



GOVT. OF KARNATAKA

VOCATIONAL
SURVEY REPORT
OF
BELGAUM DIST.

DEPARTMENT OF
VOCATIONAL EDUCATION
KARNATAKA

1978

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MAP OF BELGAUM DISTRICT



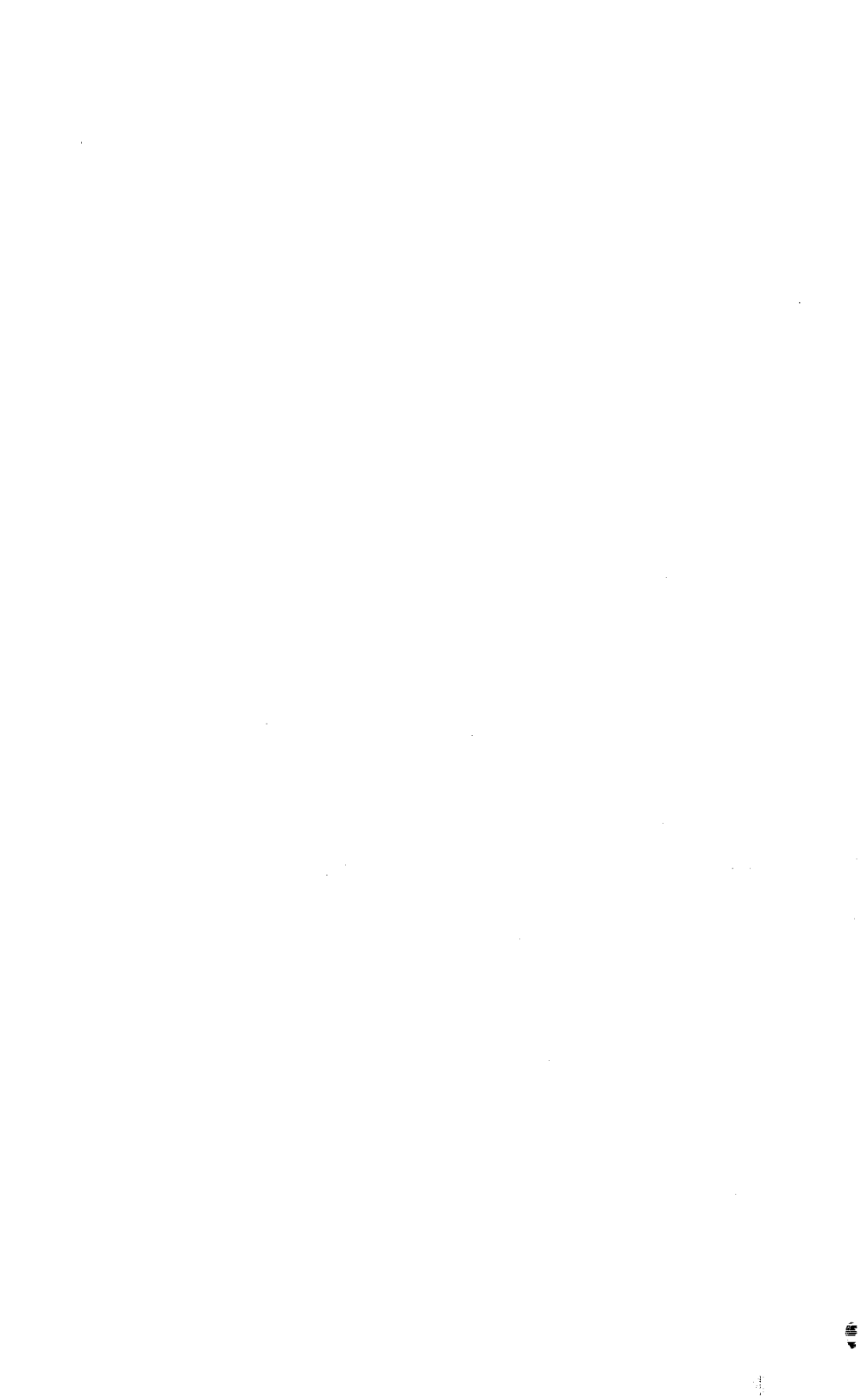
M E S S A G E

“Change the system of Education”—is the talk of the day
But how?

Several attempts have been made in the past without much success. The Education Commission (1964-66) has recommended greater diversification of vocational courses at the Higher Secondary level. They have pointed out that training should cover not only people who seek employment but also those who are or may be interested in self-employment. Experimentation was going on from 1973 onwards at the N.C.E.R.T., Delhi in the implementation of Vocationalisation of Education. The Pilot project on vocationalisation, was taken up in Karnataka during 1977-78 in some selected schools of Bangalore, South Kanara and Dharwar, on an experimental basis. Dr. Malcom Adiseshaiah Committee set up by the Union Education Ministry to recommend a plan of action for Vocationalisation of education at the secondary and higher secondary stages, is in closed agreement with the plan of the action of the pilot project undertaken in Karnataka.

Whatever may be the plan or pattern, the education offered in the Schools should enable the students—particularly of the lower strata, “to stand on their own legs”. For this, it should be based on the needs and requirements of our changing society and the infrastructural facilities available in the locality. The vocational survey, presenting a board overview of all the aspects of the District with a projection into the future and with suggestions about new courses based on the employment potential, can contribute a great deal for planning on realistic lines.

B. Subbaya Shetty
Minister for Education



F O R E W O R D

The growing problem of the educated unemployed has been examined by various commissions and Governments of India and Karnataka at different times. It is only recently that the Govt. of India recommended a comprehensive scheme with financial support for tackling it. The scheme is based on one of the main recommendations of the Education Commission (1964-66) that about 50% of the enrolment beyond class X should be in part-time or full-time vocational courses affording opportunities of employment or self-employment in various vocations.

The Education Commission envisaged development of skills at the higher secondary stage to provide middle-level supervisory and technician man-power. The role of the technician and middle-level supervisor is beginning to be understood in India only recently in respect of both their numbers and depth of skills to be built in each of them. It is, therefore, felt that instead of general education alone, vocational education must be introduced in as many Institutions as possible for providing trained personnel, with the required skills in areas where employment potential exists or is likely to develop in the very near future. Also self reliance should be inculcated wherever possible.

For this purpose, District Vocational Surveys have been undertaken to estimate the employment potential likely to develop in the District and to suggest new Job-oriented courses for introduction in selected institutions to achieve the best possible result in an economical way. The Handbook on Vocational Survey of Belgaum District, compiled by Sri. A. Ramakrishna Rao, Deputy Director of Vocational Education, Dharwad presents the major areas of economic activity in the District supported by relevant statistical data.

Also Employment potential has been indicated with a projection into the future wherever possible. New courses have therefore, been suggested based on the employment potential in the District. It is on this basis that the data contained in the handbook has been used in predicting new areas and implementig the 'Job-oriented Diploma courses' in Belgaum District to answer the felt needs of the society in its economic activity.

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VOCATIONAL SURVEY OF BELGAUM DISTRICT

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VOCATIONAL SURVEY OF BELGAUM DISTRICT

I. INTRODUCTION

The Adisheshaiah Committee has recommended that vocational courses at the higher secondary stage (plus 2) should prepare students for self-employment or enhance their employability in agriculture, business, paramedical, education and general services. The committee wants that students taking the general education courses at the plus two stage to be engaged in "socially useful productive work" for 15 percent of their time during the working week. This is described as meaningful manual work resulting in goods or services for the community. Students taking the vocationalised 'spectrum' should spend 15 percent of the work week on "general foundation courses" which provide them a broad background area of knowledge of life and history and enable them to set up their own establishments. Under the Committee's scheme, 70 percent of the time is spent on 'electives' by the general education students and on any one of a wide range of agricultural, business, and office management, paramedical and other general services by vocationalised education students. The study of one language-15 percent of the time in the work week-is common to students of both general education and vocationalised education courses.

To achieve this goal, as far as possible, the new scheme of education and training should be linked to the needs of the community where the students are born or alive and should be offered in the schools which are not far away from their houses,

especially in the rural situations. The community would also benefit from such a scheme as their skills needs are locally met. To identify the vocational needs of a geographical area, and to prepare an appropriate scheme of education and training, it is necessary to conduct a vocational survey of that area. The convenient geographical unit for various regions could be, a revenue district.

II. VOCATIONAL SURVEY

Vocational survey is one of the methods devised to determine the current available occupational skills and approximate requirements of skills in the foreseeable future, say 5-10 years from now. It has the merit of directly collecting the needed data from the industries, commercial organisations, agricultural farmer, health units, and educational institutions, instead of projecting the man-power needs on the basis of assured growth rate targets. This type of survey is very appropriate for our purpose.

In view of the fact that middle level personnel have limited mobility, the educational and training facilities have to be planned to assist the youth of the geographical area to convert the existing and emergent situation into gainful opportunities. A more important merit of this simplified method of survey is the speed with which it can be done to identify the occupational needs and take urgent step to design suitable courses.

III. BOARD OBJECTIVES OF THE SURVEY

- a) To explore the employment market in the district under the control of the State and Central Governments and private agencies to ascertain the shortfall if any, in the qualified and skilled personnel in the various occupational fields.
- b) To identify the emerging industrial and commercial development plans and to assess the employment

opportunities during the next 10 years for the trained personnel in specific vocations.

- c) To identify the occupations which offer reasonably good prospects of employment.
- d) To assess the capabilities of the schools or colleges to institute the new vocational courses with minimum financial outlay and to identify courses which can be introduced in each of them.
- e) To recommend to the State Government the types of courses that can be started immediately, the administrative adjustments required and measures to be undertaken before courses are started.
- f) Miscellaneous issues which can be highlighted so as to help the state in the implementation of the scheme successfully.

IV. DATA COLLECTION

Keeping in view the time interval (3 to 4 months) and the limited staff sanctioned for carrying out the survey, Govt. of India recommended a set of sample schedules and statements prepared by the Vocational Education Unit of N.C.E.R.T., New Delhi, for collection of data in the Districts. A close examination of the four schedules and thirty four statements provided by N.C.E.R.T. reveal the following.

1. The statements from 1 to 34 of the Survey Form can be completed on the basis of the information available in the different departments in the District.

2. Schedule 4 i.e. "Survey of Occupational needs of Plan Schemes" also can be completed with the assistance of the Head of different departments in the District.

3. Schedule 3 i.e. "Study of the emerging occupations and areas of self-employment", and Schedule 2 i.e. "A, Survey of the Prospective Establishments", call for a projection into the future on the basis of available data. If an attempt is made to collect such opinion from all the establishments in the district, it may suffer from the limitations of being narrow and restricted to small units. A better approach to minimise the subjective elements involved in this process, is to conduct a **sample survey** involving the following subjects.

- a) The Heads of different Departments - to give their opinion in their fields on the basis of available statistical data.
- b) Recognised organisations such as societies, unions etc. - to be requested to give their mature opinion in the background of their experience about the locality.
- c) A few major establishments to be contacted on selective basis.

Consideration of these data may give a wider and more realistic perspective of the future.

4. Schedule 1 i. e. "A Survey of the Current Non-farm establishments", is too ambitious; because "Non-farm establishments" in Belgaum District are so varied and too many that an attempt to conduct a census of all of them through a questionnaire, will be impracticable in view of our limited resources. Therefore, attempts are made to complete the same on the basis of the following.

- a) The statistical data collected from different Departments.

b) The report of the economic census of non-farm establishments compiled by the Statistical Departments during November 1977.

c) Projects reports of Small-scale Industries.

Even then, Schedule I may not be completed in all aspects; but will serve our purpose of estimating employment potential in Belgaum District.

V. METHODOLOGY

Sri Y. K. Puttasome Gowda, Deputy Commissioner, Belgaum extended full cooperation and addressed a letter to the District Heads requesting them to provide all the data for survey work. As per guidelines provided by Prof. E. S. Gurubasappa, Director of Vocational Education, Bangalore, Sri A. Ramakrishna Rao, Deputy Director of Vocational Education, Dharwad & Belgaum Dists. approached the Dist. Heads and other knowledgeable persons for the collection of data.

The data thus collected can be divided into two groups Primary data and Secondary data. The secondary data consists of the various reports and documents of plans, progress, and achievements already available in the Dist. with various agencies such as Dist. Development Plans, Lead Bank Surveys, Educational Surveys, Small Scale Industries Surveys, Census Reports, Area Skill Surveys etc. The first step was to collect such reports and complete the Statements of the Survey forms provided by Government of India.

The second step consisted of collecting primary data through field work. The questionnaires were sent by post to various agencies such as agricultural organisations, labour and employment exchanges Dept. of Ind. & Comm., hospitals,

ednl. institutions, etc. The addresses available in the telephone directory of Belgaum Dist. were used for mailing the questionnaires. But unfortunately, the responses to such questionnaires were very poor. The data furnished by the limited respondents did not lend themselves to any type of useful analysis and interpretation. The main reasons, among others, may be the following :-

- a) The questionnaire is too lengthy and too general to evoke immediate responses on the part of the respondents;
- b) The issues covered a wide range of topics and filling up the questionnaire was time-consuming and laborious. Thus, mailing questionnaires to the different agencies may perhaps served the purpose of giving publicity and educating the public about the new scheme of vocationalisation of education.

Discussions with knowledgeable individuals and interviewing the Departmental Heads and important Employers helped a lot in collecting primary data. The persons selected for discussions were local officers, village heads, progressive farmers, proprietors of business concerns, agricultural extension officers, bank managers, heads of educational institutions, and departmental heads. The main purpose of conducting discussions and interviews is to get reliable information about the existing situation in various fields of employment and developmental activities. Being concerned with the local needs and activities, these individuals provided very valuable information from which necessary conclusions were drawn for suggesting 'Job-oriented Pre-University Diploma courses'.

In the discussions with the industrialists, agriculturists and departmental heads. it was possible to collect much

information regarding the future developments which are more or less certain to take place during the next five to six years. It was also possible to elicit information regarding the qualifications and competencies they expect from the new recruits as and when they employ. Their co-operation for assisting the institutions to provide 'On the Job' training and also experts to impart skill training on part-time basis, was also requested. Particular care was taken to assess the capabilities of small and cottage industries employing 20-50 persons for future employment.

The selection of educational institutions depended upon several criteria. The schools should be so located that it has got reasonable possibilities of good enrolment, say about 200 at class XI of whom about 100 may join vocational streams. The school should have adequate building place, libraries, laboratories and if possible some workshops. The financial stability of these institutions was also taken into consideration. The staff of the institution must possess adequate qualifications, to teach at the XI and XII standards at least languages and general subjects, if not vocational subjects.

The school should have the support of the community in the area to provide 'on the job' training during the course and also to requisitions experts from the local organisations. If, in addition, the school itself is in a position to develop workshops and laboratories it would be excellent. It should be possible for the schools to have close relationships with industries, commercial organisation and health departments in designing vocational courses so that their involvement works as a morale boosting factor in the implementation of the scheme.

VI FINDINGS OF THE SURVEY

I. Belgaum District

Belgaum is the fifth largest district in Karnataka, with an area of 13,46,386 Hectares which is about 7 percent of the total geographical area of the State. The district is located to the north-west of Karnataka, between latitude 15° 22'' and 16° 53'' north and longitude 74° 20'' and 74° 25'' east, above the sea level between 1824' to 2723'. It is surrounded by Goa and a part of Kolhapur district (Maharashtra state) in the west, Dharwar and North Kanara districts in the south, Bijapur district in the east and again a part of Maharashtra (Kollapur Dist.) in the north. Belgaum city is the headquarters of the district. The district is sub-divided into 10 blocks (taluks) viz. Athani, Bailhongal (Sampgaon), Belgaum, Chikodi, Gokak, Hukeri, Khanapur, Raibag, Ramdurg and Soundatti (Parasagad)

2. Topography and Sub-Regions

The district can be divided into the following three sub-regions on the basis of the prevailing physio-geographical conditions.

a) The Marshland (Malnad)

The Malnad region comprises of Belgaum, Khanpur, and western parts of Bailhongal blocks. A large part of Khanpur block and certain portions of Belgaum block are under forests. The annual rainfall received in these parts is between 1000mm to 1675mm. Three important rivers viz. the Malaprabha, the Markandaya and the Hiranyakeshi flow through this region, besides a number of small streams and rivulets. The soil varies from loam to red laterities and is well drained. Agriculture is the mainstay of the people. Paddy is the main crop, which is mainly rainfed. The other important crops are sugarcane, ragi,

jowar (kharif), vegetables and fruits. A considerable proportion of population is engaged in manufacturing industries, commercial and other allied activities in centres like Belgaum and Khanpur.

b) Transitional tract (Gadinad)

This region consists of the eastern parts of Bailhongal, Hukeri and Chikodi blocks and the western parts of Gokak and Raibag blocks. These parts are mostly subterranean plain tracts which receive a rainfall of 655 mm. to 1000mm. annually. The soil is of medium black type which is well drained.

Major rivers like the Ghataprabha, the Malaprabha and the Krishna flow through this region. A dam across river Ghataprabha is under completion to provide irrigation facilities. The crops are mainly rainfed. A large number of irrigation wells also exist in the region. The major crops which are grown are Jowar (kharif), groundnut, cotton, sugarcane, chillies and tobacco.

c) Dry Region (Yarinad)

The dry region comprises of Athani, Ramdurg and Soundatti blocks and the eastern parts of Gokak and Raibag blocks. These are mostly low lying flat lands, which receive an annual rain fall of less than 625 mm. The Malaprabha, the Ghataprabha and the Krishna rivers flow through the region. The region is benefited by the major and medium irrigation projects like the Ghataprabha, the Malaprabha and the Kolchi Weir. The soils range from medium black to deep black with lime nodules and scattered alkaline patches throughout the area. The principal crops of the region are jowar (Rabi) wheat, gram, groundnut and cotton. Due to erratic weather conditions and

scanty rainfall, the region has been declared as drought prone. However, majority of the population is dependent on agriculture for their livelihood.

