many families have been displaced, as cultivation of such land near the international border becomes difficult. According to the available reports, about 70,100 acres in Jammu and Kashmir is being occupied by the army, which has laid mines in 25,000 acres of land. The remaining land is being utilised by the army for other defence related purposes.

From the foregoing analysis, it may be concluded that since the beginning of Pakistan's low intensity proxy war in the state, terrorist violence has taken a toll of innocent lives. Many people have been displaced from their homes. Terror and intimidation have wrecked the peace for civilian life in the state and cross-border terrorism continues to take a heavy toll of innocent people. As a result, no long-term schemes and programmes can be implemented effectively. While the central

government is continuing its strategy to counter terrorists and separatists encountering violence in Jammu and Kashmir by deepening of the democratic process, accelerating economic development, isolating foreign mercenaries, terrorists are playing a proactive role to neutralize them.

Interviews with senior officials revealed that the BADP are faced with the following problems:

1. There are serious delays in the movement of funds. Border areas, especially parts of Ladakh, receive funds very late. Sometimes it so happens that the funds are required during specific months of the season and due to late receipt of funds the purpose of the specific activity is defeated.
2. The programmes are not area specific. Even though each division has its own distinct geographical and demographic characteristics, the programmes are almost the same for all the border blocks. Hence the area specific needs are either neglected or are not fully taken care of.
3. The programmes are formulated without any clarity of concepts and methods, leading to serious problems in implementation.

However, views of a few other senior officials differed completely on these issues. They opined that the BADP is a very successful programme and has considerably improved the conditions of the people.

From the foregoing discussion, it emerges that while the government claims are optimistic, and on the exaggerated side, the truth will emerge only if an independent study on economic impact on Border Area Development Programme is undertaken on common people.

In the light of these programmes the following suggestions have been put forth to improve the conditions in the border areas:

1. The utilisation of funds for rural development schemes in the state should be increased. It is also necessary that adequate funds are provided for completion of on-going schemes. Only after the requirement of ongoing schemes is met in full, funds shall be earmarked for new schemes. There is also a need to accelerate the pace of the implementation of programmes.
2. Efforts are needed for the development of infrastructure, generation of employment and alleviation of poverty in rural areas to bring about the desired socio-economic development of Jammu and Kashmir. It is also essential that

the schemes proposed under selected sectors in order of priority are completed quickly and become available to the people living in the border villages.

3. There is no allocation under the head 'tourism'. In view of the current situation in respect of border with Pakistan, this is understandable. It is suggested that tourism may be encouraged in blocks like Nubra and Durbuk. If tourists can be permitted and encouraged in the Kinnaur district of Himachal which borders Tibet or Tawang district of Arunachal which borders China, why should tourism not be developed and promoted in the blocks mentioned above? This may be essential as tourism is employment oriented and will also boost the handicraft sector.
4. Ladakh Autonomous Hill Development Council has been playing an important role in guiding the masses as well as having a strong hold over their decisions and political choices. Therefore this council which can take care and satisfy the needs of the people should be given more powers.
5. A multi-pronged strategy is required to deal with problems of border areas which includes willingness to meet and discuss the legitimate grievances of the people, counter violence more effectively, and undertake activities for infrastructure development create employment opportunities, ensure good governance and effective decentralisation.
6. The issues regarding problems of displaced people in border areas due to artillery exchanges have to be seriously looked into.
7. There is a need for boosting the NGOs that can play a very important role in supplementing and complimenting efforts of the government in socio-economic development of the people in border areas. NGOs can be involved for socio-economic development and rehabilitation of the disadvantaged segment of society. A financial crunch should be no excuse for the disruption of social services being rendered by different NGOs.
8. There is an urgent need to undertake an impact assessment study of the schemes implemented by the government on the socio-economic conditions of the people. Such a study would help in assessing the ground realities about the schemes.
9. A rough guideline about the programme needs to be given to the implementing agencies so that they are aware of appropriate concepts and methods and their proper implementation takes place.
10. To tackle militancy in Jammu and Kashmir, the government has formulated a multi-pronged action plan regarding the activities of security forces and

intelligence agencies and related matters. The core elements and priorities of the strategy are:

- (a) Curbing infiltration
- (b) Countering militancy in the hinterland
- (c) Protection of minorities
- (d) Greater interaction with border population
- (e) Enhancing intelligence capabilities
- (f) Countering secessionists over ground base within Jammu and Kashmir
- (g) Greater functional integration through an institutional framework of operational and intelligence groups at each of the two unified headquarters in Jammu and Srinagar and at field levels.

Jammu and Kashmir at a Glance

District	Area (sq.km)	Population (2011)	Literacy Rate (% age) (2011)	No. of Villages	No. of Tehsils	No. of blocks	No. of Panchayats	Villages Electrified	Villages with drinking water
Anantnag	3981	1,170,013	11.10	615 (10 uninhabited)	5	10	300	626	626
Baramulla	4588	1,166,722	44.57	660 (646 Inhabited)	8	14	276	625*	646
Budgam	1371	503,768	30.51	106	3	6	100	175*	175
Doda	11691	690,474	46.42	655	7	14	262	588*	652
Jammu	3007	1,571,011	77.30	1192	5	11	205	1054	1054
Kargil	14036	115,227	58.21	120	2	7	65	103*	127
Kathua	2651	544,206	65.20	587	4	8	183	551*	553
Kupwara	2370	610,013	10.80	360	3	6	221	315*	365
Leh	45110	117,637	62.24	112	1	1	66	100*	112
Pulwama	1398	632,205	47.35	554	4	10	236	536*	536
Rambh	1671	371,561	51.07	178 (168 Inhabited)	3	5	115	167*	168
Rajouri	2830	178,505	57.65	381 (375 inhabited)	6	7	160	362*	375
Srinagar	2228	1,238,530	50.31	175 (7 uninhabited)	3	4	03	168	168
Udhampur	4550	738,065	54.16	624	5	12	215	585*	600
J&K	222236	10,000,017	54.46	6757	50	121	2700	6245*	6153

Source: Census of India 2011, & District Profiles as given in J&K Govt. official web site <http://jammukashmir.nic.in/> Directorate of Rural Development Jammu/Srinagar
* As per Digest of Statistics, 2011-2012.

Scheduled Tribes of Jammu & Kashmir

1. Bakarwal Pastoral Nomadic Community of Doda, Rajauri, Poonch and Parts of Udhampur
2. Balti Majority group among the Muslims of Ladakh, i.e., Leh and Kargil
3. Beda Partly sedentary and partly nomadic community of Ladakh. They inhabit cold desert regions at a high altitude which have a heavy snowfall
4. Bodh Also known as Ladakhi-Bodh, they live in the Zaskar and Nubra region
5. Broq-Pa Also called Shin, they inhabit the high hills of Ladakh
6. Champa / Changpa Also known as Fangpa and Phalpa (nomadic) the people have derived their name from the territory they inhabit, *chang* meaning north and *thang* meaning plains. Hence Champa/Changpa are the people of the northern plains of Ladakh.
7. Dokhpa Also known as Drokpa or Brokhpa, meaning people of the meadow, they are descendants of the Dards and have immigrated from Gilgit. They inhabit the villages of Da, Hanu, Darchik and Garkun on the banks of the river Indus.
8. Gara/Garba A majority of them live in the Leh and Kargil districts.
9. Gujjar Gujjars are distributed in Srinagar, Anantnag, Pulwama, Doda, Jammu and other districts. The Gujjar of this state are divided into two sections on the basis of their occupation – the Jamindar and Dodhi. The primary occupation of the Jamindar Gujjar is agriculture, supported by animal husbandry. The Dodhi Gujjar practise pastoral nomadism.
10. Mon They are musicians and flute players of the Ladakh region (mainly Ladakh and Kargil) and move in the company of the Beda. Most of the Ladakhi villages have one or two Mon households.
11. Purig-Pa The ancient name of the Kargil area of Jammu and Kashmir state is Purig or Purik. The inhabitants of Purig or Kargil mainly the area lying between Nameik-la in the east and Zoji-la in west, are known as Purig-pa, a term which has a territorial rather than an ethnic connotation.