The dry region is under-developed mainly due to lack of irrigational facilities, though the land is very fertile. The Malnad is also not well developed inspite of possessing rich forest resources. Perhaps the transitional tract is better developed among all the three regions, which may be due to assured rainfall, irrigational facilities and the concentration of industries.

3. Climate and rainfall

The climatic conditions vary widely from region to region. Khanpur block at one end of the district is covered with dense forests, where the temperature is low. Athani block at the other end has barren dry lands. low rainfall and arid climate. The areas in the transitional belt are comparatively hotter. Extreme climatic conditions prevail in Maidan area, which is usually hot and dry most of the year.

The district receives an average annual rainfall of 785 mm. as against 1315mm. for the state. It gets about 70 percent of the rain fall during the South western monsoon period (June to September), which is called the Khariff season. The Rabi season starts with the onset of the north-eastern monsoon (October to December) which is of great importance for agriculturists in the eastern part of the District.

4. Human resources

The population, according to 1971 census is 2423342 with a density of 181 per sq. km. It has recorded an increase of 22.16% over the 1961 census figures of 19,83,811 (Statement 2).

The percentage of literacy in the district is 30.7 which is slightly lower than the state average of 31.5. With the introduction of compulsory primary education, the district has made vast strides in the enrolment of children in the age group of 6 - 10 years. The percentage of children in the school going age group who have been enrolled in the District is 98% (approximately).

The rural population is about 79.4% and among them about 47% are cultivators as against the state figures of 40%. A high proportion of (about 73 percent) the working population is engaged in agriculture alone; and this indicates the fact that majority of the rural population are either unemployed or underemployed. More than 65 % of the people in the agricultural sector are assured to be very poor, which is a major contributing factor to the district's income. The proportion of workers in the secondary sector is most insignificant at only 2 percent, though contributes about 12 percent of the total district income. The industrial employment opportunities in the district are somewhat limited with a concentration of workers in textiles, general engineering, wood based and other manufacturing industries, most of which are located in Belgaum city, and a few other block places of the district (Details in Annexure I Statements 1-7).

The position of unemployment as per the live register of the District Employment Exchange is indicated in Statements 25, 26 & 27 of Annexure I. The proportion of technically qualified and skilled persons is much lower while compared to other ranks. The employment trend is comparatively large in Services and Manufacturing (St. 25). Unemployment seems to be widely spread among persons having general education (St. 26). The persistent shortage categories are SC/ST candidates in community and social services and Business services. (Statement 27)

5. Transport and Communication

Railway and roads are the chief means of transport in Belgaum District. The District has got the credit of having an Airstrip also at Sambra, 7 miles away from the city.

Railways : The total railways in the District is 217 Kms. Following are the important Railway stations : Shedbal, Ugar (K). Kudachi; Raibag Road; Chikodi Road; Ghataprabha; Gokak; Pachapur; Khanapur; and Londa. Shedbal is the last railway station in this District towards Maharashtra boundary which is about 15 miles from miraj. In the same way Londa is the junction from where the line for Goa separates. Londa being nearer to Goa and Dharwar District border, has assumed much importance.

Roads : The total length of all weather roads in the Dist. is 2929 Km which constitutes about 207 Kms of national highways, 339 Kms of state highways and 943 Kms of major district roads (Statement 28). Out of 1158 vilages in the district, about 52 percent are connected by all weather metalled roads. About 18 percent of the total villages in the district are yet to be directly connected by roads. The total number of Registered Auto Vehicles is 17,738 as on 31-3-77 which gives an idea of vehicular traffic in the District.

Post and Telecommunication : The communication and transport services are fairly developed in the District. There are in all, 640 post offices; 181 telegraph offices and 5635 telephone connections. The number of radios in use is 123934 as on 31-3-77.

6. Agriculture

The basic structure of the economy of Belgaum district is essentially agrarian. About 75 percent of the working

population is engaged in agriculture. The statistical details of land utilisation is in statement 8. About 68 percent of the total geographical area is under cultivation. A substantial portion of the area is under forests. Of the total not sown area, a low proportion of about 12 percent has assured irrigation facilities where double cropping is in practice.

Land holdings on large scale is very limited, in the District Majority of them come under 1 to 4 Hectares (Statement 9)

The main food crops cultivated in the District are jowar, bajra, wheat, paddy and maize. The chief cash crops are groundnut, cotton, sugarcane, maize and tobacco (Statement 10). The tobacco produced in this district, especially the 'Nippani type' is known for its quality. Jowar occupies the largest area under the single food crop with 203327 hectares which is about 22 percent of the total cultivated area. Groundnut is the important cash crops with 126728 hectares under cultivation which is about 14 percent. In the order of importance, cotton sugarcane and tobacco get the next places. According to a technical report prepared in 1969 on maximising agricultural production in the district, jowar and tobacco were classified as crops grown in large areas, but with low productivity ratios. The district has made appreciable progress in the production of sugarcane and with the help of improved agricultural techniques and irrigation facilities, it has been possible to bring more areas under a sugarcane cultivation, and make it a major commercial crop of the district. There has been considerable progress in agricultural development in the last few years in the dist. especially after the introduction of the high yielding variety of crops. The three factors which have contributed significantly in increasing the agricultural production are: 1) the growing of high yielding varieties of crops ii) the use of chemical fertilisers and iii) the extension of irrigation facilities. (Statement 11, 12 & 13).

2. Irrigation :

Wells are the major source of irrigation in the district. There are about 58244 irrigation wells, with a heavy concentration in Athani, Chikodi and Hukeri blocks. Canals are the next important source which provide irrigation facilities for about 33 percent of the total irrigated area. Tanks are also an important source of irrigation and there is a concentration of them in Khanpur Belgaum and Bailhongal blocks (Statement 13 & 14).

Though there are a number of irrigation wells and tanks spread over different parts of the district, a major portion of the crops are raised under rainfed conditions. The well and tank irrigation just supplement the rains in growing cash crops.

The Ghataprabha left Bank canal is the only important source of irrigation in the district. A substantial acreage would receive the benefits of irrigation after the completion of Malaprabha Project mainly in Dharwar and Bijapur districts.

3. Horticulture :

Horticulture also has made considerable impact on the district; particularly in Belgaum block. Mango, banana, sapota, papaya, citrus, guava and pineapple are some of the important fruit crops. Among the vegetable crops, potato, sweet potato, chillies, onions, tomato, and brinjals figure prominently. Farmers in Athani and Chikodi blocks were encouraged to take up grape cultivation under the Agricultural Refinance scheme 1971-72. Some of the schemes taken up for horticulture development in the recent years are: i) extension of area under horticultural crops; ii) cashew development; iii) plant protection measures; iv) pepper development; v) fruit development and vi) coconut cultivation to name a few.

4. Sericulture

Sericulture, which hitherto remained untried, has vast scope in the district and it is found that, the soil and climatic conditions are suited perhaps even better than the traditional silk producing areas in the state. Several programmes have been launched and facilities afforded by the Department of Sericulture especially in the D. P. A. P. blocks to augment silk production like

- i) free supply of mulberry cuttings ;
- ii) free supply of D.F. layings,
- iii) technical guidance ;
- iv) purchase of quality cocoons ;
- v) reeling of cocoons and return of silk obtained ;
- vi) free training facilities to sericulturists and
- vii) financial assistance in the form of subsidy and loans for construction of reeling houses and maintenance of mulberry gardens.

5. Live Stock

Animal husbandary is the third largest contributor accounting to about 11 percent of the district's income. The category-wise livestock population is given in statement 15. A number of schemes have been initiated in the district for the development of dairy and poultry. During the Vth Five Year Plan, the following programmes for the development of animal husbandary in the district have been taken up—i) fodder development ; ii) cattle development ; iii) special schemes in D. P. A. P. blocks and general schemes in other blocks like sheep rearing and piggery development.

As the district has sizeable number of cattle population, there is scope for developing dairy products and prospects for the development of tanning industry.

6. Fisheries

The district is ideally suited for the development of inland fisheries with a fair length of river systems and a large number of major and minor tanks and reservoirs. (Statement 17). But the opportunities have not been exploited. The reason for this may be the non-existence of fishermen in many places. The fishermen population is concentrated in Gokak, Chikodi, Athani Hukeri and parts of Belgaum blocks.

7. Forests

The percentage of area under forests in the dist. is much below the state and country figures; and again about half of it is covered by a species of trees of shrubby nature with stunted growth in the drought prone areas. Most of the areas in and around Khanpur block are under ever green forests. The major forests produce in the district are teak-wood, timber, teak poles, bamboos, J-wood poles etc. The minor forests produce includes mosha grass, tendul leaf, tamarind fruits, honey, wax etc. (Statement 16).

8. Mineral resources

Bauxite which is used in manufacture of aluminium, is found abundantly over a continuous and an extensive stretch of 50 to 75 miles in the hilly regions of Boknoor, Bijagarni Karlu, Jamboti, Rajahansgad, Kalasidnigad and other places. The estimated availability of bauxite is sufficient to feed the aluminium factory established near Belgaum city. However, at present, bauxite is being imported from outside places like Ratnagiri and Kolhapur of Maharashtra.

The Khanpur - Londa region is known for the enormous resources of inferior quality manganese ore. Calcite, which is used in the manufacture of bleaching powder is also available in this region.

The other important minerals available are lime stone, china clay, felspar, quartz, the Dharwarian schists, inferior iron ore and to a little extent gold. (Statement 18)

9. Industries :

Belgaum district has a well developed industrial base, when compared to many other districts of Karnataka. There is an uneven distribution of the industrial activities, and a majority of the large and medium scale units are confined to a few pockets of the district, particularly Belgaum Block.

The industrial structure of the district can be broadly divided into three groups.

- i) large and medium scale industries;
- ii) the small scale industries ;
- iii) cottage industries.

The large and medium scale industries established in the district are.

- a) The Indian Aluminium Co. Ltd. Belgaum ;
- b) The Gokak Mills Ltd., Gokak ;
- c) The Ugar Sugar works Ltd. Ugar Khurd ;
- d) The Hiranyakeshi Co. of Sugar factory Ltd. Sankeshwar;
- e) The New Bemco Engineering Products Ltd. Udyambag, Belgaum ;
- f) The Malaprabha Co-op. Sugar factory Ltd. M.K. Hubli.
- g) M.J. Fertilisers Pvt. Ltd. Belgaum &
- h) The Doodhganga Krishna Sugar factory Belgaum.

These industries together provide employment to nearly 15000 people in the dist. (Statement 20). Three new sugar factories under the co-operative sector are proposed to be started

at Chikodi, Raibag and Gokak. To facilitate the long felt needs of the people growing maize around Ghataprabha area, a starch factory is to be established under the co-operative sector in Hukeri block. Two co-operative spinning mills are also proposed to be set up in the district to meet the yarn requirements of weavers. Licences have been issued to M/s. V.S. Dempo & Co. Pvt. Ltd., to produce infant food and other allied milk products; and to M/s. Carborandum Universal for the manufacture of electro cast and fused cast refractors.

Small scale Industries: The rapid growth of small scale industries has largely contributed to the industrial development of the dist. The development in this district has followed the familiar pattern of growth which is marked for its dependence on local resources. The statistical information on small scale industries available at the office of the Dy. Director of Industries and Commerce, Belgaum is indicated at statement 21. It is learnt from other sources that as on March, 1976, there were as many as 521 different types of small scale industrial units spread all over the district providing employment to nearly 5000 persons. The different types of industries have been classified as.

1. Ceramics and glass;
2. Chemicals;
3. Ferrous and non-ferrous;
4. Food; beverages and tobacco;
5. General Engineering;
6. Leather and rubber products;
7. Paper, pulp and allied products;
8. Printing;
9. Textiles;
10. Wood products and various other miscellaneous products.

An Industrial Estate has been established in Belgaum city to help the growth of small scale industries in the dist. The no. of sanctioned sheds are 48 with 6 godowns and 39 plots. (St. 19) Another Industrial Estate has been set up at Nippani, under the Co-operative management. There is a proposal to set up three more such Estates at Gokak, Soundatti and Belgaum.

Our discussions with entrepreneurs reveal that the problem faced by the small scale units are the following: There is a general complaint about getting adequate and timely credit facilities. Even though the position as regards raw materials supply has somewhat improved at present, difficulties are said to be still experienced in getting certain items such as special steel and any chemical in required qualities at reasonable prices. Payments for the supplies made to the large scale units are not received in time which adds to the difficulties of the entrepreneurs in the context of inadequate Bank finance. Some of the enterprises, particularly in the lines of servicing, repairing, undertaking job orders and producing articles to meet consumers demand, are facing stiff competitions from well-established large units as well from small units outside the state.

Cottage Industries

It may be seen in Statement 22, that the village and cottage industries figure prominently in the rural industrial scene of the dist. Carpentry, blacksmithy, leather units (cobblers), fibre and rope making, basket weaving, mat making and pottery are some of the important cottage and village industries in Belgam dist.

Handloom weaving is predominantly a rural activity.

After agriculture, handloom industry provides a source of livelihood to the largest number of people in the dist. There are about 16,000 weaving families having 18,000 handlooms. There are about 3,300 powerloom units in the District.

Of late, a lot of importance is being accorded for the revival of this vital sector of the economy. A number of programmes have been enunciated for giving a new lease of life for the industry.

Non-Farm Establishments

The statistical Department has conducted 'Economic Census' of Non-farm establishments in 1977. The quick tabulation of the data under the following categories are available in statements 35, 36, 37 & 38.

- a) The District abstract ;
- b) Aggregation for the District for towns and cities in each taluk ;
- c) Aggregation for District for villages having more than 5000 pop'n ;
- d) Aggregate for the district for villages having less than 5000 pop'n.

The non-farm establishments included in this cover all establishments excluding agriculture, animal husbandary and govt. services. An over-all picture of distribution of such establishments and employment in them in rural and urban areas is also available in these statements.

New Industrial Possibilities

On the basis of a study of the resources available and the demand for manufactured goods, the following small scale/cottage industries are found to have scope for development. The small scale sector will emanate when this sector functions as a complementary to the large scale sector. On the basis of the discussions with the concerned authorities the items which can be profitably taken up as 'candidate Industries' are indicated below.

A. Agricultural Resorces Based Industries :—

1. Rice Mills ;

2. Hard board from rice husk and ground nut husk ;
3. Flour mills for wheat and maize ;
4. Starch and allied by-products (dextrine, glucose, cornflakes, popcorn, Bakery) ;
5. Extraction (Expeller and solvent) of oil, Lecitin-refin and hydrogenation laurly alcohol and fatty acids from Groundnut and cotton seeds.
6. Cattle and poultry feed out of groundnut husk, rice husk and cotton seeds.
7. Manufacture of Khandasari sugar ;
8. Power Alcohol and rectified spirit ;
9. Sugarcane wax ;
10. Cotton ginning and pressing unit ;
11. Surgical cotton and bandage cloth ;
12. Peha & Churmuri making ;
13. Gram's puthani Roasting ;
14. Dal making units ;
15. Chillies grinding powder ;
16. Nicotine sulphate and its derivatives from tobacco and blending.

B) Animal Resources Based Industries :

1. Milk chilling plants ;
2. Milk collection centres ;
3. Poultry farms ;
4. Bone and flesh meal units ;
5. Tannery ;
6. Foot wear ;
7. Wool industry units ;
8. Wool spinning plant ;

C) Forest Resources Based Industries

1. Mybrolan preparation ;

2. Shikekai pulverising ;
3. Honey-Bee wax ;
4. Extraction of oil from Karanja, Neem, rosha grass ;
5. Wood seasoning plant ;
6. Activated carbon ;
7. Charcoal ;
8. Packing cases and plywood ;
9. Brickets from saw dust ; for estwaste and rice husk ;
10. Dolls out of saw dust ;
11. Moulding components from woodchips ; saw dust and allied products ;
12. Wood turning and educational toys.

d) Minerals based Industries :

1. Bauxite a) Pure aluminium ; b) ferric aluminium ;
c) Aluminium sulphate ; d) Aluminium industries with anodisation ; e) fire bricks ; f) Aluminium chlorides.
2. China clay a) Tailor's chalk, slate pencils, Ultramarine blue, Ceramic products, crockery, and S- W. pipes.
3. Gypsum Plaster of parts
4. Lime stone a) Precipitated chalk ; b) Bleaching powder ;
c) Calcium chloride ; d) Calcium carbide ; e) Chlorates of potassium and sodium.
6. River sand a) Sodium silicate ; b) silica get.
7. Clay a) Tiles and bricks (Mechanical) b) Stone ware pipe.