Source: K.S. Singh, 'The Scheduled Tribes', People of India, National Series, Vol. III, Anthropological Survey of India, Oxford University Press, 2001, New Delhi.

Jammu & Kashmir – Projection of Population

Arithmetic Method:

Formula: $P_t = P_o (1+ 10_r)$

$$\begin{aligned}
 P_{1981} &= P_{1971} (1+10_r) \\
 5987389 &= 4616632 (1+10_r) \\
 5987389/ 4616632 &= (1+10_r) \\
 1.296917 &= 1+10_r \\
 (1.296917 - 1) 1/10 &= r \\
 0.296917 * 1/10 &= r \\
 \mathbf{0.029692} &= r
 \end{aligned}$$

For projection of population to 1991, 1971 has been used as the base to maintain linear growth as constant between 1971-1991. Nevertheless, we assume that population has linearly grown after 1981 with observed growth rate 'r'

$$\begin{aligned}
 P_{1991} &= P_{1981} (1+10_r) \\
 &= 5987389 * (1 + 10 * 0.029692) \\
 &= 5987389 * (1 + 0.296917) \\
 &= 5987389 * 1.296917 \\
 &= \mathbf{7,76,5147} \\
 P_{2001} &= P_{1981} (1+20_r) \\
 &= 5987389 * (1 + 20 * 0.029692) \\
 &= 5987389 * (1 + 0.59384) \\
 &= 5987389 * 1.59384 \\
 &= \mathbf{9,54,2940} \\
 P_{2015} &= P_{1981} (1+34_r) \\
 &= 5987389 * (1 + 34 * 0.029692) \\
 &= 5987389 * (1 + 1.009528) \\
 &= 5987389 * 2.009528 \\
 &= \mathbf{12,03,1825} \\
 P_{2025} &= P_{1981} (1+44_r) \\
 &= 5987389 * (1 + 44 * 0.029692) \\
 &= 5987389 * (1 + 1.306448) \\
 &= 5987389 * 2.306448 \\
 &= \mathbf{13,80,9601}
 \end{aligned}$$

Product-wise details of Industrial Unit

Annex-4

	1975-76			1976-77			1977-78			1978-79			1979-2000			2000-01		
	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.
Food Products	144	1063	14346.27	150	1036	13249.13	175	1162	4390.14	129	757	6246.51	137	954	13223.83	114	867	4619.99
Beverages	0	0	0.00	3	20	93.27	1	12	9.00	2	13	3.50	0	0	0.00	1	37	450.00
Textile & RMG	114	466	1251.57	155	403	317.87	157	593	246.53	161	814	901.68	176	498	772.88	91	453	665.85
Wood Products	142	561	746.42	137	560	1175.71	127	610	1171.83	94	665	1591.57	105	663	1356.24	26	165	931.73
Paper Products	30	139	676.31	32	156	251.27	58	260	197.57	41	177	720.07	32	142	144.49	35	202	266.60
Leather Products	25	84	102.03	38	118	101.42	54	205	139.98	35	115	21.47	56	205	235.10	20	99	289.07
Rubber & Plastic Products	10	70	170.22	10	111	259.10	22	111	112.03	12	159	1668.56	14	170	1175.01	7	61	431.80
Chemical Product	13	62	4676.41	21	119	916.20	18	103	113.22	28	161	1198.45	22	202	1738.61	21	166	554.92
Non-metallic Mineral Product	73	598	3217.63	74	573	2293.76	88	946	3156.97	48	614	2651.07	16	178	518.61	42	531	1731.65
Metal & Allied Product	127	521	1646.74	117	478	1520.65	164	712	1154.32	130	458	2292.88	70	301	1277.65	50	242	514.29
Basic metal Product	5	16	118.31	45	192	1104.23	14	236	242.00	56	232	814.27	212	421	951.98	64	342	5508.49
Transport Equipment	4	14	53.63	7	23	65.50	2	8	11.30	5	26	15.80	0	0	0.00	3	13	61.80
Machinery parts Except electrical	12	41	156.75	14	57	1667.45	15	107	144.34	2	8	7.40	17	49	28.50	5	34	175.00
Electric Machinery not Apparent	47	143	1970.71	48	168	698.87	41	203	112.42	67	261	604.13	74	279	1403.04	43	157	527.12
Repairing & Servicing	187	594	404.35	153	566	3694.7	194	516	347.27	166	502	334.83	163	541	422.85	137	464	446.14
Misc. Mfg.	104	364	144.58	143	721	1277.07	135	509	749.22	146	504	427.51	133	515	902.06	165	364	714.13

Source: Industrial Statistics, I&K, 2000-01.

District-wise and Craft-wise detailed list of Training Centres

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>	
Kupwara	Kupwara	8	Sozni, (2 centres) Stapple (2 centres), Chainstitch (3 centres), Carpet	
	Handwara	5	Stapple, Sozni (2 centres), Chainstitch, Calico	
	Karnah	4	Gabba, Wood Carving, Carpet, Stapple	
	Lolab	6	Carpet, Namdha, Sozni, Gabba, Crewel (2 centres)	
	Langate	5	Sozni (2 centres), Stapple (2 centres), Chainstitch	
	Baramula	Baramula	7	Crewel (2 centres), Gabba Embroidery, Sozni, (2 centres) Carpet, (2 centres)
		Tangmarg	10	Chain stitch, Sozni, (2 centres) Carpet (4 centres), Tapestry, Stapple. (2 centres)
		Sangrama	4	Papier mache, Chain stitch (2 centres), Tapestry
		Sopore	8	Crewel (2 centres), Tapestry (2 centres), Carpet (4 centres), Stapple
		Sonwari	7	Sozni, Chain stitch (2 centres), Papier mache, Carpet (5 centres)
Uri		11	Carpet (8 centres), Calico, Gabba, Crewel	
Pattan		6	Sozni, Stapple, Carpet, Kani shawl, Tapestry (2 centres)	
Rafi Abad		3	Crapet (2 centres), Crewel	
Bandipora		6	Sozni (2 centres), Wood Carving, Carpet (4 centres)	
Gurez		4	Gabba, Carpet (2 centres), Stapple	
Srinagar	Sonawar	17	Sozni (5 centres), Crewel (2 centres), Stapple (3 centres), Tapestry (4 centres), Namdha (2 centres) Zari	
	Zadibal	10	Sozni (2 centres), Crewel (2 centres), Papier mache (2 centres), Stapple, Gabba, Chain stitch, H.T.C	
	Eid-Gah	3	Stapple, Chainstitch, Calico	
	Khanyar	2	Crewel, Tapestry	
	Ganderbal	19	Sozni (4 centres), Crewel (3 centres), Stapple (4 centres), Tapestry (2 centres), Wood Carving, Namdha (2 centres), Leather (2 centres), Willow Wicker	
	Hazratbal	14	Sozni (3 centres), Stapple (4 centres), Papier mache (5 centres), Leather, Paper pulp	
	Batamaloo	14	Stapple (5 centres), Sozni (5 centres), Crewel (2 centres), Kani shawl, Tapestry	
	Amirakadal	2	Chain stitch, Toy & Doll	
	Habbakadal	2	Crewel, Tapestry	
	Kangan	10	Sozni, Crewel (2 centres), Stapple (4 centres), Chainstitch, Wood Carving, Meenakari	
Badgam	Badgam	15	Crewel (4 centres), Sozni (3 centres), Papier Mache, Tapestry, Carpet, Stapple, Chainstitch (3 centres)	
	Chadoora	25	C/ware (2 centres), Crewel (4 centres), Stapple (2 centres), Sozni(3 centres), Papier Machie (3 centres), Tapestry (2 centres), Chain stitch (2 centres), Zari (2 centres), Wood carving (4 centres), S/ware	
	Beerwah	19	Crewel (3 centres), Stapple (5 centres), Sozni (4 centres), Papier mache (2 centres), Wood carving, Kani shawls, Tapestry, Zari	
	Khansahib	3	Crewe, Stapple, Chain stitch	

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>
	Chari-I-sharief	12	Crewel (2 centres), Stapple (2 centres), Sozni (2 centres), Papier Mache (2 centres), Tapestry (3 centres), Wood Carving
Pulwama	Pulwama	7	Wood Carving (2 centres), Papier Mache (2 centres), Carpet (2 centres), Zari
	Pampore	4	Sozni, Stapple, Namdha, Gabba
	Shopian	3	Chainstitch, Stapple, Crewel
	Watchi	3	Sozni (2 centres), Crewel
	Rajpora	3	Stapple Crewel (2 centres)
	Tral	6	L/Stapple, Crewel, Sozni, Carpet (2 centres), Chainstitch
Anantnag	Phalagam	4	Gabba, Chainstitch, Carpet, Crewel
	Ananthnag	8	Sozni (4 centres), Zari, Tapestry, Chainstitch, Calico
	Doru	5	Crewel (3 centres), Carpet, Wood Carving
	Shangus	2	Gabba (2 centres)
	Noor Abad	2	Gabba, Sozni
	Dewsar	4	Gabba, Tapestry, Carpet, Crewel
	Bijbehara	7	Chain Stitch, Gabba, Wood Carving, Crewel (2 centres), Tapestry, Carpet
	Kulgam	3	Crewel, Namdha, Chain Stitch
	Kokernag	3	Gabba (2 centres), Tapestry
	Homashalibug	6	Crewel, Sozni (2 centres), Wood Carving, Stapple, Calico
Leh	Leh	15	Carpet (5 centres), L.G.M., Embroidery(2 centres), Clay, F. Painting, Wood Carving, Knitting, Papu shoe, Silver Filigree, Green Namdha
	Nobra	5	Carpet (3 centres), L.G.L, Wood Carving
Kargil	Kargil	12	Carpet (2 centres), Painting (2 centres), Hand knitting, Carpentry, Felt Namdha, Gabba Embroidery (2 centres), Papu shoe
	Zanskar	3	Carpet (2 centres), Carpentry
Doda	Doda	6	Crewel, Stapple (2 centres), Carpet, Sozni, Phoolkari
	Banihal	4	Stapple (2 centres), Sozni, Crewel
	Inderwal	2	Crewel (2 centres)
	Budervwah	8	Chamba, Crewel (5 centres), Sozni, Phoolkari
	Ramban	2	Phoolkari, Carpet
	Kishtwar	5	Crewel (2 centres), Wheat straw, Stapple, Sozni
Udhampur	Udhampur	7	Phoolkari (4 centres) Calico Printing, Carpet, Stapple
	Cheneni	3	Carpet, Stapple (2 centres)
	Reasi	5	Stapple (2 centres), Calico Printing, Phoolkari, Leather-cum-liquor
	Ramnagar	5	Phoolkari, (2 centres) Carpet (2 centres), Stapple
	Gool Arnas	2	Crewel (2 centres)
	Mahore	1	Stapple
Poonch	Haveli	8	Crewel (2 centres), Stapple (3 centres), Sozni, Phoolkaru, Chickriwood
	Mendher	8	Sozni (4 centres), Stapple, Carpet, Phoolkari(2 centres)
	Surankote	4	Crewel, Sozni, Stapple (2 centres)
Rajouri	Rajouri	9	Phoolkari, Stapple (2 centres), Sozni (2 centres), Chickriwood (2 centres), Crewel (2 centres)
	Kalakote	5	Leather/Stapple, Stapple (2 centres), Tilla, Sozni
	Darhal	3	Sozni, Phoolkari, Stapple
	Nowshera	6	Chamba, Stapple, Sozni (2 centres), Phoolkari, Carpet

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>
Jammu	Raipur Domana	5	Stapple, Phoolkari, L.C.L, N&P, Carpet
	Akhnoor	1	Carpet
	Samba	2	Handloom Weaving, Bamboo
	Nagrota	2	Stapple, Carpet
	Gandhinagar	5	Phoolkari (2 centres), Stapple (2 centres), Modern Art
	Jammu West	2	Phoolkari, Tailoring & Cutting
	R.S. Pura	2	L.C.L Craft, Calico printing
	Vijaypur	5	Chamba, Calico Printing (2 centres), Carpet weaving, Leather Embroidery
	Suchaitgarh	1	Phoolkari
	Bishnah	1	Stapple
	Chhamb	2	Leather Embroidery, Carpet
	Jammu east	1	Multicraft
	Marh	2	L.C.L Craft, Phoolkari
	Kathua	Kathua	6
Hiranagar		7	Phoolkari (2 centres), Calico Printing (3 centres), Bamboo, Carpet
Bani		2	Calico, Leather cum Liquor
Billowar		6	Chamba, Carpet (2 centres), Bamboo
Basholi		2	Bamboo, Leather zari embroidey
Jammu and Kashmir			

Source: Jammu & Kashmir Handicrafts (<http://www.jkhandicrafts.com>)

Jammu and Kashmir at a Glance

District	Area (sq.km)	Population (2011)	Literacy Rate (% age) (2011)	No. of Villages	No. of Tehsils	No. of blocks	No. of Panchayats	Villages Electrified	Villages with drinking water
Anantnag	3981	1,170,013	11.10	615 (10 uninhabited)	5	10	300	626	626
Baramulla	4588	1,166,722	44.57	660 (646 Inhabited)	8	14	276	625*	646
Budgam	1371	503,768	30.51	406	3	6	100	175*	175
Doda	11691	690,474	46.42	655	7	14	262	588*	652
Jammu	3007	1,571,011	77.30	1192	5	11	205	1054	1054
Kargil	14036	115,227	58.21	120	2	7	65	103*	127
Kathua	2651	544,206	65.20	587	4	8	183	551*	553
Kupwara	2370	610,013	10.80	360	3	6	221	315*	365
Leh	45110	117,637	62.24	112	1	1	66	100*	112
Pulwama	1398	632,205	47.35	554	4	10	236	536*	536
Rambhadr	1671	371,561	51.07	178 (168 Inhabited)	3	5	115	167*	168
Rajouri	2830	478,505	57.65	381 (375 inhabited)	6	7	160	362*	375
Srinagar	2228	1,238,530	50.31	175 (7 uninhabited)	3	4	03	168	168
Udhampur	4550	738,065	54.16	624	5	12	215	585*	600
J&K	222236	10,000,017	54.46	6757	50	121	2700	6245*	6153

Source: Census of India 2011, & District Profiles as given in J&K Govt. official web site <http://jammukashmir.nic.in/> Directorate of Rural Development Jammu/Srinagar
* As per Digest of Statistics, 2011-2012.