E. Demand Based Industries

1. Shuttles and bobbins, looms and accessories ;

2. Distilled water and Battery charging units ;
3. Printing and Bookbinding ;
4. Power laundry ;
5. Automobile and Engineering including servicing of I. P. sets, Dustors, Sprayers, and Tyre retrading ;
6. Saw mill with modern wood working unit ;
7. Building construction materials ;
8. Ice candy ;
9. Agricultural implements ;
10. Readymade garments ;
11. Travelling equipment ;
12. Pickles and condiments and food products ;
13. Fruit preservation ;
14. Paper bags ;
15. French polish (Non-alcoholic) ;
16. Wood lacquerwars and paints and varnishes ;
17. Sports goods ;
18. Umbrella assembly ;
19. Plastic rain coats ;
20. Mixed fertilisers ;
21. Sand papers ;
22. Kumkum ;
23. Straw board ;
24. Pulp from bagasse ;
25. Insecticides
26. P.V.A. Adhesive ;
27. Scented tobacco ;
28. Tcented supari ;
29. Gummed tape ;
30. Copper sulphate.

Detailed information of many more candidate industries and the suitable places for their location in Belgaum District is available in the office of the Dy. Director of Ind. & Commerce, Belgaum.

The healthy industrial climate of the district offers vast avenues for the development of a large number of resources based and need-based industries.

9. Trade and Commerce

In the district there is a net work of 31 Regulated Markets and sub-markets of major agriculture crops and trade in livestock has been brought under the marketing Legislation. With the help of the world Bank and other banks, it has been proposed to modernise six regulated markets at Bailhongal, Belgaum, Gokak, Rnmdurg, Sankeshwar and Soundatti under the Market Development Project. The Marketing Dept. has plans to assist farmers in grading their commodities,

At present, there is a Central Warehouse in Belgaum and 4 State warehouses one each at Athani, Bailhongal, Gokak, and Ranidurg, which together have a total storage capacity of over 18000 cubic metres. In addition to the above, there are 199 private godowns and 139 co-operative societies godowns, established in different parts of the dist. (In view of the number of developmental programmes envisaged, it necessitates the increase of warehousing facilities in the District).

The District is exporting a good number of non-agricultural commodities like footwear, wool, groundnut oil, sugar, engineering goods, aluminium ingots, handlooms and powerlooms, textiles, canned fruits, vegetable oils, tobacco, betal leaves, limestone, cement pipes, scented sticks, forests produce, cotton yarn, alcohol, granulated fertilisers, pottery and ceramics etc., to name a few.

10. Co-operatives and Banking :

The growth of co-operative movement in Belgaum district is indicated in statement 31. There are 1917 co-opertive societies

with a membership of 512618. The co-operative banks in the dist. still continue to be the major source of agricultural credit and form the backbone of the rural credit structure. It is estimated that nearly 50 percent of the short-term credit to agriculture is being met by the co-operative sector.

The network of the commercial bank branches in the dist. is quite impressive. Out of 137 branches as on Sept. 1976, ninety-nine were located in rural and semi-urban areas. As a result of the introduction of 'Lead Bank Scheme', a good number of potential growth centres for opening branches have been identified. Almost all the commercial banks functioning in the country are represented in the district. They have become a new source of credit especially in the rural areas.

II. Community and Health Services :

There are 700 youth clubs, 45 yuvathi clubs, 15 Hobby groups, and 8 Teen age clubs affiliated to Dist. Youth Services Board (St. 39). Mostly the youth clubs are engaged in the sports and games, cultural activities like drama, bhajana etc. and many of them do shramadan like constructing gymnasium halls, approach roads, vanamahotsava etc.

There are 11 student welfare officers in different taluks of the district and they are guiding their colleges/students in youth activities - particularly sports, games, cultural activities and cultivation of hobbies. There are 20 K.Y.S.C. volunteers attached to Hospitals, Hostels, Junior colleges and Village Panchayaths. They are engaged in guiding school boys in physical education, personal hygiene, shramadan and cultural activities. They are also guiding villagers in the use of modern method of cultivating and help in conducting Adult Education classes.

Health Services :

There are 88 Hospitals and Dispensaries (including T.D.B. & Municipal) and 21 Primary Health Centres with 1289 beds. 63 family Planning centres are working in all the taluks of Belgaum District.

Though Belgaum and other taluk headquarters are provided with medical facilities by Government/Private hospitals, there are many shortfalls in medical facilities. It was found that there is good scope for setting up nursing homes in selected places. There is also derth with regard to supply of drugs and medicines in rural areas.

Discussions with Medical authorities reveal that certain latest techniques in Medical Record Maintenance are not found in the Northern Karnataka region. The sophisticated machines like X Ray machines etc. are at present, being handled by persons without suitable training; and this has got adverse effect on the maintenance of these machines and also on the results obtained from them. Training for certain middle-level categories like X-Ray technician, Laboratory technician, pharmacist, physio-therapist, Psychiatrist etc. is insufficient, and therefore the medical services have been deprived of the contributions of such technical know-how in medical field.

12. Educational and Training Facilities

Educational facilities are fairly wide-spread, and the dist has made quite a good progress in improving educational facilities after the introduction of compulsory primary education.

There are 91 Ba-lavadies (Aided, Govt. and T.D.B) ; 1043 Lower Primary schools ; 1090 Higher Primary schools ; and 196 High / Higher secondary schools in the dist- (Statement 32)

The output of X, XI, and XII classes from 1972 onwards, as indicated in statement 33 and 34 shows a steady increase year after year.

There are 25 colleges, and 22 schools of professional and special education including teachers training, polytechnic and a Medical college at Belgaum. The professional institutions are mainly concentrated in Belgaum city.

There are no Engineering Colleges in Belgaum District. The polytechnic at Belgaum offers Diploma courses in civil, Elect. Mechanical Engineering and Secretarial Practice. The Artisan Trg. Institution at Gokak, Khanpur and Belgaum offer training in the usual trades like smithy, carpentry, leather, lacquerware, cotton weaving, pottery, and Dolls and Toys making. There is a Military school at Belgaum and a Sainik School for girls at Kittur.

In addition to the above, the different departments like the Medical Agricultural, Animal Husbandary, Health services, etc. are organising short-term orientation programmes in the respective fields. Taking all these aspects into consideration, an attempt is made to suggest Job-oriented Pre-University Diploma courses in Belgaum District, to educate students to meet the middle level category of employment, avoiding duplication of training wherever it exists.

13. New courses suggested for implementation in Belgaum District

The following job-oriented pre-university diploma courses (2 year duration) are suggested for implementation in the background of employment potential, lack of trained personnel and the need for technical know-how at the middle-level employment category in different areas.

I. Courses in rounded in other Districts (for which syllabi etc. are ready), that could be introduced in Belgaum District in selected schools.

<i>Sl. No.</i>	<i>Code No.</i>	<i>Name of the course</i>
1.	TE 1.01	Building construction Technology ;
2.	TE 2.01	Servicing Technology ;
3.	TE 3.01	Electrical Wiring and Servicing of Elect. appliances ;
4.	Ag 1.01	poultry science ;
5.	Ag 1.02	Dairying ;
6.	Ag 1.03	Sericulture ;
7.	Ag 1.05	Co-operation ;
8.	Ag 1.06	Pesticides, Fertilisers, and Weedicides ;
9.	HE 1.01	Laboratory Technician ;
10.	HE 1.03	X-Ray Technician ;
11.	HE 1.04	Medical Record Technician ;
12.	HIE 1.06	Multipurpose Basic Health Workers ;
13.	B. 1.02	Materials Management Technology ;
14.	B. 1.04	Accountancy and Auditing ;
15.	B. 1.05	Accountancy and Costing ;

(Details in Anuexure II)

II New courses that can be introduced in Belgaum District in relation to the infrastructure and other facilities available

1. Tobacco Technology ;
2. Oil Technology ;
3. Textile Technology ;
4. Leather Technology ;
5. Mineral Technology and Administration ;
6. Forestry and Wood Products ;
7. Printing and Book Binding ;
8. Tailoring and Machine Embroidery ; (For girls) ;

9. Plantation crops and Management;
10. Scientific Agriculture.

(Details in Annexure II).

Students, if trained in these courses, will have ample opportunities for starting either self-employment or securing employment at middle level in Engineering, Agricultural, health and business areas where the technical know-how is very limited.

CONCLUSION

There are no two opinion about the utility of the new courses suggested in this report; for they provide scope for the 'much needed' diversification at the secondary stage in gainful areas. They will contribute much to decelerate the out-turn of general arts, science and commerce graduates from the educational system. A portion of the matriculate population also will be diverted increasingly to non-clerical occupations.

At the same time, doubts are also expressed about the effective implementation in the background of the past experimentation on Basic Education, Multipurpose scheme of Education and Technical Education. Past failures and lapses should not prevent us from taking timely action according to the needs of the hour. Introduction of the Job-oriented Pre-University Diploma courses is in tune with the present day thinking on several issues, like

- (a) 'Delinking the degrees from Jobs';
- (b) 'Production through masses and not mass production';
- (c) 'Encouragement for industries in the rural sector'.

The trained man-power requirements of several need-based and time-bound programmes can, perhaps, be met only through an effective implementation of the Job-Oriented courses.



ANNEXURE - I
STATISTICAL STATEMENTS
(1 to 39)

STATEMENT 1

AREA AND POPULATION

Tehsil	Area (Sq-kms)	Population (1971)	Density of population per sq. km. (1971)	No. of inhabited villages (1971)	No. of Urban Areas	Percentage of literacy
1	2	3	4	5	6	7
Athani	1996.0	278234	144	89	1	24.0
Bailahongal	1122.2	214508	191	125	1	29.8
Belgaum	1036.9	429022	419	130	2	44.6
Chikkodi	1269.5	364075	293	100	3	34.0
Gokak	1539.7	272803	176	104	4	24.9
Hukkeri	992.0	240927	244	119	2	27.6
Khanapur	1749.1	151900	87	220	2	30.6
Raibag	959.2	155699	162	52	2	19.2
Ramadurg	1215.1	133687	110	103	1	26.6
Saundatti	1581.1	182587	115	116	1	28.9
Dist. Total	13410.0	2423342	181	1158	19	30.7

STATEMENT 2

GROWTH OF POPULATION

Year	Urban	Rural	Total	Rate of growth
1951	4,17,669	13,09,239	17,26,908	-/- 16.71%
1961	3,57,469	16,26,342	19,83,811	-/- 20.53%
1971	4,97,793	19,25,549	24,23,342	-/- 22.16%

STATEMENT 3

POPULATION IN RURAL AND URBAN AREAS

Tehsil	Rural		Urban		Total		Total
	Male	Female	Male	Female	Male	Female	
Athani	130123	123733	12580	11798	142703	135531	278234
Bailhongal	98642	96426	9902	9538	108544	105964	214508
Belgaum	111633	103517	113514	100358	225147	203875	429022
Chikkodi	154425	143688	34275	31687	188700	175375	364075
Gokak	105093	101715	33919	32076	139012	133791	272803
Hukkeri	107737	101777	16365	15048	124102	116825	240927
Khanapur	68906	68295	7612	7087	76518	75382	151900
Raibag	66767	62606	13732	12594	80499	75200	153699
Ramadurg	57396	56494	10009	9688	67405	66182	135587
Saundatti	84092	82484	8093	7918	92185	90482	182587
Total	984814	940735	260001	237792	1244815	1178527	2423342

STATEMENT 4

POPULATION SCHEDULED CASTES, SCHEDULED TRIBES, ETC., 1971.

Tehsil	Scheduled Caste		Scheduled Tribe		Other Backward Class		Total
	Male	Female	Male	Female	Male	Female	
Athani	20294	20129	1245	1387	NA	NA	43,055
Bailhongal	6569	6520	4687	4569	..	..	22,345
Belgaum	10834	10277	6006	6027	..	..	33,144
Chikkodi	26482	25264	401	370	..	..	52,537
Gokak	9664	9487	8635	8399	..	..	36,185
Hukkeri	14258	13676	3742	3376	..	..	36,052
Khanapur	4331	4468	1441	1487	..	..	11,647
Raibag	12476	11939	303	316	..	..	25,034
Ramdurg	3681	3860	70	75	..	..	7,686
Saundatti	4304	4419	320	374	..	..	9,417
Total	112893	110059	26850	26300	NA	NA	276,102

Industrial activity	Rural	Urban	Total	Percentage
Printing Press, Dying of yarn, Diesel engine Spare parts, Brass casting, wire brushes, Miniature models of animals and teal skin, cement pipes, Agarbathi & mirror Liquid Paraffin and castor oil, Twisting of Artsilk yarn, Plastic Novelty and fountain pens, Cashewnut Kernals and cashewnut oil, Hardware & Chappals, Bone meales, Flour Mills and Machine tools, Castings, Oil engine Crank shafts. Tin containers, Poultry feed, Fire bricks and Ceramic products, Plastic novelties, Ice cream and Ice candles, Agril. implements and machinery spare parts, Hospital equipments, wooden furnitures and sewing of Timber, Confectionery, malt and miik food, Sodium silicate, Cobalt chloride, Stone Crushing, Hydraulic Press, Hydraulic Jocks, Mild steel washers, Leather Tanning, Flour Mill Parts, Hosiry goods, retreading tyres, wooden toys, and Balwadi equipments, Automobile spare parts, powerloom components, Bread and Biscuits, Wax candles, Groundnut oil, Grey iron castings, Receipt books and book binding, powerloom and Handloom Sarees, Dhotis, Pounding machine, Foot balls, sheet metal, component for Oil Engines, Washing soap, Steel furnitures Bismath salt, Servicing of fuel injection, Copper and brass utensils, Campher tablets, Bakery machinery and machinery parts, Steel fabrication, manufacture of trunks, Wooden electric goods, Poha, Electric goods, Stone crusing, Clearing liquide perfumes, Phinyle, Castroil, Eculyptus Oil, Woollen Blankets, Electroplating, Pulleys, Cotton ginning. Aluminium utensils, Scooter parts manufacturing, Types of Kannada, English-Chemical manufactures of micronuteres, frnritures, Engineering job work, wax papers for rapping of Bread, Biscuits Soaps, Watch assemble and repairs.	45	195	240	18.7 % Rural 81.3 % Urban

STATEMENT 6

POPULATION-

Tahsil	Workers			
	Cultiva- tors.	Agricul- tural labourers	Mining & Qurry- ing	Live-Stock Forestry Fishing Planation etc.,
Athani	46706	28638	135	1892
Bailahongal	34066	28737	32	1706
Chikkodi	64472	30276	82	2329
Gokak	39865	22263	87	1909
Hukkeri	51100	21353	49	1486
Khanapur	34230	13360	66	977
Raibag	28028	13446	125	2538
Ramadurg	25671	21060	56	2269
Saundatti	31591	27712	23	2513
Belgaum	48085	15967	199	1715
Dist. Total	403814	222812	854	19334

INDUSTRIAL ACTIVITY 1971

Workers						Non Workers
Manu- factu- ring industry	Constr- uction	Trade and commerce	Trade & commu- nication	other servi- ces		
5629	521	2901	766	3771	187402	
25869	544	3092	600	3557	136305	
11010	1398	5413	1651	6397	241047	
12825	914	4284	1433	5115	184108	
7344	2744	3723	1328	5222	146578	
3431	271	1799	1195	3068	93503	
2632	1333	1385	488	1782	103942	
7427	686	2258	255	2358	71517	
4436	2204	3279	616	3425	106788	
25986	3677	14048	6280	20686	292369	
86462	14292	42182	14652	55381	1563559	

Total Workers	859783	}	Total Non-workers	1563559
Students	318825			
House workers	1244734			

STATEMENT : 7

WORKING POPULATION OCCUPATIONAL

Occupation		Rural		Urban		Total	
Tq. Code	Description	Male	Female	Male	Female	Male	Female
Industries	Cultivators	324841	57143	19468	2362	344309	59505
	Agricultural labourers	130223	19327	78011	4251	140550	82262
	Live Stock Forestry etc.	15225	2651	1409	49	16634	2700
	Mining ; Quarrying	531	64	245	14	776	78
	(A) Household	25365	6195	10455	3212	35820	9407
	(b) Other than Household	14066	1025	23527	2617	37593	3642
	Construction	8343	1396	4027	526	12370	1922
	Trade and Commerce	14035	1834	24977	1336	39012	3170
	Transport and storage	3936	246	9956	514	13892	760
	Other services	27150	2670	21978	3583	49128	6253

Source : Population Census 1971

STATEMENT 8

(LAND UTILISATION)

Item	1970-71 Area (Hectares)	Latest Year 1975-76 Area (Hects)
1. Total graphical Area	1346400	1346382
2. Area under forest	192070	191129
3. Uncultivable land	50485	46595
4. Land put to non-agril. Use	43570	48414
5. Cultivable waste	19186	21519
6. Permanent pasture	35021	29250
7. Land under Misc tree crops	2127	2112
8. Current fallow	65761	76695
9. Other fallow	26206	26390
10. Net area sown	911974	904278
11. Area sown more than once	14414	24609
12. Gross cropped area	926388	928887

STATEMENT : 9

NUMBER OF HOLDERS CLASSIFIED ACCORDING TO EXTENT OF
(Area in

Sl. No.	Name of Taluka	Below 2 Hects.		2 Hects. to 4 Hects.		4 Hects. to 6 Hects.		6 Hects. to 12 Hects.
		No. of holdings	Area	No. of holdings	Area	No. of holdgs	Area	No. of holdgs
1	2	3	4	5	6	7	8	9
1.	Athani	18,127	21,551	10,255	29659	3038	22192	5838
2.	Bailhongal	21,427	23,499	8,167	22469	3395	16265	2608
3.	Belgaum	34,417	22,825	6,205	15162	2008	9970	1568
4.	Chikkodi	31,145	21,994	9,156	27128	3338	17515	2598
5.	Gokak	22,810	27,375	9,283	26314	3660	17931	3374
6.	Hukkeri	22,818	20,372	6,033	16292	1998	10261	1501
7.	Khanapur	14,143	14,041	4,805	14765	2260	11493	1885
8.	Ramdurg	8,578	10,807	6,558	17859	3343	15852	3256
9.	Raibag	8,372	7,835	4,407	10495	2285	9422	2817
10.	Saundatti	13,614	16,631	7,792	21771	3808	18400	3405
Total		1,95,451	1,86,930	72,661	201914	31133	149301	28848

AND DURING THE YEAR 1975-76 (District : Belgaum)
 (in Hectares)

Area	12 Hects. to 24 Hects.		24 Hects. to 40 Hects.		40 Hects. to 80 Hects.		Above 80 Hects.		Total	
	No. of holdgs	Area	No. of holdgs	Area	No of holdgs	Area	No. of holdgs	Area	No of holdgs	Area
10	11	12	13	14	15	16	17	18	19	20
50411	2688	41682	368	10071	72	4802	19	2986	42405	183354
19569	469	7782	44	1416	17	1015	6	2017	36133	94032
12423	301	4567	60	1937	34	3241	.....	.....	44590	70125
22900	737	13739	216	7096	33	1483	17	1700	47241	113555
25233	927	15075	109	3822	38	2090	30	5236	40231	123076
12171	265	4397	32	953	18	1052	12	2999	32677	68497
16493	448	7324	57	1976	17	886	39	8635	23654	75613
26526	970	15536	183	4856	33	1788	11	1833	22932	95057
16902	1560	18720	349	8376	127	5080	65	5496	19982	82326
27913	1673	24450	180	5412	43	2419	38	10354	30553	127350
30541	10038	153272	1598	45915	432	23856	237	41256	340398	1032985

STATEMENT 10 AREA UNDER MAJOR FOOD AND NON FOOD CROPS IN BELGAUM DISTRICT

Crops	Area in Hectares	Percentage to total cultivated area	Yield Rate Kgs/Hectare	Total production (M. Tonnes)
Jowar	203327	22.02	277-2159	150065
Bajra	99041	10.72	288	28816
Wheat	60886	6.60	385-1847	23441
Rice	53195	5.76	1616-3395	85964
Maize	37870	4.11	3002	34083
Others	163771	17.74	.....	65841
Total Food Crops	618990	66.95	.....	388210
Groundnut	126728	13.73	748	94793
Cotton	64932	7.03	140-806	52320
Sugar cane	28983	3.14	72*	208677
Tobacco	22919	2.48	492	11275
Others	61535	6.67	.....	2274
Total non-food crops	305097	35.05	.....	369339
Total	923187	100.00	.....	757549

*M. Tonnes.