Scheduled Tribes of Jammu & Kashmir

1. Bakarwal Pastoral Nomadic Community of Doda, Rajauri, Poonch and Parts of Udhampur
2. Balti Majority group among the Muslims of Ladakh, i.e., Leh and Kargil
3. Beda Partly sedentary and partly nomadic community of Ladakh. They inhabit cold desert regions at a high altitude which have a heavy snowfall
4. Bodh Also known as Ladakhi-Bodh, they live in the Zaskar and Nubra region
5. Broq-Pa Also called Shin, they inhabit the high hills of Ladakh
6. Champa / Changpa Also known as Fangpa and Phalpa (nomadic) the people have derived their name from the territory they inhabit, *chang* meaning north and *thang* meaning plains. Hence Champa/Changpa are the people of the northern plains of Ladakh.
7. Dokhpa Also known as Drokpa or Brokhpa, meaning people of the meadow, they are descendants of the Dards and have immigrated from Gilgit. They inhabit the villages of Da, Hanu, Darchik and Garkun on the banks of the river Indus.
8. Gara/Garba A majority of them live in the Leh and Kargil districts.
9. Gujjar Gujjars are distributed in Srinagar, Anantnag, Pulwama, Doda, Jammu and other districts. The Gujjar of this state are divided into two sections on the basis of their occupation – the Jamindar and Dodhi. The primary occupation of the Jamindar Gujjar is agriculture, supported by animal husbandry. The Dodhi Gujjar practise pastoral nomadism.
10. Mon They are musicians and flute players of the Ladakh region (mainly Ladakh and Kargil) and move in the company of the Beda. Most of the Ladakhi villages have one or two Mon households.
11. Purig-Pa The ancient name of the Kargil area of Jammu and Kashmir state is Purig or Purik. The inhabitants of Purig or Kargil mainly the area lying between Nameik-la in the east and Zoji-la in west, are known as Purig-pa, a term which has a territorial rather than an ethnic connotation.

Source: K.S. Singh, 'The Scheduled Tribes', People of India, National Series, Vol. III, Anthropological Survey of India, Oxford University Press, 2001, New Delhi.

Jammu & Kashmir – Projection of Population

Arithmetic Method:

Formula: $P_t = P_o (1 + 10_r)$

$$\begin{aligned}
 P_{1981} &= P_{1971} (1+10_r) \\
 5987389 &= 4616632 (1+10_r) \\
 5987389/4616632 &= (1+10_r) \\
 1.296917 &= 1+10_r \\
 (1.296917 - 1) \ 1/10 &= r \\
 0.296917 * 1/10 &= r \\
 \mathbf{0.029692} &= r
 \end{aligned}$$

For projection of population to 1991, 1971 has been used as the base to maintain linear growth as constant between 1971-1991. Nevertheless, we assume that population has linearly grown after 1981 with observed growth rate 'r'

$$\begin{aligned}
 P_{1991} &= P_{1981} (1+10_r) \\
 &= 5987389 * (1 + 10 * 0.029692) \\
 &= 5987389 * (1 + 0.296917) \\
 &= 5987389 * 1.296917 \\
 &= \mathbf{7,76,5147} \\
 P_{2001} &= P_{1981} (1+20_r) \\
 &= 5987389 * (1 + 20 * 0.029692) \\
 &= 5987389 * (1 + 0.59384) \\
 &= 5987389 * 1.59384 \\
 &= \mathbf{9,54,2940} \\
 P_{2015} &= P_{1981} (1+34_r) \\
 &= 5987389 * (1 + 34 * 0.029692) \\
 &= 5987389 * (1 + 1.009528) \\
 &= 5987389 * 2.009528 \\
 &= \mathbf{12,03,1825} \\
 P_{2025} &= P_{1981} (1+44_r) \\
 &= 5987389 * (1 + 44 * 0.029692) \\
 &= 5987389 * (1 + 1.306448) \\
 &= 5987389 * 2.306448 \\
 &= \mathbf{13,80,9601}
 \end{aligned}$$

Product-wise details of Industrial Unit

Annex-4

	1975-76			1976-77			1977-78			1978-79			1979-2000			2000-01		
	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.	No.	Emp.	Prod.
Food Products	148	1063	14386.27	150	1036	13249.13	175	1162	4390.14	129	757	6288.51	137	954	13223.83	114	867	4619.98
Beverages	0	0	0.00	3	20	93.27	1	12	9.00	2	13	3.50	0	0	0.00	1	37	450.00
Textile & RMG	114	466	1251.57	155	403	317.87	157	593	246.53	161	814	901.68	176	498	772.88	91	453	665.85
Wood Products	142	561	746.42	137	500	1175.71	127	510	1171.83	94	665	1591.57	105	663	1356.24	26	165	931.73
Paper Products	30	139	676.31	32	156	251.27	58	260	197.57	41	177	720.07	32	142	140.49	35	202	266.60
Leather Products	25	84	102.03	38	118	101.42	54	205	139.98	35	115	21.47	56	205	235.10	20	99	289.07
Rubber & Plastic Products	10	70	170.22	10	111	259.10	22	111	112.03	12	159	1968.56	14	170	1175.01	7	61	431.80
Chemical Product	13	62	4876.41	21	119	910.20	18	103	113.22	28	161	1198.45	22	202	1798.61	21	166	554.92
Non-metallic Mineral Product	73	598	3217.63	74	573	2293.76	88	946	3156.97	48	814	2651.07	18	178	518.61	42	531	1731.65
Metal & Allied Product	127	521	1646.74	117	478	1520.65	164	712	1154.32	130	458	2292.88	70	301	1277.65	50	242	514.29
Basic metal Product	5	16	118.31	45	192	1104.23	14	236	282.00	56	232	814.27	212	421	951.98	64	342	5508.49
Transport Equipment	4	14	53.83	7	23	65.58	2	8	11.30	5	20	15.80	0	0	0.00	3	13	61.80
Machinery parts Except electrical	12	41	156.75	14	57	1667.45	15	107	144.34	2	8	7.40	17	49	28.50	5	34	175.00
Electric Machinery not Apparent	47	193	1970.71	48	168	898.87	41	203	112.42	67	201	609.13	74	279	1493.04	43	157	597.12
Repairing & Servicing	187	594	400.35	193	566	3699.7	194	566	397.27	166	502	334.83	163	541	422.85	137	468	496.49
Misc. Mfg.	104	368	844.58	143	721	1277.07	135	509	749.22	146	508	427.51	133	515	902.08	165	364	714.13

Source: Industrial Statistics, I&K, 2000-01.