STATEMENT 11 CREDIT REQUIREMENTS OF THE AGRICULTURAL MACHINERY (1976-79)

Agricultural Machinery implements	Estimated physical requirements.	Average unit cost. (Rs.)	Total requirement Rs. 1 lakhs	Credit component	
				At per- cent	Amount (Rs. lakhs)
1. 35 HP Tractors (with trailer & accessories)	125	60,000	75.00	80	60.00
2. Power Threshers (with a capacity of 30Qts/hr.	125	3,000	3.75	80	3.00
3. Power Tillers (inclusive of accessories)	100	20,000	20.00	75	15.00
4. Sugarcane crushers (powered)	300	4,000	12.00	75	9.00
5. Iron ploughs	300	4,000	12.00	75	9.00
6. Bullock Carts	5,000	3,000	150.00	100	150.00
T o t a l	.....	.....	272.75	.....	246.00

STATEMENT 12

AREA UNDER INTENSIVE AGRIC. AREA PROGRAMMES (Area in Hects.) 1976-77

Sl. No.	Name of the Taluks	Kharif season				Rabi season					
		Paddy	K. Jowar	Gr. nut	Castor	R.Jowar	B.Wheat	Cotton	Safflower	Linseed	Summer Gr. nut
1.	Belgaum	16309	3000	3058	50	1571	821	125	20	350	10
2.	Khanapur	18160	.....	232	.....	30	192	.....	35	40	6
3.	Bailahongal	8010	15100	14530	55	173	6397	12036	2860	240	46
4.	Gokak	.....	9550	7060	65	22300	2500	4120	1000	486	25
5.	Saundatti	.....	12000	10000	50	14000	8080	9000	3100	410	185
6.	Ramadurg	.....	3164	13500	56	18300	6910	2997	2810	485	394
7.	Chikkodi	.....	24573	25414	37	3970	653	1048	253	52	15
8.	Hukkeri	1140	16000	20500	50	550	440	.....	165	.....	19
9.	Raibag	.....	7550	6750	45	8153	2997	7008	864	260	59
10.	Athani	.....	9618	7242	26	43650	450	11154	1450	221	25
Total		43619	100555	108285	434	112697	29456	42552	12557	2544	815

STATEMENT 12 (Contd.) AREA UNDER HIGH YIELDING VARIETIES PROGRAMME 1976-77

(Area in Hectares)

Sl. No.	Talukas	Paddy	H. Jowar	H. Maize	Crops H. Bajra	M. Wheat	Rabi		Summer	
							H. Maize	H. Jowar	H. Maize	H. Maize
1.	Belgaum	6800	2212	262	....	1426	138	10	71
2.	Khanapur	3314	412	42	....	226	35	2	32
3.	Bailhongal	2103	4308	216	88	2458	72	24	82	
4.	Gokak	....	1165	11300	25	7750	2500	37	328
5.	Saundatti	....	2105	330	235	3200	170	5	172
6.	Ramadurg	....	407	1912	207	3232	270	26	135
7.	Chikkodi	60	3157	672	9	1090	569	225	150	
8.	Hukkeri	700	3100	2078	10	1250	650	20	324	
9.	Raibag	....	39	11350	21	3058	2640	1220	1153
10.	Athani	....	672	3612	20	2200	1910	130	520
Dist. Total		12,977	17,577	31,774	615	25,890	8,954	1,699	2,967	

STATEMENT 13

IRRIGATION : AREA IRRIGATED BY SOURCES HECTS.

Sources	1970-71	Latest Year 1975-76	
		Gross	Net
1. Govt. canals	N.A.	48132	42946
2. Private canals
3. Tanks	14108	12282
4. Wells	59980	58244
5. Lift irrigation
6. Other Sources	21596	20426
7. Total area irrigated to gross cropped area	143830	133898

STATEMENT : 14

NO. OF IRRIGATION PUMP-SETS

Tehsil	Irrigated	Pump set 1975-76	oil engine
INFORMATION PERTAINING TO 1970-71 IS NOT AVAILABLE.			
1. Athani		2598	2880
2. Bailahongal		901	743
3. Belgaum		1398	1369
4. Chikkodi		3639	1984
5. Gokak		1889	1383
6. Hukkeri		2614	1431
7. Khanapur		260	87
8. Raibag		2351	2281
9. Ramdurg		1221	591
10. Saundatti		576	287
Total :		17947	13036

STATEMENT 15

LIVE STOCK

Live Stock		1970-71	Latest year*	Change
1. Milch animals	(i) Cows	2,05,359	* The live stock census of 1977 is not completed yet	
	(ii) Buffalows	2,47,832		
2. Draught animals	(i) Cows	2,78,042		
	(ii) Bulls			
	(i) Buff			
	(ii) Bulls	1,75,149		
	Total	9,39,627		
3. Sheep		4,19,386		
Goats		3,55,099		
Pigs		58,627		
Poultry birds		6,40,015		

STATEMENT : 16

FOREST PRODUCT (BELGAUM DISTRICT) BELGAUM CIRCLE

Sl. No.	Details of Forest Products	Unit	1970-71	Latest year i.e. 1976-77	Remarks
1	2	3	4	5	6
1.	Teak Logs	Belgaum Dist. i.e. Belgaum Dn. & Ghataprabha Dn.	1674.747 Cum	2667.453 Cum	
2.	Teak Poles	"	12412 No.s	1659.080 Cum.	
3.	Teak Kalagas	"	1028 No.s	7.349 Cum.	
4.	J. Wood logs	"	1717.717 Cum.	233.035 Cum.	
5.	J. Wood poles	"	3267 No.s	233.730 Cum.	
6.	F. Wood	"	15144.492 St. Cum	8104.935 St. Cum.	
7.	Bamboos including Dowgas, Medri & Shibs etc.	"	157972.00 No.s	2540 Tonnes	
8.	Sissum logs	"	Nil	565.007 cum	
9.	Sissum poles	"	Nil	143.010 Cum.	
10.	Sissum pieces	"	Nil	642 Cum.	
11.	Minor Forest product	"	330.00	867.37	
12.	Mines and Minerals	"	1955.00 baras.	2594.00 Baras	
13.	Miscellaneous Forest Products	"	1889-00 Cart loads	3100.00 Cart loads	

STATEMENT 17

FISHERIES

Item	1970-71	Latest Year	Change
1. Inland area suitable for fishing (Acres)	64420 acres + 320 miles river stretch	46620 acres + 320 miles river stretch	17800 Acres
2. Inland area utilised (Acres)	58120 + 320 miles	58120 + 320 miles	
3. No. of fishing Co-op. Societies	11	14	3
4. Quantity of Fish hawled	(Estimated products)		
i) by Co-op	210 M.T.	900	690 M.T.
ii) Others	150 M.T.	600	450 M.T.

STATEMENT : 18

MINERAL PRODUCTION [Belgaum Division] IN TONNES

MAJOR MINERAL PRODUCTION

Sl. No.	Name of the Minerals	Years		
		1970	1971	1976
Belgaum District				
1.	Manganese Ore	421	976	14,987
2.	Bauxite	88,723	56,261	42,067
3.	Clay	4,383	6,537	2,744
4.	a] Limestone	13,310	7,008	.....
	b] Dolomite			
5.	Moulding sand	22,766	18,956	18,412
6.	Yellow clay			7,289

STATEMENT : 19

INDUSTRIAL ESTATES

Item	
1. Year of sanction	1955
2. No. of sanctioned sheds/ plots.	48 + 6 Godowns, 37 plots
3. No. constructed - sheds :	48 + 6 Godowns
No. developed - plots :	39
4. No. let out - Sheds :	48 + 6
- Plots :	39
5. No. of establishment in production :	47 + 25
6. Total employment :	987

Industry type	1970		Latest Year		Change	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
1) Aluminium ingots, Rolling slabs wirebars, Hydraulic, Alum. cocotined Aluminium	1	1287	1	1287	No Change	
2) Sugar and Alcohol	2	2263	4	3692	2	1429
3) 1 1/2 count to 80 count single & multifolded yarn, tyre card.	1	7997	1	7997	No. Change.	
4) Flour Mills, Hydraulic Presses & Jacks, Emery stones and sheet metal components.	1	476	1	476	No Change.	
5) Ghataprapha Card Board and Paper Mill Factory, Parasanatti 1977-78.	.....	.....	1	120	1	120
6) M.J. Fertilisers, Belgaum	1	105	.....	.....	.....	closed

STATEMENT 21

SMALL SCALE

Industry Type	Athani		Bailhongal		Belgaum	
	U	W	U	W	U	W
1. Cotton Ginning and Pressing Mills	4	140	6	210	.....	.....
2. Tobacco curing	.....	.....	.....	.....	.....	.....
3. Oil Mills	4	40	5	30	.....	.....
4. Cement Products	1	45	.....	.....	1	46
5. Saw Mills	.....	.....	7	49	1	7
6. Engg. Works	1	8	4	30	1	8
7. Soap Factories	.....	.....	.....	.....	2	39
8. Ceramics, Bricks and Tiles	.....	.....	.....	.....	.....	.....
9. Bakery Industry Works	.....	.....	3	18	.....	.....
10. Cane and Bamboo works	.....	.....	17	35	.....	.....
11. Granulas Fertilizer and bone meal	.....	.....	.....	.....	1	5
12. Rice Mills	.....	.....	4	16	.....	.....
13. Wood distillation unit	.....	.....	.....	.....	.....	.....
14. Cashew nut unit	.....	.....	.....	.....	1	18

STATEMENT : 22

COTTAGE

Industry Type	Athani		Bailhongal		Belgaum		Chikkodi	
	U	W	U	W	U	W	U	W
Carpentry	344	576	293	391	333	502	372	745
B. Smithy	148	256	67	283	203	323	160	343
Leather	266	508	338	443	58	77	406	751
Tanning	33	41	.....	.....	10	10	44	77
Fibre & Rope Making	229	517	39	230	11	28	324	705
Tailoring	11	14	16	16	286	337	113	142
Cane&Bamboo	62	157	17	55	40	85	98	227
Mat Weaving	60	116	156	283	9	45	12	36
Pottery	105	232	89	195	103	177	312	677
Bricks & Tiles	4	11	1	3	1	4	34	90
Charcole and Limestone burning	4	5	10	26	4	5	5	11
Wool Weaving	73	157	10	17	55	102	54	106
Handloom with Powerlooms	3	9	171	566	112	209	51	124
Oil crushing	9	20	26	43	4	5	12	16

INDUSTRIES

Gokak		Hukeri		Khanapur		Raibag		Ramdurg		Soundatti	
U	W	U	W	U	W	U	W	U	W	U	W
331	553	476	786	341	591	217	395	272	477	311	539
133	227	187	317	146	291	93	136	118	197	114	326
416	358	224	495	52	81	157	254	70	140	141	288
35	82	68	112	.....	.....	25	44	.....	.....	17	39
141	169	262	529	.....	.....	188	395	53	162	197	539
32	67	73	106	14	28	150	187	36	59	108	119
69	188	56	111	116	254	39	83	40	113	64	97
58	110	114	271	19	82	64	27	41	77	36	97
98	215	202	442	229	566	58	107	57	133	126	204
67	132	.....	.....	55	181	.....	.....	.....	.....	1	2
20	51	11	29	16	30	7	17	50	220	21	85
42	107	133	270	.....	.....	2	57	16	16	131	168
β2	449	134	339	34	68	40	49	230	970	141	554
19	26	13	23	28	28	1	2	30	85	35	97

STATEMENT: 23 No. OF FACTORY ESTABLISHMENTS SEEKING LICENCE UNDER FACTORIES ACT.
 [Factories already registered under Factories Act]

Sl. No.	Code No.	Industry Type	No. of Estts.	Total employment
1.	19 191.9	..... Fertilizers	1	Nil
2.	20-21 201-9	..... Milk Dairy	2	30
3.	.. 211	..... Oil Mills	20	303
4.	.. 204.2	..... Rice Mills	9	70
5.	.. 228.3	..... Jarda	72	4875
6.	25 230.1	..... Ginning	30	946
7.	26 245.1	..... Silk	699	19638
8.	27 271	..... Saw Mills	50	301
9.	27 276	..... Timber & Furniture	41	276
10.	27 279.9	..... Carbons	1	30
11.	28 284	..... Printing Press	44	254
12.	30 302.9	..... Type Industries	2	35
13.	30 303.5	..... Plastic	2	47
14.	31 312.9	..... Chemicals	2	50

15.	..	314.2	.... Soap Industry	1	30
16.	32	320.4	.... Tile & Brick	3	171
17.	..	321.7	.... Glass	1	5
18.	..	323.2	.... Ceramic	2	386
19.	..	328.9	.... Cement	15	405
20.	33	331.1	.... Foundry	13	690
21.	..	335	.... Aluminium	8	210
22.	35	357.9	.... Engineering	69	4996
23.	37	374.9	.... Workshop	28	2152
24.	38	381	.... Camara works	2	30
25.	..	383.2	.... Silver	2	10
26.	..	389.9	.... Bone mills	2	50
27.	40	400	.... Electricity	3	50
28.	..	420	.... Raw water pumping stations	2	160
29.	..	421	.... Sugar	1	150
30.	..	422	.... Cashewnut	1	40

Total

1128

36390

STATEMENT : 24

No. OF ESTABLISHMENTS WHO HAVE SECURED LICENCE
BUT NOT COMMENCED PRODUCTION OR WHOSE
LICENCE ARE UNDER CONSIDERATION

de d.	Industry Type	No. of establishment	Total cap. investment	Total employment
	Engineering units	52	82,34,500	503
	Chemical	14	32,04,000	185
	Plastic	4	7,28,000	23
	Ceramics	1	1,55,000	25
	Ferrous & non-ferrous	25	56,09,000	424
	Leather and Rubber Products	6	1,69,625	32
	Printing	2	65,000	6
	Food, Bewarage and Tobacco	33	25 27,600	302
	Wood	16	6,25,600	91
	Cement Products	3	1,75,000	24
	Paper, Pulp and Allied works	2	48,000	14
	Textile	7	60,500	29
	Electrical Appliances	5	6,34,600	99
	Miscellaneous	7	5,80,500	137

STATEMENT 25

EMPLOYMENT TRENDS

Sector		1969	1970	1971	1972	1973	1974	1975	1976
0	Plantations and Forestry								
	Pub.	973	971	1116	1184	1195	915	1007	1075
	Pvt.	42	66	93	.....	.....	.....	.....	.....
1	Mining and quarrying								
	Pub.	.....	.....	.....	.....	.....	.....	.....	.....
	Pvt.	.....	.....	.....	52	61	55	162	82
2 & 3	Manufacturing								
	Pub.	360	400	4360	391	353	311	298	228
	Pvt.	12880	13610	14949	16423	16628	16966	18860	18906
4	Construction								
	Pub.	2244	2082	2129	2207	2270	2340	3790	4365
	Pvt.	1514	1062	677	2552	623	266	153	128
5	Electricity gas, Water and Sanitary services								
	Pub.	195	215	230	182	202	236	287	954
	Pvt.	211	203	205	205	220	296	334	74
6	Trade and Commerce								
	Pub.	405	747	682	710	744	950	1167	.....
	Pvt.	1113	877	1018	1057	1065	1129	1283	1413
7	Transport storage and Communication								
	Pub.	3532	3555	3626	3753	3835	3988	4061	4362
	Pvt.	13	22	48	53	47	43	43	43
8	Services								
	Pub.	19328	19734	19935	20440	20165	20125	20220	25551
	Pvt.	3690	3711	4101	4293	4256	4369	4789	4964
		46500	47245	46169	54502	51674	51989	56454	62145

Occupation	September 1975	December 1975	March 1976	December 1976
0. Agriculture, Hunting, Forestry & Fishing	2 S.T.	3 S.C.	1 O.C.	1
1. Mining and Quarrying	.....	.....	.....	.....
2. & 3 Manufacturing	1 S.C.	.....	1 S.T. 1 O.C.	2 SC/ST
4. Electricity Gas and Water	.....	.....	.....	.....
5. Construction	.....	9 S.T.	.....	1 O.C.
6. Wholesale and Retail Trade and Restaurants and Hotels.	.....	1 Ex Ser- vicemen.	.....	.....
7. Financing, Insurance, Real Estate and Business Services.	5 SC/ST	3 SC/ST 1 O.C.	2 S.C.	2 S.C. 1 S.T. 8 O.C.
8. Transport, Storage and Communication	.....	.....	.....	2 OLC
9. Community, Social and Personal services	6 SC/ST 2 O.C.	16 SC/ST	1 S.C.	3 S.T. 2 S.C. 2 B.C. 15 O.C.
..... Activites not Adequately Defined	.....	.....	.....	.....
Y. Repair services	.....	.....	.....	.....