District-wise and Craft-wise detailed list of Training Centres

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>	
Kupwara	Kupwara	8	Sozni, (2 centres) Stapple (2 centres), Chainstitch (3 centres), Carpet	
	Handwara	5	Stapple, Sozni (2 centres), Chainstitch, Calico	
	Karnah	4	Gabba, Wood Carving, Carpet, Stapple	
	Lolab	6	Carpet, Namdha, Sozni, Gabba, Crewel (2 centres)	
	Langate	5	Sozni (2 centres), Stapple (2 centres), Chainstitch	
	Baramula	Baramula	7	Crewel (2 centres), Gabba Embroidery, Sozni, (2 centres) Carpet, (2 centres)
		Tangmarg	10	Chain stitch, Sozni, (2 centres) Carpet (4 centres), Tapestry, Stapple. (2 centres)
		Sangrama	4	Papier mache, Chain stitch (2 centres), Tapestry
		Sopore	8	Crewel (2 centres), Tapestry (2 centres), Carpet (4 centres), Stapple
		Sonwari	7	Sozni, Chain stitch (2 centres), Papier mache, Carpet (5 centres)
Uri		11	Carpet (8 centres), Calico, Gabba, Crewel	
Pattan		6	Sozni, Stapple, Carpet, Kani shawl, Tapestry (2 centres)	
Rafi Abad		3	Crapet (2 centres), Crewel	
Bandipora		6	Sozni (2 centres), Wood Carving, Carpet (4 centres)	
Gurez		4	Gabba, Carpet (2 centres), Stapple	
Srinagar	Sonawar	17	Sozni (5 centres), Crewel (2 centres), Stapple (3 centres), Tapestry (4 centres), Namdha (2 centres) Zari	
	Zadibal	10	Sozni (2 centres), Crewel (2 centres), Papier mache (2 centres), Stapple, Gabba, Chain stitch, H.T.C	
	Eid-Gah	3	Stapple, Chainstitch, Calico	
	Khanyar	2	Crewel, Tapestry	
	Ganderbal	19	Sozni (4 centres), Crewel (3 centres), Stapple (4 centres), Tapestry (2 centres), Wood Carving, Namdha (2 centres), Leather (2 centres), Willow Wicker	
	Hazratbal	14	Sozni (3 centres), Stapple (4 centres), Papier mache (5 centres), Leather, Paper pulp	
	Batamaloo	14	Stapple (5 centres), Sozni (5 centres), Crewel (2 centres), Kani shawl, Tapestry	
	Amirakadal	2	Chain stitch, Toy & Doll	
	Habbakadal	2	Crewel, Tapestry	
	Kangan	10	Sozni, Crewel (2 centres), Stapple (4 centres), Chainstitch, Wood Carving, Meenakari	
Badgam	Badgam	15	Crewel (4 centres), Sozni (3 centres), Papier Mache, Tapestry, Carpet, Stapple, Chainstitch (3 centres)	
	Chadoora	25	C/ware (2 centres), Crewel (4 centres), Stapple (2 centres), Sozni(3 centres), Papier Machie (3 centres), Tapestry (2 centres), Chain stitch (2 centres), Zari (2 centres), Wood carving (4 centres), S/ware	
	Beerwah	19	Crewel (3 centres), Stapple (5 centres), Sozni (4 centres), Papier mache (2 centres), Wood carving, Kani shawls, Tapestry, Zari	
	Khansahib	3	Crewe, Stapple, Chain stitch	

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>
	Chari-I-sharief	12	Crewel (2 centres), Stapple (2 centres), Sozni (2 centres), Papier Mache (2 centres), Tapestry (3 centres), Wood Carving
Pulwama	Pulwama	7	Wood Carving (2 centres), Papier Mache (2 centres), Carpet (2 centres), Zari
	Pampore	4	Sozni, Stapple, Namdha, Gabba
	Shopian	3	Chainstitch, Stapple, Crewel
	Watchi	3	Sozni (2 centres), Crewel
	Rajpora	3	Stapple Crewel (2 centres)
	Tral	6	L/Stapple, Crewel, Sozni, Carpet (2 centres), Chainstitch
Anantnag	Phalagam	4	Gabba, Chainstitch, Carpet, Crewel
	Ananthnag	8	Sozni (4 centres), Zari, Tapestry, Chainstitch, Calico
	Doru	5	Crewel (3 centres), Carpet, Wood Carving
	Shangus	2	Gabba (2 centres)
	Noor Abad	2	Gabba, Sozni
	Dewsar	4	Gabba, Tapestry, Carpet, Crewel
	Bijbehara	7	Chain Stitch, Gabba, Wood Carving, Crewel (2 centres), Tapestry, Carpet
	Kulgam	3	Crewel, Namdha, Chain Stitch
	Kokernag	3	Gabba (2 centres), Tapestry
	Homashalibug	6	Crewel, Sozni (2 centres), Wood Carving, Stapple, Calico
Leh	Leh	15	Carpet (5 centres), L.G.M., Embroidery(2 centres), Clay, F. Painting, Wood Carving, Knitting, Papu shoe, Silver Filigree, Green Namdha
	Nobra	5	Carpet (3 centres), L.G.L, Wood Carving
Kargil	Kargil	12	Carpet (2 centres), Painting (2 centres), Hand knitting, Carpentry, Felt Namdha, Gabba Embroidery (2 centres), Papu shoe
	Zanskar	3	Carpet (2 centres), Carpentry
Doda	Doda	6	Crewel, Stapple (2 centres), Carpet, Sozni, Phoolkari
	Banihal	4	Stapple (2 centres), Sozni, Crewel
	Inderwal	2	Crewel (2 centres)
	Budervwah	8	Chamba, Crewel (5 centres), Sozni, Phoolkari
	Ramban	2	Phoolkari, Carpet
	Kishtwar	5	Crewel (2 centres), Wheat straw, Stapple, Sozni
Udhampur	Udhampur	7	Phoolkari (4 centres) Calico Printing, Carpet, Stapple
	Cheneni	3	Carpet, Stapple (2 centres)
	Reasi	5	Stapple (2 centres), Calico Printing, Phoolkari, Leather-cum-liquor
	Ramnagar	5	Phoolkari, (2 centres) Carpet (2 centres), Stapple
	Gool Armas	2	Crewel (2 centres)
	Mahore	1	Stapple
Poonch	Haveli	8	Crewel (2 centres), Stapple (3 centres), Sozni, Phoolkaru, Chickriwood
	Mendher	8	Sozni (4 centres), Stapple, Carpet, Phoolkari(2 centres)
	Surankote	4	Crewel, Sozni, Stapple (2 centres)
Rajouri	Rajouri	9	Phoolkari, Stapple (2 centres), Sozni (2 centres), Chickriwood (2 centres), Crewel (2 centres)
	Kalakote	5	Leather/Stapple, Stapple (2 centres), Tilla, Sozni
	Darhal	3	Sozni, Phoolkari, Stapple
	Nowshera	6	Chamba, Stapple, Sozni (2 centres), Phoolkari, Carpet

<i>Districts</i>	<i>Constituency</i>	<i>No. of Centres</i>	<i>Training of Crafts in each centre</i>
Jammu	Raipur Domana	5	Stapple, Phoolkari, L.C.L, N&P, Carpet
	Akhnoor	1	Carpet
	Samba	2	Handloom Weaving, Bamboo
	Nagrota	2	Stapple, Carpet
	Gandhinagar	5	Phoolkari (2 centres), Stapple (2 centres), Modern Art
	Jammu West	2	Phoolkari, Tailoring & Cutting
	R.S. Pura	2	L.C.L Craft, Calico printing
	Vijaypur	5	Chamba, Calico Printing (2 centres), Carpet weaving, Leather Embroidery
	Suchaitgarh	1	Phoolkari
	Bishnah	1	Stapple
	Chhamb	2	Leather Embroidery, Carpet
	Jammu east	1	Multicraft
	Marh	2	L.C.L Craft, Phoolkari
	Kathua	Kathua	6
Hiranagar		7	Phoolkari (2 centres), Calico Printing (3 centres), Bamboo, Carpet
Bani		2	Calico, Leather cum Liquor
Billowar		6	Chamba, Carpet (2 centres), Bamboo
Basholi		2	Bamboo, Leather zari embroidey
Jammu and Kashmir			

Source: Jammu & Kashmir Handicrafts (<http://www.jkhandicrafts.com>)

Abbreviations

AD	Allopathic Dispensaries
AIDS	Acquired Immuno Deficiency Syndrome
APCC	Apex Projects Clearance Committee
APDP	Accelerated Power Development Programme
APDRP	Accelerated Power Development and Reforms Programme
APEDA	Agricultural and Processed Food Products Export Development Authority
ASFR	Age Specific Fertility Rate
BADP	Border Area Development Programme
BOLT	Build-Operate-Lease-Transfer
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
BPL	Below Poverty Line
BR	Birth Rate
BRO	Border Roads Organisation
BSNL	Bharat Sanchar Nigam Limited
CAT	Civic Amenities in Town
CCDP	Capital City Development Programme
CD	Community Development
CDP	Community Development Programme
CEA	Central Electricity Authority
CEPC	Carpet Export Promotion Council
CFC	Common Facility Centre
CGWB	Central Ground Water Board
CHC	Community Health Centre
CIS	Capital Investment Subsidy
CRF	Central Road Fund
CSS	Centrally Sponsored Schemes
CT	Census Town
DBFOT	Design Build Finance Operate Transfer
DDHPY	Deen Dayal Hathkargarh Protsahan Yojana
DDP	Desert Development Programme
DIC	Directorate of Industries and Commerce
DIET	District Institute of Educational Training
DPAP	Drought-Prone Area Programme
DPDB	District Planning and Development Board
DR	Death Rate
DRDO	Defence Research and Development Organisation
DWCRA	Development of Women and Child in Rural Areas
DWCUA	Development of Women and Children of Urban Areas

EAS	Employment Assurance Scheme
EDI	Entrepreneur Development Institute
EPCH	Export Promotion Council for Handicrafts
ETS	Electronic Total Station
EWS	Economically Weaker Section
FALB	Financial assistance to Local Bodies
FFDA	Fish Farmers' Development Agency
FFW	Food for Work
GHS	Golden Handshake Scheme
GKY	Ganga Kalyan Yojana
GOI	Government of India
IADP	Intensive Agriculture Development Programme
IAP	Intensive Area Programme
IAY	Indira Awas Yojana
ICU	Intensive Care Unit
IDBI	Industrial Development Bank of India
IDMT	Integrated Development of Medium Towns
IDSMT	Integrated Development of Small and Medium Towns
IIDC	Industrial Infrastructure Development Centre
IMR	Infant Mortality Rate
IPCL	Indian Petro-Chemicals Limited
IRD	Integrated Rural Development
ISM	Indian System of Medicine
ISM	Indian System of Medicine
ITI	Industrial Training Institute
IUD	Intra Urine Device
JGSY	Jawahar Gram Samridhhi Yojana
JKLWWDA	Jammu & Kashmir Lakes and Waterways Development Authority
JKSRTC	Jammu and Kashmir State Road Transport Corporation
JKTDC	Jammu and Kashmir Tourism Development Corporation
JRCP	Jhelum River Conservation Plan
JRY	Jawahar Rozgar Yojana
LAN	Local Area Network
LCS	Low Cost Sanitation
LIG	Low Income Group
LoC	Line of Control
MDA	Market Development Assistance
MFAL	Marginal Farmers and Agricultural Labourers
MGD	Million Gallons per Day
MIG	Middle Income Group
MLA	Member of Legislative Assembly
MNP	Minimum Needs Programme
MP	Member of Parliament

MWS	Million Wells Scheme
NABARD	National Agriculture Bank for Rural Development
NAC	Notified Area Committee
NACO	National AIDS Control Organisation
NBCFDDC	National Backward Classes Finance and Development Corporation
NES	National Extension Service
NGO	Non-Governmental Organisation
NGR	Natural Growth Rate
NGS	Nutritional Garden Scheme
NHDC	National Handloom Development Corporation Ltd.
NHFDC	National Handicap Finance and Development Corporation
NHPC	National Hydro-Electric power Corporation
NMDFC	National Minorities Development and Finance Corporation
NNP	National Nutrition Policy
NNP	National Nutrition Policy
NORDD	Norwegian Agency for Interaction Development
NREP	National Rural Employment Programme
NSDP	National Slum Development Programme
NTP	New Telecom Policy
OECE	Overseas Economic Co-operation Fund
PDD	Power Development Department
PFC	Power Finance Corporation
PFC	Power Finance Corporation
PHC	Primary Health Centre
PHE	Public Health Engineering
PMGY	Prime Minister's Gramoday Yojana
PMRY	Prime Minister's Rozgar Yojana
PoK	Pakistan occupied Kashmir
PPS	Project Package Scheme
PRI	Panchayati Raj Institutions
PSU	Public Sector Undertaking
PWD	Public Works Department
R&B	Roads and Buildings
REC	Rural Electrification Corporation
RIDF	Rural Infrastructure Development Fund
RMK	Rashtriya Mahila Kosh
RRRF	Renewal and Restructuring Reserve Fund
SAIL	Steel Authority of India Ltd.
SASE	Snow and Avalanche Study Establishment
SC	Scheduled Caste
SCA	Special Central Assistance
SDA	Srinagar Development Authority
SDH	Sub-district Hospitals

SDP	State Domestic Product
SEB	State Electricity Board
SFC	State Finance Commission
SFDA	Small Farmers Development Agency
SGSY	Swarnajayanti Gram Swarozgar Yojana
SHG	Self Help Group
SIDBI	Small Industries Development Bank of India
SIL	Special Import License
SISI	Small Industries Service Institute
SITRA	Supply of Improved Toolkits for Rural Artisans
SJSRY	Swarn Jayanti Shahri Rozgar Yojana
SKIMS	Sher-I-Kashmir Institute of Medical Sciences
SKUAST	Sher-I- Kashmir University of Agriculture Sciences and Technology
SPS	Sisal Propagation Scheme
SPVT	Solar Photovoltaic Technology
SRTC	State Road Transport Corporation
SSA	Secondary Switching Areas
SSI	Small Scale Industries
ST	Scheduled Tribe
STEP	Support to Trainees and Employment Programme
STP	Software Technology Park
SWEP	Swayamsidha Women's Empowerment Programme
T&D	Transmission and Distribution
TAAI	Travel Agents Association of India
TB	Tuberculosis
TFR	Total Fertility Rate
TRYSEM	Training of Rural Youth in Self Employment
U5 MR	Under Five Mortality Rate
UA	Urban Agglomeration
UDAK	Urban Development Agency Kashmir
ULBs	Urban Local Bodies
USEP	Urban Self-Employment Programme
USHP	Upper Sindh Hydel Project
VAMBAY	Valmiki Ambedkar Awas Yojana
VLW	Village Level Workers
VPT	Village Public Telephones
VRS	Voluntary Retirement Scheme
WAL	Women's Alliances of Ladakh
WHO	World Health Organisation
WLL	Wireless in Local Loop
WTO	World Trade Organisation