STATEMENT 28

ROAD COMMUNICATION

Item	1970	1976-77	Change
1. Rail Road-Broad guage	214 kms.	214 kms.	.....
2. National Highways		207 kms.	
3. State Highways	Surface		2980 kms.
4. District Roads	Road	339 kms.	(PWD)
5. Other all weather Rd.	Length	1500 kms.	
6. Fair weather Road.	(Kms.)	1640 kms.	565
			(T.D.B.)

STATEMENT 29

STATEMENT SHOWING THE ELECTRICITY

Sl. No.	Tariffs	1965-66	1966-67	1967-68	1968-69	1969-70
1.	Domestic IAI			2339823	3248289	3466072
2.	Commercial IBI			616640	631327	1132840
3.	Industrial 4 AMP			8487240	4163999	16312869
4.	Public Lighting 5A			1226150	1004755	2553128
5.	Traction			.....	.....	.....
6.	Irrigation 3 IP			14726603	4613819	13291332
7.	Water works WW			671706	305085	827970
8.	Miscellaneous			447798	250907	528778
				27504969	14218181	38112989

N.B. After 1973-74 the data relates to Belgaum Division, comprising five Talukas of Belgaum, Khanapur, Bailhongal Soundatti, and Ramdurg. (Other five talukas are in Ghataprabha Division).

CONSUMPTION FROM 1965 to 1975

1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
4088815	3499358	3687537	2886396	2974887	6808830
1132140	1588542	1838762	1247350	1081125	3264345
6312869	7247682	2321195	6480763	5957855	13713041
1301728	1205165	1128271	857792	692332	1305586
.....
8293582	10320890	14623482	9827526	6096618	9656275
497215	477693	386194	240372	105919	100959
602196	174741	31240	152253	147759	144898
22228545	24514071	24020681	217502452	17056495	35002934

STATEMENT 30

INCREASE IN THE NUMBER OF VILLAGES ELECTRIFIED

Sl. No.	Name of the Taluk	No. of villages electrified		Total No. of census villages	No. of IP sets energised 1977-78
		1973-74	1977-78		
1.	Belgaum	76	106	137	3100
2.	Bailhongal	49	72	126	1262
3.	Khanapur	34	55	223	388
4.	Soundatti	38	51	117	706
5.	Ramadurga	74	85	104	1539

N.B. : The other five talukas belong to Ghataprabha Division.

STATEMENT 31

GROWTH OF CO-OPERATIVE MOVEMENT IN BELGAUM DISTRICT

Sl. No.	Type of Societies	Number		Membership	
		1970-71	1976-77	1970-71	1976-77
1.	District Central Co-operative Bank Ltd. Belgaum	1	1	1417	13372
2.	District Industrial Co-operative Bank Ltd.	1	1	1831	1689
3.	Primary Land Development Bank Ltd.	10	10	20994	44536
4.	Primary Agricultural Credit Co-operative Societies	663	530	168660	223000
5.	Grain Banks	16	16	1708	2035
6.	Non-Agricultural Credit Cooperative societies	126	163	44439	64000
7.	Specialised Marketing Cooperative Societies	1	7	266	2452
8.	General purpose Marketing Societies	11	11	9572	13079
9.	Processing Cooperative Societies	4	3	735	861
10.	Sugar Factories	5	5	13685	27807
11.	Milk Supply Cooperative Societies	50	154	2966	16138
12.	Other Live stock	7	8	662	819
13.	Farming Cooperative Societies	42	43	1502	1612
14.	Lift irrigation Cooperative Societies	12	17	1102	2371
15.	Fisheries Cooperative Societies	9	15	494	821
16.	Wholesale Stores	1	1	122	98
17.	Pry. Consumers Co-op. Societies	111	127	28134	40973
18.	Housing Cooperative Societies	80	107	11775	13650
19.	Weavers Co-operative Societies	159	157	11693	13478
20.	Other Industrial Cooperative Societies	193	201	9320	11870
21.	Spinning Mills	1	2	384	1477
22.	Industrial Estate	1	1	22	21
23.	Labour Contract Cooperative Societies	31	34	1434	2252
24.	Forest Labour Cooperative Societies	10	11	723	918
25.	Transport Cooperative Societies	5	8	578	572
26.	Rural Electricity Cooperative Societies	1	1	6091	7099
27.	District Cooperative Union	1	1	39	97
28.	Taluk Supervising Union	12	12	589	484
22.	Miscellaneous Non-Credit Cooperative Societies	44	47	4489	5037
30.	Societies under Liquidation	117	223	.....	.....
Total		1730	1917	345432	512618

2.	Belgaum City	33	5	.....	.....	38	3110	3398	512	378	7398
3.	Belgaum Tq.	16	.....	.....	.....	16	822	713	.....	.....	1535
4.	Bailhongal	15	1	.....	.....	16	1031	896	112	93	2132
5.	Chikodi	28	2	.....	.....	30	2097	1871	317	222	5107
6.	Gokak	18	1	.....	.....	19	1474	1245	157	199	3063
7.	Hukkeri	12	1	.....	.....	13	1257	1128	149	99	2633
8.	Khanapur	12	2	.....	.....	14	962	875	140	82	2059
9.	Raibag	6	1	.....	.....	7	377	369	164	131	1041
10.	Ramdurg	9	1	.....	.....	10	809	518	81	15	1123
11.	Soundatti	13	1	.....	.....	14	867	764	197	139	1967
Total		180	16	.....	.....	196	14358	12199	2030	1581	30886

STATEMENT : 33

STATEMENT SHOWING THE DISTRICTWISE STATISTICS OF THE
S.S.L.C. EXAMINATION. - BELGAUM DISTRICT

Year	No. appeared		No. Passed	
	Boys	Girls	Boys	Girls
1971	7029	2095	4634	1363
1972	8641	2813	5721	1840
1973	7381	2531	4636	1472
1974	8444	2948	6164	2066
1975	8874	3211	7515	2591
1976	9568	3617	6947	2596
1977	10360	3835	7644	2827

Year	No. appeared					No. passed				
	MATRIC	Hr. Sec.		PUC		MATRIC	Hr sec.		PUC	
		Elective	11	12	T.C. (II)		Elective	11	12	T.C. (II)
			I Yr	II Yr				I Yr	II Yr	
1965		.....	.....				.....	.....
1966		.....	.....				.....	.....
1967		.....	.....				.....	.....
1968		.....	.....				.....	.....
1969		.....	.....				.....	.....
1970		.....	.....				.....	.....
1971		.....	.....				.....	.....
1972 April	Information not collected District wise									
October										- do -
1973 April										- do -
October										- do -
1974 April										- do -
October										- do -
1975 April										- do -
October		3812	1620	.....	.....	.....	1090	670	.....	.....
1976 April		8682	4876	.....	.....	.....	2468	2434	.....	.....
October		4276	1889	.....	.....	.....	1487	825	.....	.....
1977 April		8097	5355	.....	.....	.....	2817	2703	.....	.....
October		3885	2109	.....	.....	.....	1663	976	.....	.....

STATEMENT 35

NON FARM ESTABLISHMENTS IN BELGAUM DISTRICT
(Economic Census 1977) DISTRICT ABSTRACT

Sl. No.	Area	1971 Census population (000)	Units/households with		Units households with non-agri. activities			Establishments					
			agri. enter-prises	Non-agri. enter-prises	Number		Employment	Units	House in the same pre-mises	with out pre-mises	Total employ-ment (hh & hired)		
Y	Z	1	2	3	4	5	6	7	8	9	10	11	
*	Rural (VLL)	.....	.....	.....	.....	.....	22392	3163	740	3660	243	26153
*	Rural (HL)	52528	29457	9471	2696	25186	10856	1198	806	1900	104	13744
*	Rural (1+2)	1925549	.....	.....	.....	.....	33248	4361	1546	5560	347	39901
*	Urban	497793	17415	46392	22723	3793	77243	48101	3993	2926	6101	818	58055
Total (3 + 4)		2423342	.....	.....	.....	.....	81349	8354	4472	11661	1165	97956

STATEMENT : 36

NON-FARM ESTABLISHMENTS IN BELGAUM DISTRICT

(Economic Census 1977) Aggregation for the District for towns and cities in each Taluk.

Tehsil Code	1971 Census Population (000)	Units/households with		Units/households with non- agricultural activities				Establishments				
		agri. enter- prises.	Non-agri. enterprises	Number		Employment		Units	Households	in the same premises	without premises	Total employment (hh & hired)
				in the same premises	without premises	total (hh & hired)	hired					
1	2	3	4	5	6	7	8	9	10	11	12	13
01	24378	1289	3871	1220	150	3369	1781	48	213	261	.....	2063
02	19440	681	3430	781	90	2707	1242	65	168	224	9	1753
03	213872	3029	3277	7434	1961	30701	20224	2228	1857	3340	745	25154
04	65962	3040	10739	2934	463	10105	5670	512	150	659	3	6040
05	65995	3153	10848	2319	402	14828	11478	543	67	603	7	11770
06	31413	1741	4530	1335	384	5953	3772	176	214	333	17	4214
07	14699	885	2016	527	46	896	1141	106	75	158	23	1341
08	26326	2609	1520	594	63	2041	1023	98	34	127	5	1320
09	19697	509	3744	1585	10	5091	1207	202	76	276	2	3562
10	16011	969	2417	3994	224	1552	563	55	72	120	7	838
Total	497793	17415	46392	22723	3793	77243	48101	3993	2926	6101	818	58055

STATEMENT 37

NON-FARM ESTABLISHMENTS IN BELGAUM DISTRICT

(Economic Census 1977) Aggregate for the Dist. for villages having more than 5000 population.

Tehsil Code	1971 Census population	Units/ households with		Units/households with non-agricultural activities				Establishments				
		agri. enterprises	Non-agri. enterprises	in the same premises	without premises	total (hh & hired)	hired	Units	Households	in the same premises	without premises	Total employment (hh & hired)
X	Y	1	2	3	4	5	6	7	8	9	10	11
01	109324	8383	4339	1394	118	4322	2463	178	171	336	13	2836
02	33823	2789	3602	1113	208	2592	677	77	94	149	22	848
03	38721	3447	2298	725	867	1707	803	83	41	117	7	922
04	129028	18565	5447	2264	469	6249	2923	355	85	432	8	4162
05	64291	8875	4134	1161	435	2780	913	128	22	137	12	965
06	33184	2532	3355	1034	222	3310	1594	110	151	257	4	1902
07	12383	1312	1131	290	164	757	228	43	7	48	2	366
08	36841	4130	2327	516	93	1276	669	110	69	170	9	856
09	7722	5690	736	301	14	707	84	19	.....	.....	.....	84
10	22757	1705	2988	673	106	1475	472	95	166	735	26	803
Total	487272	52528	29457	9471	2696	25186	10856	1198	806	1900	104	13744

STATEMENT 38

NON-FARM ESTABLISHMENT IN BELGAUM DISTRICT

(Economic Census 1977) Aggregate for the District for villages having less than 5000 population

Tehsil Code	1971 Census		Units	House holds	Establishments		Total employment (hh & hired)
	population (000)	Employment hired			in the same premises	without premises	
1	2	3	4	5	6	7	8
01	144532	1038	265	60	315	10	1315
02	161345	2220	201	41	322	.....	2674
03	177129	2405	365	8	442	5	2570
04	169085	2337	444	41	463	22	2499
05	142517	1748	307	1	308	.....	1806
06	176330	1764	273	102	365	10	1842
07	124818	4013	422	193	567	48	5374
08	92532	2198	232	99	236	95	2518
09	106168	2986	392	109	448	33	3635
10	143821	1623	182	12	194	.....	1924
Total	1438277	22392	3163	740	3660	243	26157

Building Construction is very necessary. There is growing demand for properly trained personnel who can truthfully get the instructions of architect or the Engineer translated as construction in the building industry. He should have a good knowledge of building materials – how to select each of them. Also how to get the materials of construction suitably placed in proper lines and level as per the drawings. He should be conversant with what constitutes good work in each of the items and how to obtain highly acceptable finishes. He should prepare charts for the work in advance and be able to estimate the cost of works of embedding pipes for Electricity, Water supply and sanitary disposal etc., should also be properly understood from drawings and incorporated into the construction without leak or breakage etc. He should in addition be capable of arranging proper mixing of constituents of concrete for laying, placing on stable forms and curing for obtaining the desired strength. He should be familiar with barbending operations and checking steel when laid for RCC work etc. Such persons will be required in almost all Talukas and Towns and are desirable at the Division offices of the public works department. They can gainfully get self-employment also.

One or two courses (25 students each) can conveniently, be started in Belgaum District to meet the manpower needs of this area.

2. TE 2.01 Servicing Technology

The number of workers engaged in various industrial activity is given in statement 6 (1971 census). The number of large-scale industries with a number of workers is found in statement 20, and that of small-scale industries in statement 21. In addition to this, there are a number of non-farm establishments, particularly in cities (St. 36) and in villages with more than 5,000 population (St. 37) which make use of office equipments like typewriters, duplicators and other

modern office equipments. Experience indicates that there is acute shortage of trained persons who can attend to the repairs of office equipments.

As and when the modern methods of office procedure and practice improve, the need for such trained persons will be on the increase.

One course (25 students per course) of 2 years duration consisting of 4 semesters for those who show a mechanical bent of mind and are willing to work as operators and a servicing technologists for typewriters, duplicators and other office equipments, has good scope in this district.

The portions to be covered may include Basic Electrical Engineering practice, Engineering material science, introduction to shaping lathe works, elementary electrical, circuits, and drawings, mill-rights courses with the necessary background of physics, mathematics engineering drawing etc.

3. TE 3.01 Electrical Wiring & Servicing of Electrical appliances

The statistical figures of electricity supply and consumption is indicated in statement 29 and the increase in the number of villages electrified is found in statement 30.

Belgaum district compares poorly and ranks 16th in the state in terms of percentages of towns and villages electrified. As such, there is much to be done in rural electrification. Besides, village electrification, the power supply is given to lift irrigation scheme. High tension consumers, public lighting, domestic and commercial power and AEH installations are also on the increase year by year. There is huge demand for power supply in the industrial sector.

A large number of technicians who can, with competence, do electrical wiring and services to electrical appliances normally associated with domestic, agricultural and commercial enterprises are required to be trained to provide the necessary services. This is a growing field of activity and persons trained in this field and certified by the Inspectorate of the Electricity Board can seek employment as Electricians and Electrical maintenance assistants as also get self employed.

One or two courses (25 students in each course) can be started in Belgaum District to meet the man-power needs at the middle-level in this area.

4. Ag 1.01 Poultry Science

The environmental conditions prevailing in the District are well-suited for poultry development. There are immense possibilities for the development of poultry both as Back-yard ventures, poultry for domestic purposes, and on commercial lines as well.

Poultry keeping is becoming more and more popular especially among farmers and unemployed educated youth. The present needs of poultry farming in the district is the adequate supply of high-yielding strains of poultry at reasonable rates. The poultry keepers are to be properly educated in the maintenance of farms and attending to the control of poultry diseases. Feeding is another aspect of poultry farming which should be taken care of. The Government also has several plan-schemes for intensive poultry development in the District and thus raise the average yield of eggs.

While working out the credit plan for poultry development in the district, it has been found that a unit comprising of hundred layers birds, seems to be economically viable propositions and the total credit needs for 1976-77 was estimated to be Rs 14.38 lakhs.

One course with 25 students can conveniently be, started in any one of the selected places in the district.

5. Ag. 1.02 Dairying

Belgaum District has a sizeble numbers of milch animals (statement 15) with the intensive fodder development schemes, of the Depts., there is good scope for Dairy Development schemes. The quality and quantity of milch animals could be improved with the development of farms.