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REFERENCES

BOOKS

- Bhasin Reena, 'Urban Poverty and Urbanization', Deep & Deep Publications Pvt. Ltd, New Delhi, 2001.
- Bhat, M.S, 'A study on Agricultural Taxation in Jammu and Kashmir with special reference to post-1947', New Delhi.
- Bose Ashish, 'India's Population Policy – Changing Paradigm', B.R. Publishing Corporation, Delhi, 1996.
- Ed. Richard G.A. Feachem, Tord Kjellstorm, Christopher J.L, Murray, Mead Over, Margaret A. Phillip, 'The health of Adults in the Developing World'.
- European Population Conference Proceedings, Vol. I, 23-26 March, 1993, Geneva, Switzerland.
- Ganguli B.N., 'Population and Development', S. Chand & Co (Pvt) Ltd, New Delhi, 1973.
- Gopalan Sarala, 'Towards equality – The Unfinished Agenda, Status of Women in India', 2001, National Commission for Women, Government of India.
- Gopalan, Sarala and Mira Shiva (eds), 'National Profile on Women, Health and Development', VHA, WHO, April 2000.
- Gupta, Santosh and Aman Gupta, Employment Opportunities in Jammu and Kashmir: a case study of Poultry Farm, New Delhi, 1992.
- Haq Khadija & Uner Kirdar (eds), 'Human Development, Adjustment & Growth', North-South Round Table, Islamabad, Pakistan, 1997.
- India: Towards Population and Development goals.
- Jammu & Kashmir 2001, Information Department publication, Government of Jammu and Kashmir.
- Nayak Sundeep K, Bashir Ahmed Dabla and Kurshid ul Islam, (eds), 'Gender Discrimination in the Kashmir Valley', Gyan Publishing House, New Delhi, 2000.
- Khan B.A, 'Economic consequences of Land and Kashmir State', unpublished Ph.D thesis, Deptt. of Economics, University of Kashmir, 1981.
- Ominde S.H & C.N. Ejiogu (eds), 'Population growth and Economic Development in Africa', Heinemann, London, 1972.
- Radhika, Ramasubban, Shireen J. Jejeebhoy (eds), 'Women's Reproductive Health in India', 2000.
- Ramana, D.V., 'Economics of Sericulture and Silk Industry in India', Deep and Deep Publication, New Delhi, 1987.
- Shah, A.M, 'Effective Management of Indian Industry', Anmol Publication Pvt. Ltd., New Delhi, 1995.
- 'Techno-Economic Survey of Jammu and Kashmir', National Council of Applied Economic Research, New Delhi, 1969.

ARTICLES AND JOURNALS

- Bhat, Tariq Ahmad, 'Houseboats offer a soothing experience in the Srinagar boulevard', *The Week*, 5 May, 2002.
- Chesti, M.A, 'Working Pattern of the Sheep Husbandry Department', Kashmir, 1986.
- Darzi, M.A, 'Efficacy of industrial Estates in Jammu and Kashmir', *The Business Review*:

- Journal of the faculty of Commerce and Management Studies, Vol. 8, Nos.1&2, March 2002, The University of Kashmir, Srinagar.
- Puri, Balraj, 'The Mosaic of Jammu and Kashmir', *Frontline*, 11 May, 2001 pp.111 – 112.
- Raj, K.N, 'Growth and Stagnation in Indian Industrial Development', Vol.XI, February 1976, New Delhi.
- Sharma, Naveen 'Private Entrepreneurs offered Sops to Aid Tourism in Jammu', *Express Travel & Tourism* (India Express Group) Issue dated 16 – 31 May, 2001.
- Wani, G.M, 'Animal Husbandry in Jammu and Kashmir', *Economic and Political Weekly*, August 1981.
- Wani, G.M, Working Paper on Reproduction in Goats under tropical Indian conditions, presented at SKUAST, Srinagar, 1986.
- Wani, G.M. and H.Geldermann, Establishment of a Breeding Programme for Livestock Development in Kashmir Valley., Presented at SKUAST, Srinagar, 1986.

GOVERNMENT REPORTS AND DOCUMENTS

- A brief note on Department of Technical Education, Government of Jammu and Kashmir.
- A handbook of Industrial Statistics, Jammu and Kashmir State, 2000-01, Directorate of Industries and Commerce, Planning and Statistical section.
- Agriculture Census, 1994-95, Government of Jammu and Kashmir.
- Annual Plan, 1999-2000, Planning and Development Department, Srinagar, Government of Jammu and Kashmir.
- Annual Report 1999-2000, Ministry of Health and Family Welfare, Government of India
- Annual Report on Educational Profile (School Stream), 2000-2001, Department of Education, Government of Jammu and Kashmir.
- Annual Report on the working of State Electricity Boards and Electricity Department, June 2001, Power and Energy Division, Planning Commission, Government of India.
- Annual Report, 1999-2000, Animal Husbandry Department, Jammu Division, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Animal Husbandry Department, Kashmir, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Animal Husbandry Department, Leh, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Department of Fisheries, Department of Horticulture, Kashmir Division, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Department of Fisheries, Department of Horticulture Marketing and Processing, Kashmir Division, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Department of Fisheries, Department of Sericulture, Kashmir Division, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Department of Fisheries, Jammu Division, Government of Jammu and Kashmir.
- Annual Report, 1999-2000, Department of Fisheries, Kashmir Division, Government of Jammu and Kashmir.
- Annual Report, 2000-01, Directorate of Agriculture, Jammu Division, Government of Jammu and Kashmir.
- Annual Report, 2000-01, Directorate of Agriculture, Kashmir Division, Government of Jammu and Kashmir.

Annual Report, PHE Department, Kashmir, 2001-02, Government of Jammu and Kashmir.

Annual Report, R&B Department Jammu, 2002, Government of Jammu and Kashmir.

Annual Report, R&B Department Kashmir, 2002, Government of Jammu and Kashmir.

Annual Report, R&B Department Leh, 2002, Government of Jammu and Kashmir.

Article 26, Universal Declaration of Human Rights.

Blue print for Power Sector Development, 2001, Ministry of Power, Government of India.

Brief Note on Plan proposal for centrally sponsored schemes prepared by Department of Education, Government of Jammu and Kashmir.

Census of India 1971, Vol. I, India Part II A (ii) Union Primary Census Abstract.

Census of India 1981, Series 8, Jammu & Kashmir Part II B, Primary Census Abstract.

Census of India 1981, Series 8, Jammu & Kashmir Part III A&B, Vol.I, General Economic Tables.

Census of India 1981, Series 8, Jammu & Kashmir, Part II A, General Population Tables.

Census of India 2001, Series 2, Jammu & Kashmir Provisional Population Totals, Paper – 1 of 2001.

Census of India 2001, Series 2, Jammu & Kashmir Provisional Population Totals, Paper-2 of 2001, Rural Urban Distribution of Population.

Craft: A Publication Devoted to Arts and Crafts of Jammu and Kashmir, Directorate of Handicrafts, Government of Jammu & Kashmir.

Digest of Statistics, 1999-2000 and 2000-01, Directorate of Economics and Statistics, Government of Jammu and Kashmir.

Draft Border Area Development Programme (Indo-China Border) for annual plan (2002-2003) and 10th Five-Year Plan (2002-07) in respect of Leh District.

Draft Ninth Five-Year Plan 1997-2002, Planning and Development Department, Government of Jammu and Kashmir.

Draft Tenth Five-Year Plan and Annual Plan 2002-2003, Planning and Development Department, Government of Jammu and Kashmir.