In the District, many dairy developmental programmes have been undertaken. A concept called "the milk shed areas" has been formulated for better organised and improved milk distribution system. The credit needs for Dairy Development for different years for the following periods are indicated below.

Credit Requirements for the Purchase of Milch Animals

Year	Physical requirements (Cumulative)	Total credit requirements* (Rs. lakhs)	Credit Requirements at 80% of the total requirements (Rs. lakhs)
1976—77	8000	200.00	160.00
1977—78	9000	225.00	180.00
1978—79	10000	250.00	200.00

*At Rs. 2500 per animal, which is inclusive of transport and immediate contingency expenses.

The need for well-qualified technicians to look after all the facts of this important field of economic activity on scientific lines is growing day by day. Hence a specially adopted course consisting of Dairy Husbandary, Dairy Technology, Dairy Chemistry, Dairy Engineering, Dairy Economics, and Dairy Book keeping has good scope in this District. There is considerable scope for self-employment and practicing it as an auxilliary agriculture.

6. Ag. 1.03 Sericulture

There has been some progress in the district in the recent years and the department of sericulture is affording several facilities to increase the area under mulberry cultivation so as to sugment silk production. The soil climate in many blocks, especially those which are in the DPAB regions are even better suited for the development of sericulture than those traditional areas of old Mysore. The credit requirements for the district is indicated below.

Credit Requirements of Sericulture

Credit Requirements of	Cost (%)	No. of units	Total Requirements (Rs, Lakhs)
1. Silk Reeling Units	5000	50	2.50
2. 4 Acre Mulberry Plantations	25000	20	5.00
Total			7.50

A two year course can be introduced in areas where mulberry plantation exists and the local youth who are knowledgeable in the field encouraged to take up scientific study of the several facets of this industry to establish new heights of excellence in both production and marketing the product. One course of 25

students can conveniently be organised in the areas indicated above in the District.

7. Ag. I.05 Co-operation

The growth of co-operative movement in Belgaum district is indicated in statement 31. There are as many as 29 different varieties of societies. In terms of extensions of banking facilities, in many rural areas, the co-operative institutions have been quite successful in opening either branches or pay-offices in many parts of the district. In the field of co-operative marketing, it is observed that marketing societies account for a good portion of the total agriculture commodities marketed in the district.

With the advent of mechanised farming by the medium and big cultivators the demand for farm implements is likely to go up during the next five or ten years. This would further increase in view of the future irrigation developmental potential envisaged by Ghataprabha and Malaprabha projects.

There is much encouragement for opening Agro-services centres and custom services centre in different blocks of the district on phased basis.

A large number of personnel fully trained in several aspects of co-operation, accounting, auditing, book keeping, banking etc. are required and hence, one course of 25 students, may be started in suitable place, in the district.

8. Ag. I.06 Pesticides, Fertilisers & Weedicides

The statistical information of land utilisation, land holdings, area under different crops, credit requirements of agricultural machinery, area under intensive agricultural area programmes, area under high-yielding varieties, area irrigated by source and irrigation pump-sets are available in statements from 8 to 14.

The department of agriculture and the co-operatives have been supplying pesticides and improved seeds. In view of the future irrigation potential, a large percentage of cultivated crops specially under jowar and wheat, has to be covered under high-yielding variety programmes which warrants huge quantity of fertilisers, pesticides and seeds of improved varieties.

Every intelligent farmer has come to understand the importance of chemicals in fighting diseases, destroying weeds which affect the crops as also increase his farm output by resorting to fertilisers. There is a silent revolution in the rural areas. It is easy now to enlist the support of the farmers to modern technological advances in farming methods.

However, persons who are properly trained in the application and scientific use of chemical are not available in good numbers and there is growing need for such personnel among the educated youth who find employment back in the villages either on their own or as villages level officers in several Departments of the Government. Taluk Development Committees etc. The knowledge is vital for proper and economic use of chemicals as input for increasing the farm output and avoid wastefulness.

At least one course of 25 students should necessarily be started in the District where infrastructural facilities of training are available.

Health Courses

There are 88 hospitals and dispensaries (including TDB & Municipal) and 21 Primary Health Centres with 1289 beds. 63 family planning centres are working in all the talukas of Belgaum District.

Though Belgaum and taluk headquarters are provided with medical facilities, there are many centres devoid of such facilities. The field survey of taluks reveals that there is dearth with regard to the supply of drugs and medicines in the rural areas. In view of this a few medical shops can also be set up. The credit needs of rural Doctors (equipment and machinery for rural dispensaries) is estimated to be Rs. 15 lakhs at the rate of Rs. 15,000 per unit for hundred units.

Discussions with Medical Authorities reveal that certain latest techniques in medical record maintenance are not found in the northern Karnataka region. The sophisticated machines like X-Ray machine etc. are being handled by persons without suitable training in the hospitals. This has got adverse effect on the maintenance of those machines and also the results obtained from them. Training for certain middle level categories like X-Ray technician, laboratory technician etc. are not found in this area and therefore, the medical services have been deprived of the contributions of such technical know-how in this district

9. HE I.01 Laboratory Technician

This course should include the study and training in different branches of pathology, micro-biology and Biochemistry. Personnel with such training are in increasing demand since they are required in all the Hospitals (both teaching and non-teaching) as also in District and other Hospitals. There is considerable demand for such Technicians in private nursing homes and laboratories. They can also be gainfully employed in Industrial undertakings and dispensaries maintained by city Municipalities and other corporations.

Trained technician's report will help any medical establishment to correctly diagnose a disease and its methodical

treatment thereafter. It will help diagnosing serious cases early and proper treatment in time. Such personnel may even be recommended to be included in all primary Health Centres also.

10. HE 1.03 X-Ray Technician

Since Medical facilities under both private and public, are expanding at a rapid rate throughout the country, there is a clear necessity for trained X-Ray Technician (Radiological Assts) in ever increasing numbers to answer this growing need at most of the hospitals.

The course envisages full scale training in the several allied fields of operating X-Ray units so that a candidate becomes proficient in producing good and clear ray of any part inside the human body so as to help in confirming the diagnosing of the diseases. They are also trained in operating some special sophisticated equipment to produce exposures of the internal, organs by the use of special dyes.

11. HE 1.04 Medical Record Technician

There is a clear necessity to maintain detailed and accurate records, regarding patient's care and treatment rendered to them, in the Medical Colleges hospitals, all other hospitals (both teaching and non-teaching) and in Medical Institutions by the State Govt. as well as by private organisations and individuals (Nursing Homes). Such records are therefore, to be maintained in a manner that they can be depend upon for accuracy. These records have proved to be of great value to:-

i) patient, ii) the doctor, iii) the teacher and the students
iv) the hospital, v) the research worker, vi) the Health authorities & vii) the Government and viii) the country.

The information derived from these records, not only present a true picture of Health conditions in the country but also is extremely valuable for planning and assessment of National Health programmes.

In the West, realisation of this importance of Medical Records has resulted in efficient organisation of Medical Record Departments and the training of personnel for work in them. So to say, the Medical Record Department has become an indispensable part of every hospital, especially in the U.S.A. In our country, realising the importance of Medical record department for the Hospital administration patient care, medical research, statistics, evaluation etc., increasing number of medical record departments are being established,

There is a great dearth of trained personnel for keeping, maintaining, and analysing these important records in a manner both accurate and acceptable to the needs of the State, the Department of Health & Family Planning Services, public and the Judiciary and the Indian Medical Council. The candidates would be trained methodically, both in theory and practical aspects of the Medical and Medico legal records and allied fields of the department of health and family planning services, so that, after their completion of the courses successfully, their services, could be best utilised in the fields detailed above for the benefit of all concerned.

12. HE 1.06 Multipurpose Basic Health Workers

The Health and Hygiene conditions of the rural masses has to be improved on top priority basis. A host of para medical personnel to tackle this serious problem of environmental sanitation to prevent various communicable diseases and improve the health of people is required to be trained. Such personnel are also required to motivate the general public about the seriousness of the problem of population control, their nutritional deficiencies and other

such welfare measures which improve the environment and health of the rural population.

The students of this course have to undergo field training at the Primary Health Centres for a stipulated period.

In view of the policy of the government for expanding rural health programmes the scope for trained personnel in these courses for employment is immense. One course can conveniently be started in each district to meet the demand of trained persons

COURSES IN BUSINESS AREA

Introduction : There has been considerable development in the trading activities in the district during the recent years due to the progress of the primary and secondary sectors. It has been found that the developing rural areas have enough potential to establish new trading activities. As per the latest banking statistics of Belgaum district, there are about 6128 retail trading and small business concerns which have received financial assistance from commercial banks.

The importance of training of middle-level personnel in the area of business has not been, yet realised in our country. If business is to grow on modern lines and cater to the needs of the growing societies in different areas, technical know-how should necessarily creep with the business world. There is much scope for such middle-level trained persons for self-employment or to get themselves employed at the middle-level. Some of the useful courses that can be started in Belgaum District are the following.

13. B I.02 Materials Management Technology

The importance of Material Management Technology has not been understood by majority of the people. A two year training programme of the Certificate level is planned to acquaint the students with the methods of materials management, transportation and allied problems of handling stores. The students in this course are expected to know about the principles of management, elements of accountancy, stores management, purchasing management, productivity techniques, statistics, industrial relations, inventory management traffic and transportation management, quality assurance and law in respect of taxes, excise duties, insurance.

A basic knowledge is quite necessary if the business is to be handled on scientific lines and thus prevent wastage and stagnation in the business world. There is good scope for self-employment as well as employment at middle level in the existing industrial organisations which are plenty in number in Belgaum District. One course consisting of 25 students can conveniently, be organised in Belgaum Dist.

14. B I.04 Accountancy and Auditing

A two year programme of training at the pre-university level is planned to acquaint the students with the methods of acquainting with the methods of accounting and auditing; The students taking up this course will be taken around a few major and minor industries as well as Chartered Accountant's firms to acquaint themselves with accounting and auditing methods during the first few weeks. Their syllabus includes commercial Arithmetic and Statistics, Business Organisation and Commercial information, elements of law elements of costing, auditing, costing elements of taxation etc. Further after the Second Semester examination, a month will be spent in a firm or in an industry studying various aspects of accounting only.

In the III & IV semesters, two or three days in a week are to be spent in the Audit Dept. of an industrial undertakings and Chartered Account's firms respectively. After the Fourth semester examination, the candidates shall take intensive practical training in an approved industry or a Chartered Accountant's firm for a period of 2 months and submit daily report and take the examination at its end, which counts for evaluation of the course. All the relevant areas of auditing will be covered to an extent and in a manner required for developing the required sense of responsibility in the field of auditing.

Such personnel can be employed under the Chartered Accountant in any industry or in small business organisations to improve the existing accounting procedure in the business world.

14. B 1.05 Accountancy and Costing

A two year training programme at the Pre-University level is planned to acquaint the students with the methods of costing and accounting. During the first two weeks the students will be taken round one or two manufacturing industries to get the nature of various departments and their working. Their syllabus includes accountancy I & II consisting of commercial arithmetic and statistics General Commercial knowledge, Elements of Law, Elements of Taxation, Factory organisation Costing of Materials, Labour etc. After the second semester examination the students have to spend two weeks in Stores, Time-keeping and production Planning departments of an industrial undertaking to know the working of these departments.

In the third and fourth semesters, the students have to devote one or two months respectively in Costing Departments at an industry or two day in a week all throughout the semesters if it is so convenient for industry. Costing Department includes material costing, material accounting and other related accounts section of the department. After the fourth semester examination, the students shall take intensive practical training in an

approved industry for a period of two months and submit daily reports of work and take examination at the end, which counts for evaluation as per regulations.

Training in this area is not available to meet the requirements of the business organisations which aim at systematic methods of accountancy and costing.



NEW COURSES SUGGESTED

Tobacco Technology

Groundnut, cotton, maize and tobacco are the major crops (cash) which are raised in Belgaum district. The tobacco produced in the district especially "Nippani type" is known for its quality. The total area under tobacco cultivation is 22,919 hectares i.e. 2.40% of the total area. The yield per Hectare is 492 and the total production is 112791 tonnes. According to the technical report prepared in 1969, on maximum agricultural production in the district, jowar and tobacco are classified as crops grown in larger areas; but with low productivity ratios. Rapid steps are being taken to improve the situations as a result of which, the targets for the 1977-78 for tobacco cultivation are as follows.

Area to be sown : 2,23 G.

Cost of cultivation : Rs. 7647.00

Probable yield in quintals : 62630 seedlings.

Expected receipts : Rs. 14250.00

The crop loan requirements for tobacco cultivation are indicated below.

	$\frac{1976-77}{4710}$		$\frac{1977-78}{6280}$		$\frac{1978-79}{7850}$
Tobacco	lakhs		lakhs		lakhs

8. There are 62 establishments classified under Small-scale industries in the district. No specialised training is provided in this area. One course with 25 students on Tobacco technology can be started in the Nippani area to spread technical know-how

through the children of the families engaged in the tobacco cultivation and processing and also for the benefit of those who are interested in it.

The portions under Biology, Chemistry, Mathematics, Marketing proceeds, etc. may be decided in consultation with the experts in the field.

Oil Technology

Oil seed crops account for a major share in cash crops in the district. Oil seed development scheme is in operation in this district. The statistical figures of oil seed crops in Belgaum district are indicated below.

Crops	Area in Hectares	Percentage of total cultivated area	Yield rate M./Hects	Total production (M. Tons)
Groundnut	126728	13.73	748	94793
Cotton	64232	7.03	140—806	52320

The other important oil seeds are castor, sun-flower, soyabean saf flower., Comprehensive oil seeds development scheme has been undertaken by the Agricultural Department by way of programmes for demonstration, in-services training and assistance to the farmers.

The loan requirements for cotton and groundnut are indicated below.

	Rs. in lakhs.		
	1976—76	1977—78	1978—79
Cotton	86.68	115.58	144.47
Groundnut	112.16	149.54	186.93

There are 18 oil mills—classified under small—scale industries in the district. The work is also being taken up under Village and Cottage Industries scheme. Thus, there is large scope for persons trained in Oil Technology for self-employment and employment in this expanding area. The existing village practices in extraction of oils can also be modernised with greater production through these trained persons at the village level.

The portions under Biology, Chemistry, Mathematics, Mechanical Engineering etc., for framing the syllabus can be decided in consultation with the experts in the field.

Textile Technology

The area under cultivation of cotton in Belgaum is 64932 Hectares i.e. 7.03% of the total cultivated area. The cotton development scheme undertaken by the Agricultural Department aims at increasing the area and the production of cotton by following package of practices and growing suitable varieties based on the agra-climatic conditions. Emphasis is being given

- (a) on bringing large areas under irrigation, in command areas and other sources of irrigation ;
- (b) on increasing the coverage under Hybrid cotton (Varalaxmi) both in irrigated and Transitional tracts ;
- (c) Replacing the Laxmi and Hampi variety under irrigation with Varalaxmi ;
- (d) Diverting cotton area in the scanty rain-fall tract to other profitable crops like Saf flower.

Considering the fact that handloom industry provides employment to more than 30,000 people in the District it attains that next important place after agriculture. There are about 16,000 weaving families having 18,000 handlooms.

Also there are 158 registered weaves Co-operative societies in the District and about 10,000 looms come under the co-operative trade. The State Government has taken interest in helping the industry by formulating the number of promotional and developmental schemes.

There are about 3,300 power looms units in the district, providing employment to 6,000 persons. There are about 60 Hoseries units in the District providing employment to more than 8,000 persons. Gokak Mills Ltd. Gokak is the major industry under textiles.

Sheep-rearing also has got good scope a profitable venture. The total number of sheep according to 1972 census is 421133.

The Credit needs of Sheep-rearing scheme are indicated below.

Year	Units	Estimated capital investment at Rs. 2750/- per unit (A)	Rs. in Lakhs	
			Subsidy at Rs. 7.50 per unit (B)	Credit component at Rs. 200 per unit (A-B)
1976-77	200	5.50	1.50	4.00
1977-78	200	5.50	1.50	4.00
1978-79	300	8.25	2.25	6.00
V Plan	700	19.25	5.25	14.00

In addition to this, fibre, forest products and agricultural products are also being prepared and they have good potential for employment and self-employment.

The courses in textile technology can profitably be undertaken in one or two selected areas to induce technical know-how and also provide ample scope to the enterprising youth for employment and self-employment in the existing establishments.

The portions in Biology, Chemistry, Mathematics, Agricultural Engineering etc. for framing the syllabus could be decided in consultation with the experts.

Leather Technology

The live-stock population, according to the report on programme planning of Agriculture Department, is indicated below.

No. of cattle	:	515543
No. of Buffalows	:	423793
No. of Goats	:	356935
No. of Sheep	:	421133

The live-stock wealth of the District gives scope for the establishment of a number of animal resources based industries. The suggested industries are bone and flesh meal unites, wool weaving and spinning, leather and footwear units.

There are ten 'Leather goods including tanning establishments' under Small-scale Industries.

Under 'Village and cottage Industries, 2090 'Leather Units' with an employment of 3395 persons have been identified. The statistics under 'Tanning' are 232 units with 405 persons employed in 12 concentrated centres.

The credit requirements of the existing small-scale industries under "leather and Rubber Products" are indicated below.

<u>1976-77</u>	<u>1977-78</u>	<u>1979-78</u>
Rs. 2.01 lakhs	Rs. 3.00 lakhs	Rs. 4.00 lakhs

The credit requirements of the proposed small scale industrial units for Leather and Rubber products are the following.