Economic Review, District Jammu, 1999-2000, Directorate of Economic and Statistics, Government of Jammu and Kashmir.

Economic Review, District Leh, 2000-01, Directorate of Economics and Statistics, Government of Jammu and Kashmir.

Economic Survey, Ministry of Finance, 2001-02, Government of India.

Economics of Pashmina Production in Ladakh, A project report submitted by SKUAST and University of Hohenheim, Srinagar, 1995.

Eighth Five-Year Plan, 1992-97, Planning and Development Department, Government of Jammu and Kashmir.

Health Information of India 1997 and 1998, Central Bureau of Health Intelligence.

Health Information of India, 1997 and 1998, Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India.

Human Development Report – Rajasthan: An Assessment in 1999 with a look into the future of India.

Human Development Report: A Profile of Indian States in the 1990s, NCAER, 1999, Oxford University Press, New Delhi.

Indicators of Economic Development Jammu and Kashmir, 1998-99, Directorate of Economics and Statistics, Government of Jammu and Kashmir.

Indicators of Economic Development, 1999-2000, Directorate of Economics and Statistics, Government of Jammu and Kashmir.

Ladakh Autonomous Hill Development Council Action Plan, BADP (Indo-Pak Border) 2002-2003, Government of Jammu and Kashmir.

National Family Health Survey (MCH) and family Planning, India, 1992-93, International Institute for Population Sciences, Bombay, August 1995

Ninth Five-Year Plan 1997-2002, Vol. II, Thematic Issues and Sectoral Programmes, Planning Commission, Government of India, New Delhi.

Profiles of Districts, October 2000, Centre for Monitoring Indian Economy, Mumbai.

Report of the Committee on Economic reforms for Jammu and Kashmir, Chaired by Madhav, August 1998.

Report of Women's Alliance of Ladakh, 2000, Government of Jammu and Kashmir.

Report of Women's State Development Corporation, 2000, Government of Jammu and Kashmir.

Report on Development Profile of District Leh, Government of Jammu and Kashmir.

Report on Health (Planning), Office of the Joint Director, Government of Jammu and Kashmir.

Report on Health Infrastructure, Leh, Office of the Chief Medical Officer, Government of Jammu and Kashmir.

Reports on the Ladakh Affairs, Secretariat, Government of Jammu and Kashmir.

South India Human development Report – NCAER, Oxford University Press, New Delhi.

Statistical Abstract of India, 1999, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

Student's Britannica, India, Volume 3.

The Madhya Pradesh Human development Report, 1995.

World Development Indicators, The World Bank, 1999, Washington, D.C

UNPUBLISHED SOURCES

Brief note on the Activities and Achievements of Handloom Development.

Brief note regarding activities of Handloom Development Department Leh.

Brief Write-up of Handicrafts Sector, Leh.

Handloom Industry: Vision 2020

J&K Tourism – Investment Opportunities for Tourism, Vision 2020, 20- 23 June 2002, Srinagar.

NEWSPAPER CLIPPINGS

'Handicraft Export to get major boost', *Kashmir Times*, Thursday, 23 May, 2002.

Acting CM visits various areas of Batamaloo, *Daily Excelsior*, 20 June, 2001.

Aditi Tandon, 'Wounded Valley – A Tribune Special: Beggars throng tourist spots', *The Tribune*, Chandigarh, Wednesday, 4 July, 2001.

Anand K. Sahay, 'Crowds back on roads in Valley', Inside Kashmir – IV, *The Hindustan Times*, Sunday, 4 August, 2002.

Anand K. Sahay, 'J&K is poor: Kashmiris find the idea amusing', Inside Kashmir-III, *The Hindustan Times*, Saturday, 3 August, 2002.

Anand K. Sahay, 'Life is better, but trauma continues', Inside Kashmir-V, *The Hindustan Times*, Monday, 5 August, 2002.

Anand K. Sahay, 'Militancy is no longer a big draw in the Valley', Inside Kashmir-VI, *The Hindustan Times*, Tuesday, 6 August, 2002.

Anand K. Sahay, 'People want to vote but suspect rigging', Inside Kashmir – VII, *The Hindustan Times*, Wednesday, 7 August, 2002.

Anand K. Sahay, 'Refrain in Valley: All said and done, India is a democracy', Inside Kashmir-II, *The Hindustan Times*, Friday, 2 August, 2002.

Anand K. Sahay, 'World Watches J&K polls with interests at stake', Inside Kashmir – I, *The Hindustan Times*, Thursday, 1 August, 2002.

Drink Cola, not water, Editorial, *Daily Excelsior*.

New Export Package mooted for J &K, *Business Line*, Wednesday, 21 February, 2001.

SASE expertise can boost J&K tourism, *The Tribune*, Monday, 22 February, 1999.

Shah underscores importance of safe disposal of Municipal Wastes, *Daily Excelsior*, Friday, 9 November, 2001.

Sharing of Ravi Water to be taken up with Punjab: Sagar, Legislative Assembly Proceedings, *Daily Excelsior*, Tuesday, 19 March, 2002.

The Kashmir Times, 10 April 2002.

WEBLIOGRAPHY

Industry on fast revival in J&K, *Newsline*, Srinagar, 18 September, 2001 <http://jammukashmir.nic.in>

Status of J&K Carpet Industry in the World Market Carpet export touches Rs.292 C. *Newsline*, Srinagar, 28 July, 2001 <http://jammukashmir.nic.in>

Under SJSRY 81 works completed and 1219 candidates imparted training in different crafts, *Newsline*, Srinagar, 31 July, 2001 <http://jammukashmir.nic.in>

Tariq A. Rather, 'J&K Handicrafts: Ingrained in Socio-Economic Ethos of India', Press Information Bureau, Government of India, <http://pib.nic.in/feature/fe0599/fl205991.html>

Jammu & Kashmir Handicrafts, <http://www.jkhandicrafts.com>

Measures underway to boost handicraft, expert Sample showrooms being opened shortly, *Newsline*, Jammu, 18 July, 2001, <http://jammukashmir.nic.in>

Imperial Kani Shawl reviving fast: Kamaal, Centre provides Rs.13 lakh assistance for promotion of Jamawar, *Newsline*, Jammu, 27 July, 2001 <http://jammukashmir.nic.in>

Government keen to hold elections of local bodies: Shah, *Newsline*, Jammu, 10 July, 2001 <http://jammukashmir.nic.in>

Shah for creating a land bank under new master plan, *Newsline*, Jammu, 09, 2001, <http://jammukashmir.nic.in>

Shah for privatization of housing sector, *Newsline*, Srinagar, 20 August, 2001 <http://jammukashmir.nic.in>

10 tube-wells installed in Jammu, 18 under progress, *Newsline*, Srinagar, 20 August, 2001, <http://jammukashmir.nic.in>

Lea Terhune, 'Kashmir violence Takes Heavy Toll on Nature', Srinagar, 16 July, 2001. <http://ABCNEWS.com>

J&K bags award for tourism promotion, *Newsline*, Srinagar, 19 September, 2001. <http://jammukashmir.nic.in>

Jammu & Kashmir Telecom Circle, <http://www.dotindia.com/jnk>

Airports Authority of India, <http://civilaviation.nic.in/aai/airport.htm>

Investments in Jammu & Kashmir, <http://www.indiansources.com/jksidco.htm>

Ashraf Syed Firdaus, "A tourist paradise in the shadow of the gun", The Rediff Special.