<u>1976-77</u>	<u>1977-78</u>	<u>1978-79</u>
Rs. 0.35 lakhs	Rs. 0.35 lakhs	Rf. 0.45 lakhs

One course may be conducted in a selected area in Belgaum district to utilise the leather resources on scientific lines. This has good employment potential for limited numbers. The syllabus may include selected topics from Animal Husbandry, chemistry, Mechanical Engg. etc.

Mineral Technology and Administration

Belgaum district has been endowed with extensive deposits of minerals like, the Dharwarian schists, the Kaladagi series and Granite complex, which are used as building materials and for the manufacture of slate. Other important minerals are limestone, bauxite, china clay, felspar, quartz, manganese ore, iron ore and to a little extent gold.

Bauxite, which is used for manufacturing aluminium is found abundantly over a continuous and an extensive stretch of 50 to 75 miles in the hilly regions of Boknoor, Bijagarni, Karlum, gamboti, Rajahansgad, Kalasidnigad and other places.

Indian Aluminium Co. Ltd. Belgaum is the large scale industry producing Aluminium metal. The total employment is 1143. The industries which can be started on the basis of the available mineral ore aluminium utensil making firebricks, plaster of paris, tiles and bricks storewares, building materials and certain lime stone based industries like colour, and dye stuffs.

The technically feasible and economically viable small scale industries identified which can be set up in the District are

indicated as follows.

Type of industry	Total initial investment per unit Rs.	Phasing of the proposed units.		
		76-77	77-78	78-79
1. Aluminium Utensils	2,00,000/-	2	3	3
2. China clay Tailor's chalk, slate pencils etc.	10,000/-	—	1	1
3. River sand Glass making.	5,000/-	2	—	—
4. Limestone-bleaching powder etc.	5,000/-	2	3	1
5. Tiles and bricks mfg.	15,000/-	2	2	3

Discussions with knowledgable persons of the Department of Geology and Mines, reveal that there is scarcity of persons with practical knowledge of mineral and its administration.

One course consisting of 25 students may be started in some selected institutions and such trained persons will have scope for self-employment and employment in Geology and Mines Department. The portions to be included from Geology, Mines, Chemistry, Physics, administration etc. may be decided in consultation with experts for farming the syllabus.

6. Forestry and Wood Products

The total forest area in the District is 1,92,070 hectares. Most of the areas in and around Khanapur blocks are under evergreen forests. The major forest produce in the district are teak-wood, timber, teakpoles, bamboos, and sissum logs etc. The minor forest produce includes roshs grass, tondul leaf, tamarind fruits, honey wax etc.

There are 50 wood working saw mills and others under small scale industries. 28 wood and wood products units

have been registered upto 31-7-1973. There are 601 'Cane and bamboos' units 569 'Mat weaving units' classified under village and cottage industries.

The district abounds in forest wealth which provides enough raw materials for establishing a number of industries like wood sawing, soap manufacturing, shikekai pulverising, wood seasoning plants, activated carbon, and charcoal units, a number of saw dust based units, manufacturing dolls, hard-board, educational toys and brickets. There is scope for starting small units like honey bee wax and candle making industries also (The statistical details are too lengthy to indicate here). Much encouragement is given by the village and cottage industry organisations in the area.

One course consisting of 25 students may be introduced in some selected institutions and such trained persons will have ample scope for self-employment and employment in the forest department as Forester and Guards

The portions to be included in Biology, Chemistry, Mathematics, Mechanical Engineering may be selected by experts in the field for framing the syllabus.

7. Printing and Book Binding

There are 50 printing and book binding establishments under Small-scale Industries in Belgaum District. No training facilities are available in this area. The credit needs of the existing establishments are indicated below;

1976—77	Rs. 3.02 lakhs.
1977—78	Rs. 3.78 lakhs.
1978—79	Rs. 4.90 lakhs.

The credit requirements of the proposed small scale Industrial units under printing are indicated below.

1976-77	Rs. 3.60 lakhs (6 units)
1977-78	Rs. 4.80 lakhs (8 units)
1973-79	Rs. 3.60 lakhs (6 units)

One course in Printing and Book Binding may be started in Belgaum District where these printing units are found in greater numbers.

There is scope for absorbing such limited trained persons in the existing units and there is also scope for starting fresh units by enterprising candidates trained in this area.

8. Tailoring, Machine Embroidery and Karnataka Kasoothi

Introduction of one such course may be considered for girls in one selected area in Belgaum district. This is specially suitable for such girls who choose home-making as their career. The experts in Karnataka Kasoothi have good employment potential.

The syllabus may be framed in consultation with the Polytechnic having courses in Tailoring and experts in Karnatak Kasoothi.

6. Plantation Crops and Management

During the IV Plan a number of horticulture developmental schemes have been undertaken in the district, most of which have fallen short of actual achievements and targets. During the V Plan also, an ambitious programme was chalked out to plant tree crops, growing of vegetables and fruits and other horticultural products. The malanad tracts of Belgaum of Khanpur (taluks) can be exclusively taken up

for horticultural development. The improved irrigational facilities should make it possible to extend schemes to other parts of the district also. The credit plan for the development of horticulture is indicated below.

Credit Plan for Horticulture Development Schemes

Schemes	Rs. Lakhs		
	1976—77	1977—78	1978—79
1. Fruit Development	9.80	13.07	16.35
2. Cashew Development	2.20	2.95	3.68
3. Vegetable Development	2.34	3.12	3.90
4. Coconut Development	2.37	3.15	3.95
5. Intensive Production of Vegetables and Quick Growing Fruits	2.48	3.31	4.15
6. Subsidiary Food Crops	1.29	1.71	21.13
7. Other Crash Programmes	0.96	1.28	1.58
TOTAL	21.44	28.59	35.74

These facts indicate that a course in Plantation crops and Management can profitably be undertaken in a selected area to induce technical know-how existing infrastructure at the rural level. This will also provide ample scope to the enterprising youth for self-employment.

10. Scientific - Agriculture

About 75 percent of the working population is engaged in agriculture; and it is the mainstay of the economy of the district. The broad objectives of the V Five year plan for improving Agriculture were the following:

- a) Bringing additional acreage under cultivation through land reclamation and land levelling;
- b) Cultivation of more acres under cash and other non-food crops of commercial importance;

- c) Providing irrigational facilities for the cultivation high yielding variety crops ;
- d) Increasing the cropping intensity ;
- e) Adoption of better farm management a techniques ;
- f) greater application of chemical fertilisers and plant production measures.

It is too unviedly to present the statistical details of financial assistance that will flow into agricultural sector in future. Agriculture in the rural sector has been taken up on 'top priority' basis. The efforts of the Department of Agriculture for providing the required trained manpower by way of 'farmers' programmes etc. may be insufficient in view of the probable future demand. One course consisting of 25 students can conveniently be organised in Belgaum District to supplement the programmes of the Dept. of Agriculture.



ANNEXURE III

A. ACKNOWLEDGEMENTS

1. Deputy Commissioner, Belgaum District, Belgaum.
2. District Statistical Officer, Shahapur, Belgaum.
3. Deputy Director of Industries and Commerce, Shahapur, Belgaum.
4. Deputy Director of Agriculture, Shahapur, Belgaum.
5. District Census Officer, Belgaum.
6. District Planning Officer, Belgaum.
7. Senior Assistant Director of Animal Husbandry and Live Stock, Belgaum,
8. The Conservator of Forests, Chavatigalli, Belgaum.
9. Inspector of Factories, Camp., Belgaum.
10. District Employment Officer, Fort, Belgaum.
11. Regional Transport, Officer, Bus stop, Belgaum.
12. Executive Engineer, Karnataka Electricity Board, Belgaum.
13. Registrar of Co-operative Societies, Camp, Belgaum.
14. Senior Assistant Director of Fisheries, Hindwadi, Belgaum.
15. District Horticultural Officer, Belgaum.
16. District Marketing Officer, P. B. Road, Belgaum.
17. Deputy Director of Youth Services, Sadashivanagar, Belgaum.
18. District Health and Family Welfare Officer, Vadagav, Belgaum.
19. Information and Publicity Officer, Belgaum.

20. District Social Welfare Officer, Belgaum.
21. Geological Survey of India, Belgaum.
22. Department of Mines and Geology, Tilakwadi, Belgaum.
23. Khadi and Village Industries, Board, Khadebazar, Belgaum.
24. District Development Assistant, Belgaum.
25. Deputy General Manager, K.S.R.T.C., Belgaum.
26. Administrator, Malaprabha & Ghataprabha Projects, Belgaum.
27. Syndicate Bank, Maruthi Galli. Belgaum.
28. Deputy Director of Public Instruction, Belgaum.
29. Joint Director of Public Instruction, Belgaum Dn. Belgaum.
30. Director of University of Agricultural Science, Dharwad.
31. Vice Chancellor Karnataka University, Dharwad.
32. Karnataka State Secondary Education Examination Board, III Diagonal Road, Bangalore-4.
33. Director, Pre-University Education, Mysugar Buildings, Bangalore.
34. Principal of the Junior College in Belgaum District.
35. Divisional Information and Publicity Officer, Belgaum.



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P.T.O.

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**THE SCHEME OF
VOCATIONALISATION
IN KARNATAKA**

Department of Vocational Education

Government of India has formulated a scheme for the Vocationalisation of Higher Secondary Education. Accordingly, a separate Department of Vocational Education was created in the State during July 1977 for the efficient implementation of the centrally sponsored scheme.

Vocationalisation of Higher Secondary Education has been designed to offer the student greater scope for employment/self-employment while building up skills at the middle level of management and reducing the often meaningless scramble for collegiate education.

During 1977-78, a pilot scheme was introduced in 3 districts of the State namely, Bangalore, Dharwar and Dakshina Kannada. As many as 13 institutions were identified in the private sector where the managements showed considerable interest and enthusiasm in implementing these courses. In addition, the existence of suitable infrastructure in the form of trained staff or equipment and other facilities was considered desirable. A backward and rural area which needed strengthening of educational facilities of the vocational type, if available, was selected. One Women's College was also selected for implementation of programme.

21 Vocational courses covering all the major areas of economic activity such as Agriculture, Technical Education, Health, Banking and Commerce were identified and introduced in suitable combinations where the infrastructure and other facilities would ensure their successful implementation. Details of the courses, colleges and enrolment are given in Annexures 1 and 2.

Finances

The Scheme of vocationalisation at XIth and XIIth standards is sponsored by Government of India. Government of India assistance is made available in the following manner :

(1) For conducting District Vocational Surveys-
Rs. 10,000 per district.

(2) Assistance for salary of District Vocational Education Officer at Rs. 15,000 per annum per Vocational Education Officer (3 Officers)

(3) Assistance for salary of District Vocational Education Officers for implementing the scheme at Rs. 15,000 per annum for full year in three district (3 officers)

(4) Expenditure towards salary of Vocational Education Officer (Examination and Survey)

(5) Assistance to Colleges for starting Vocational Courses :

(i) for equipment at Rs. 11,250 per annum for each course ; and

(ii) salary for 2 teachers at Rs. 7,500 per annum for each teacher for each course.

The Government of Karnataka has agreed to meet the rest of the approved expenditure on hundred per cent grant-in-aid basis :

(1) Expenditure towards salary, travelling and other incidental expenditure for the establishment of the Director of Vocational Education in Bangalore.

(2) Expenditure towards salary of supporting staff for :

- (a) The Director of Vocational Education.
- (b) District Vocational Education Officers, and
- (c) Vocational Education Officer (Examination and Survey)

(3) Expenditure towards salary of Additional Non-Vocational Staff, required to run the Vocational Courses.

(4) Expenditure towards consumables and other miscellaneous expenditure.

(5) Expenditure to meet transport facilities for students/teachers, etc., to and from the Institution to the places where training is arranged.

(6) Expenditure towards one Typist-cum-clerk and one helper for each of such Institution.

(7) Expenditure towards conduct of examinations, etc., and payment of professional and special services.

(8) Expenditure towards capital grants to certain institutions where the total requirement exceeds that sanctioned by Government of India in this behalf.

In addition, students opting for Vocational Courses are considered along with the students of other academic courses for purposes of grant of various fee concessions.

Students Enrolment

Against an anticipated strength of 1,200 as many as 1,030 had been enrolled by the end of 1st Semester. The number of students under training for each of the vocational courses introduced during 1977-78 is indicated in Annexure 2. For the training programme shown in Annexure 3, the following categories of teachers (full time, part time teacher, craft teacher etc.) are employed.

District Vocational Surveys

9 Districts in the State have been chosen for District Vocational Surveys. 3 more districts will also be taken up for conducting district survey by 31st March 1978. These reports reveal the main thrust of the economic activities of the community in the district. The existing job opportunities and a forecast of job opportunities on the basis of developmental activities envisaged by the several Departments of Government and the private sectors are also assessed. This information helps to identify the vocational courses suitable for implementation in a particular district.

Almost all the colleges have established close liaison with factories, industries, banking establishment, engineering contractors, Housing Boards, Health, Agriculture, Animal Husbandry Departments for imparting practical training to these students.



PROGRAMME FOR THE SIXTH PLAN PERIOD

The remaining 10 Districts of Karnataka are being surveyed to determine the major economic activity, existing at present and planned for them in the near future. The report will include the probable areas of job opportunities that are likely to be generated in the coming years. It will also include areas in which the local student population is likely to be interested in getting trained to answer a definite felt need in the community depending upon the nature of services required in the various sectors namely, Technical, Agriculture, Para-Medical Business and Banking.

After the survey reports are compiled, recommendations would be sent up to Government for the implementation of the scheme of Vocationalisation in some of the selected colleges in each district. As per the advice of the Man Power Planning Section, Government would decide on the number of colleges to be chosen depending upon their suitability for introducing vocational courses. It is proposed to recommend atleast 8 Institutions to be taken up for the implementation of the scheme for 1979-80 in each of the 10 Districts.

Vocationalisation is by and large acceptable to the population of Karnataka as revealed by the progress of the pilot scheme upto now. It is expected to be enlarged in the coming years so as to benefit all the Talukas in the State. By the end of the Sixth Plan period, it is hoped that Vocationalisation would be able to wean out about 20% of the students passing the X Standard from the academic stream into more useful avenues of an increasing number of vocations for which courses are being planned.

ANNEXURE 1

List of Vocational Courses introduced and student strength in each courses—1977-78.

<i>Courses</i>	<i>Total</i>
1. Accountancy and Auditing	.... 67
2. Accountancy and Costing	.... 49
3. Building Construction Technology	.... 144
4. Banking	.... 74
5. Clock and Watch Repair Technology....	34
6. Co-operation	.... 57
7. Dairying	.... 22
8. Electrical Wiring and servicing of electrical appliances.	.... 172
9. Fisheries	.... 24
10. Multipurpose Basic Health Worker (Male)	.... 34
11. Material Management Technology	.... 75
12. Medical Record Technician	.... 30
13. Optician and Refractionist	.... 4
14. Photography	.... 22
15. Physio Therapy and Occupational Therapy Technician	.... 17
16. Psychiatric Assistant	.... 10
17. Pesticides, Fertilizers and Weedicides	.... 62
18. Servicing Technology	.... 43
19. Sericulture	.... 43
20. X-Ray Technician	.... 4
21. Laboratory Technician	.... 43
Total :	.... <u>1,030</u>

ANNEXURE 2

Number of boys and girls enrolled for Vocational Courses during—1977-78.

1	1	3	4
<i>Name of the College</i>	<i>Courses</i>	<i>Boys</i>	<i>Girls</i>
1. Sri Jagadguru Renukacharya Arts and Science College, Bangalore	1. Building Construction Technology	25	....
	2. Electrical Wiring and Servicing of Electrical Appliances	25	....
	3. Accountancy and Auditing	25	....
	4. Accountancy and Costing	25	....
2. Rural College, Kanakapura, Bangalore Dist.	1. Building Construction Technology	21	....
	2. Servicing Technology	19	....
	3. Photography	11	....
	4. Sericulture	24	1
3. N.M.K.R.V. College for Women, Jayanagar, B'lore	1. Clock and Watch Repair Technology	....	10
	2. Photography	....	11
	3. Physio-therapy and Occupational therapy Technician	....	13
	4. Psychiatric Assistant	....	6
4. M.E S. College, Bangalore	1. Multipurpose Basic Health Worker (Male).	11	....
	2. Banking	14	11
	3. Materials Management Technology	19	6
	4. Laboratory Technician	10	9

Name of the College *Courses* *Boys* *Girls*

	1	2	3	4
5	St. Alloysius College, Mangalore	1. Building Construction Technology	24	....
		2. Electrical Wiring and Servicing of Electrical Appliances	25	....
		3. Fisheries	24	....
		4. Pesticides, Fertiliseres and Weedicides	22	....
6.	M.G.M. College Udupi	1. Building Construction Technology	22	....
		2. Electrical Wiring and Servicing of Electrical Appliances	25	....
		3. Laboratory Technician	21	3
		4. Physio therapy and Occupational therpy technician	4	....
		5. Medical Record Technician	6	....
		6. Psychiatric Assistant	4	....
		7. X-Ray Technician	4	....
		8. Optician and Refractionist	4	....
7.	Viveka College Kota (S.K.)	1. Co-operation	11	11
		2. Pesticides, Fertilisers and Weedicides	17	....
		3. Banking	12	12
		4. Accountancy and Auditing	15	8
8.	Vivekananda College, Puttur	1. Co-operation	12	5
		2. Accountancy and Auditing	10	9
9.	B.A.S G. Science Vidyagiri College Dharwar	1. Building Construction Technology	25	....
		2. Electrical Wiring and Servicing of Electrical Appliances	25	....
		3. Materials Management Technology	25	....
		4. Accountancy and Auditing	21	3

Name of the College *Course* *Boys* *Girls*

	1	2	3	4
10.	Municipal Composite Junior College, Gadag, Dharwar District	1. Building Construction Technology 2. Electrical Wiring and Servicing of Electrical Appliances 3. Medical Record Technician 4. Multipurpose Basic Health Worker (Male)	24 25 25 23	................
11.	Mahantaswamy Arts and Science College Haunsbhavi, Dharwar Dist.	1. Electrical Wiring and Servicing of Electrical Appliances 2. Clock and Watch Repair Technology 3. Sericulture 4. Co-operation	25 24 18 18	................
12.	K.E. Board Vidyaranya K.S. School, Dharwar	1. Dairying 2. Servicing Technology 3. Electrical Wiring and Servicing of Electrical Appliances 4. Pesticides, Fertilisers and Weedicides	22 24 22 23	................
13.	Basel Mission Composite Junior College, Dharwar	1. Banking 2. Materials Management Technology	23 23	2 2

Total : 908 122

ANNEXURE III

List of Teachers employed for Job-oriented Diploma Courses

Vocational :-

1. Full-time	....	26
2. Part-time	....	140
3. Worker Teacher	....	11
4. Helper	....	11

	....	188
	....	32

Total :	....	220



ANNEXURE IV

Regulations, Courses of Study of Scheme of Examinations for Job-Oriented Pre-University Diploma Courses

1. Qualifications for admission :

a) Admission to all the Vocational courses shall, in general, be open to all students who have passed,

- i) The S. S. L. C. Examination conducted by the Karnataka Secondary Education Board; or,
- ii) The Indian Certificate of Secondary Education Examination conducted by the Council for the Indian School Certificate Examination; or
- iii) Any other Examination recognised as equivalent to the Karnataka S. S. L. C. Examination.

b) Admission shall be made on the basis of merit in the qualifying Examination and an aptitude test prescribed by Government.

2 Duration of the Course :

- i) The course of study shall extend over a period of 2 academic years comprising of four semesters.

- ii) The duration of the course, the scheme of teaching, training and Examination in subjects listed under PART-I of the course shall be common to both Academic and Vocational streams.
- iii) The teaching, training and Examination of subjects, under PART-II of the Vocational courses, shall be arranged under a SEMESTER SCHEME Consisting of 4 Semister of 4 months each.
- iv) The scheme shall also include period of intensive practical training in vocational courses during the Summer Vacations wherever necessary.

3. Medium of Instruction and Examinations :

The Medium of Instruction and Examination in the course shall be ENGLISH or KANNADA.

4. Courses of Study :

- i) The details of the subjects to be studied and the number of hours/week allotted for them in both PART-I and II is separately specified for each course.

There shall be Common Syllabi and Scheme of Examination prescribed for both accademic and Vocational Streams during first and second year classes.

1. Kannada/or any other Indian Languages	4 Hrs./week
2. English	4 Hrs./week

- ii) For part-II Subjects :

For each theory paper as also Drawing, there shall be a maximum of 100 marks distributed for evaluation as under :

For each subject of Ist & 3rd Semesters

Continuous Internal Assessment	50	Marks
Internal Examination at end of Semester (3 hrs. paper)	50	„

For each subject of 2nd & 4th Semesters

Continuous Internal assessment	50	Marks
External Examinations at the end of Semester (3 hrs. paper)	50	„

- iii) Each practical under II shall carry a maximum of 100 marks distributed as under :

For each Practical of the Ist & 3rd Semesters

Continuous internal assessment	50	Marks
Internal Examination at the end of Semester (3 hrs. Paper)	50	„

For each Practical of the 2nd & 4th Semesters

Continuous Internal assessment	50	Marks
External Examination at the end of Semester (3 hrs. Paper)	50	„

- iv) The practical experience or field training or in plant training or intensive practical training arranged shall be valued on the basis of daily record prepared by the candidate as an internal assessment only for a maximum of 50 Marks.
- v) An additional 50 marks shall also be prescribed as a maximum for Evaluation of report on the Education Tour, if any, when prescribed for the subjects in Part-II.

5. Minimum Attendance :

- i) A candidate shall put in a minimum of 75% attendance in each of the subjects of Part-I.
- ii) A candidate shall put in a minimum of 80% average attendance taking attendance in all the subjects of Part-II for both the semesters of the year together.

6. Condonation of shortages of attendance :

- i) Heads of Institutions shall have powers to condone 15% shortage in attendance for both 5 (i) & 5 (ii) above for valid reasons.
- ii) Those candidates who fail to put in the minimum acceptable attendance as per Clause (5) read with (6) (i) above are required to repeat the course afresh in all respects.

7. Admission to the Examination :

Admission to the External Examinations at the end of 2nd & 4th Semesters shall be open to candidates.

- i) Who satisfy the attendance requirements as per Clause 5 and 6 (i) above.
- ii) and whose progress and conduct is satisfactory as per the certificate of the Head of the Institution.

8. Minimum for a pass :

- a) Candidates who secure not less than 30% in the subject and 35% in the aggregate for Part-I shall be declared to have passed in Part-I.
- b) No candidate shall be declared to have passed any Examination in a subject under Part-II unless he obtains not less than 40% of the marks in each of the theory

papers and 50% in each of the practicals prescribed for the examination for both internal assessment and examination at the end of the Semester put together for that paper.

9. Classification of successful candidates :

- a) Candidates who obtain 60% and above of the maximum marks for each part shall be declared to have passed that part in **FIRST CLASS**.
- b) Candidates who obtain 50% and above marks but less than 60% of the maximum for each part shall be placed in **SECOND CLASS** for that part.
- c) All other successful candidates shall be placed in the **PASS CLASS** in the respective parts.

10. Promotion from one Semester to another :

- a) promotion from the first semester to the second and from the third semester to the fourth is automatic.
 - b) However, promotion to the third semester shall be subject to the condition that a candidate should not have failed in more than three subjects in all of the Ist and IInd semesters together.
 - c) The marks once awarded for internal assessment shall be final unless the student is permitted to repeat the course afresh.
 - d) The results of the final semester shall be withheld until a candidate has passed in all the papers of all the semesters and has submitted the report of the inplant or intensive practical training diary and the same has been valued and judged as satisfactory, as per Clause 4 (iv) above.
-

ANNEXURE V

Courses introduced for 1977-78

Sl. No.	Code No.	Name of Course
		Duration Two years
1.	TE 1.01	Building Construction Technology.
2.	TE 2.01	Servicing Technology (Office Equipment)
3.	TE 3.01	Electrical Wiring and Servicing Electrical Appliances
4.	TE 6.01	Clock and Watch Repair Technology
5.	TE 7.01	Photography
6.	AG 1.01	Poultry Science
7.	AG 1.02	Dairying
8.	AG 1.03	Sericulture
9.	AG 1.04	Fisheries
10.	AG 1.05	Co-operation
11.	AG 1.06	Pesticides, Fertilizers and Weedicides
12.	HE 1.01	Laboratory Technician
13.	HE 1.02	Physio Therapy and Occupational Therapy Technician (Rehabilitation therapy Assistant)
14.	HE 1.03	X-Ray Technician (Radiological Assistant)
15.	HE 1.04	Medical record Technician
16.	HE 1.05	Optician and Refractionist
17.	HE 1.06	Multipurpose Basic Health Workers (Male)
18.	HE 1.07	Psychiatric Nursing Assistant (Psychiatric Nursing Aid)
19.	B 1.01	Banking
20.	B 1.02	Materials Management Technology
21.	B 1.04	Accountancy and Auditing
22.	B 1.05	Accountancy and Costing

ANNEXURE VI

**Courses Proposed to be introduced
during 1978-79**

Sl. No.	Code No.	Name of Course
Duration Two years		
1.	TE 4.01	Assembly and Servicing (Electronics)
2.	TE 7.02	Painting and Commercial Art
3.	TE 8.01	Printing and Book Binding
4.	TE 8.02	Clothing and Embroidery
5.	TE 8.03	Textiles Assistant
6.	TE 8.04	Sugar Technology (Pan Boiling)
7.	AG 1.09	Agricultural Economics and Farm management
8.	HE 1.08	Applied Nutrition, Dietetics and Institution Management
9.	B 1.03	Accountancy and Taxation
10.	B 1.06	primary Education
11.	B 1.07	Office practice and Procedure
12.	B 1.08	Salesmanship
Duration one year		
13.	B 1	Pre-School Education

ANNEXURE VII

Salient Aspects of Survey of Vocationalisation at the Higher Secondary Stage

1. The Government of India took a policy decision of far reaching consequence when they sponsored Vocationalisation of Education at the Higher Secondary stage viz. the XI and the XIIth Standards. The Government of Karnataka approved this scheme and sanctioned Additional sums for its implementation from 1977-78 onwards. It is included as a Central Sector Scheme.

2. Many educationists and parents of students were pointing out from some time past, that their wards were forced to study academic courses since vocational courses of their choice and aptitude were not available in colleges/institutions.

3. It was also felt that in certain organised sectors like industrial establishments, and other public service, there is considerable dearth of people with vocational skills.

4. It is therefore felt that instead of general education, Vocational education must be introduced to answer the need for providing trained personal with the required skills.

5. It was therefore necessary to have a new approach to Education and the necessity to structure training programmes to suit the needs of the society.

6. Depending upon the findings of a District Vocational Survey conducted in many Districts, a large number of vocational courses are being planned when the needs are so established. Teachers and experts in the field, available in the region are identified and they are requested to teach and train the students in these vocations.

7. The courses are generally terminal in nature and the duration varies from one to three years depending on the nature of the skills required to be developed for the situations.

8. Courses of 2 years duration have two parts. Part I (consisting of two languages) is common with the Pre-University academic stream. This helps to organise bridge courses if later needed to provide for vertical mobility and for introducing flexibility into the system. Part II of the programme is for the vocation subjects (18 to 24 hours per week). This would be utilised for providing the theoretical background and developing the necessary skills for a definite vocation. Out of this nearly 50 per cent would be practical oriented, tailored to suit the requirements of the profession or a job.

9. The maximum intake for each vocational courses is fixed at 25. The student has to take an aptitude test to determine where his talents lie.

In some courses like Psychiatric Nursing Assistant, Rehabilitation Therapy Technician, etc., the aptitude test based on Psychological assessment alone makes a candidate eligible.

10. The course of two years duration is organised in four semesters of 4 months duration each. The emphasis of training is on the learning aspect with the view to make the candidate highly acceptable in the professional field and the requirements of the profession dictate the contents of syllabi and scheme of training. The scheme of training is not examination oriented but learning oriented.

11. First and third semester examinations are conducted by the staff of the college. Examinations at the end of II and IV Semesters will however be public examinations and conducted by the State Council of vocational Education. Wherever

possible people of the profession and those in the field of employment will be associated in the assessment programme.

12. The Scheme provides for the involvement of people in the profession, representatives of industries and of employers as guest lecturers. Some workers with specialised skills are also included in the training programme to demonstrate and teach the practical methods adopted to develop skills of the profession.

13. There is a new move to prevail on the Universities to organise examinations leading to the award of external degrees for proficiency in some of these vocations, after a certain number of years of field experience of job training.

14. Government of India has come forward to meet a portion of the expenditure towards (1) Library, Furniture equipment for each of these courses (2) Salary expenditure of one full time teachers and worker teachers, whose ability to train the students in practical subjects is recognised.

15. Government of Karnataka has come forward to meet other approved expenditure other than the above on a 100% grant-in-aid basis.

16. The course is proposed to be organised at selected institutions running the XI and XII standards, Junior Colleges Composite Colleges, etc, where necessary facilities of infrastructure and the appropriate atmosphere are available.

17. In some of the courses, 4 to 8 weeks of in-plan: training/field training or institutionalisation is insisted upon as pre-requisite for award of Diplomas, In this, the student has to maintain daily reports of work done and practical experience gained. This is expected to familiarise the students with the working procedures in the field of service.

18, Most of the regulations, and rules for the award of scholarships etc. are common with the academic stream of the Pre-University Course through a separate set of Regulations are prescribed governing the operation of the scheme of Training and Examination for the Vocational Stream.

19. The State Council of Vocational Education issues Diploma recognised by State Board of Vocational Education to the successful candidates. All the Government Departments and the Government of India are being separately requested to identify the various posts and cadres in services where appropriate educational technology (Diplomas of the State Council of Vocational Education) could be recognised for purpose of recruitment.



ANNEXURE VIII

Salient Points in the Implementation of a Programme of Vocationalisation at the 11th & 12th Standards

I. Selection of Colleges :

1. Colleges with an average total student in the First P.U.C. class of more than 100 for the previous 3 years-may be chosen. One or two rural Colleges also selected.

2. Colleges with an average total student strength at the First P.U.C of about 200 may be selected for introducing four courses provided additional rooms/facilities are available.

3. The Principal should be dynamic and resourceful enough as judged by the Directorate. to arrange for effective liaison with industries/other establishments/agricultural universities/chartered accountants/practioners/hospital suprintindents/bankers, etc., for getting practical training required in the particuler fields.

II. Selection of Courses For Each College

This is decided upon by a combination of the following factors as a result of discussions of the College authorities with knowledgeable people in the field and the liaison which can be established by them.

1. The trends of employment opportunities predicted by District Vocational Survey conducted by this Department and the local conditions of availability of qualified staff for giving effective training in some of those fields as also the popularity of vocation with the students concerned.

2. The economic development envisaged for the region as included in the development plans of the district.

3. Socio-economic background of the majority of the student community.

4. Requirements of teaching staff and the training staff.

5. The proximity of Engineering College or a Polytechnic or a Hospital/s or a dairy or a Training Institute/Industry providing additional facilities for implementation of a course.

III Selection of Students

1. No courses shall have more than 25 students nor fewer than 15 unless otherwise specially permitted by the Director.

2. There should be reservation for S.C./S.T. and other weaker sections of the society as per Government Notification in this behalf in each course.

3. There shall be an aptitude test or a method of evaluation of the suitability of individual student for each course adopted of selection in addition to the marks in the qualifying examination.

4. For some of the courses, a psychology test or physical fitness or age or all of it may be considered.

IV Selection of Teachers

A. For Vocational Subjects :

For vocational courses, one lecturer-full-time and worker teacher-full-time may be appointed by a duly constituted selection committee. Part-time lecturers and part-time workers teachers can be appointed for practical training for specific periods a week or specific duration. A full-time teacher has to take 20-22 units of work (one hour lecture is taken equivalent to 2 units and one hour practical is equivalent to one unit).

Each of the teachers has to the following :

1. to take the classess regularly as per the time-table.
2. to conduct periodical test, correct periodical assignments, conduct quizzes, arrange announced and unannounced tests to be evaluated. They form the basis for continuous evaluation for each student and a register should be maintained to report the marks obtained in each of the subjects entrusted.
3. he has to prepare brief notes and get them cyclostyled in the office for distribution to students. Stationery will be made available by the Principal.
4. he has to conduct an End-examination for the subjects of first and third semesters and report the marks in the prescribed form within the due dates stipulated.

The Staff Pattern For Each Course Should be Got Approved by the Director Before any Appointments are Made.

Guest lectures could also be arranged for each course with the previous permission of the Director.

The total expenditure per year on salary and honoraria on vocational training is to be limited to Rs. 15,000/- per course for each class.

Success of the scheme directly depends upon the teacher and his love to inculcate practical aspects of the vocation in the student.

Note : All the full-time posts will have to be classified and recruitment done providing suitable reservations in each cadre as per Government Orders in this behalf.

A. *For non-Vocational Subjects :*

Unemployed graduates with suitable qualifications may be preferred as part-time lecturers in languages.

Maintenance of Accounts

Separate registers will have to be opened for maintaining accounts of all kinds including store account and will have to be produced before the auditing authority from the Directorate or the Accountant General as per rules. Vouchers will have to be maintained for all expenditure and accounts will have to be clearly written under each head, sub-head covering all expenditure under maintenance grant, contingency, T.A. and other miscellaneous accounts.

In respect of purchases rules laid down in the Manual of Financial Powers, Government of Karnataka are only applicable and should be strictly followed.



ANNEXURE IX

Statement showing the particulars of the Institutions in starting the vocational courses during.....

1. Name of the Institution
2. Name of the Principal with age, qualification and address
3. Details of courses existing at present :
 - (a) Academic
 - (b) Vocational, if any
4. No. of teachers employed with their age and qualification and experience (a separate list to be enclosed)
 - (i) No. of acres of land available
 - (ii) Liasion with industry if any
 - (iii) involvement of the other voluntary and service agencies.
6. No. of students admitted to the I.P.U.C. during-
 - 1975-76
 - 1976-77
 - 1977-78
7. Fee structure at the + 2 Stage.
8. Particulars of infrastructure already available for starting vocational courses if any :
 - (i) Additional room space
 - (ii) Additional furniture available
 - (iii) Duplicator
 - (iv) Overhead projector
 - (v) Movie projector
 - (vi) Slide projector
 - (vii) Trained Staff, in any trade - give details
 - (viii) Any other facility such as Typewriters, Printing Press, Hobby Centre Agricultural & Dairy, Polutry, Co-operative Society, Banks, Sewing Machines Workshop, Garrage.