

**VOCATIONAL SURVEY
REPORT
NAGPUR DISTRICT**

NIEPA DC



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P R E F A C E

Education has important role to play in the process of economic development. Its main function is to create human capital by augmenting the supply of trained, competent manpower for economic development. The Education is a unique investment in the present and future. The growth of employment opportunities and human resource development must be inter-dependant for balanced development of economy. The Education which develops specific skill relevant to economy and environment should receive priority in the development process. Vocationalisation of Education is, therefore, being implemented in the State as a National Policy.

Vocational Education Scheme was initially started in the Maharashtra State in academic year 1978-79 in selected nine districts. Subsequently the scheme was extended in phased manner to all districts during sixth plan period.

The Govt. of India announced National Policy on Education (NEP) in 1986. The National Policy also gives stress on Vocational Education. It recommends introduction of systematic, well planned and rigorously implemented programmes of Vocational Education. It envisages identification and implementation of need-based Vocational Courses to reduce the mis-match between demand and supply of skilled, semi-skilled and middle level supervisory manpower.

The New Educational Policy 1986 emphasises need of introduction of Vocational Education Programme having minimum competency concept required for job in the world of work. It is, therefore, inevitable that Vocational courses are need-based and have relevance with the economic development of the area. The

manpower needs differ from district to district and therefore detailed district Vocational Survey considering tahsil as unit is one of the most important preparations for introduction of Vocational courses.

It is, therefore, considered necessary not to restrict the limited survey of employment potential in organised sectors, but to cover all sectors of economy and also to present available statistics and data for each tahsil in the district. Co-relation of various data in various sectors of economy of tahsil very effectively presents picture of existing level of development and future potentialities. The integrated picture thus emerged will be helpful for planning the vocational education.

As per the directives of the Govt. of Maharashtra the districts vocational survey has been carried out in all districts of the State. The report presented here is of Nagpur district.

The Adhoc committee was set up in Nagpur district under Chairmanship of Collector of district who in turn constituted sub-committees for different subjects. The sub-committee submitted their recommendations to district committee. All these recommendations were considered while preparing this report.

Preparation of such type of report is a laborious task and involves co-operation of various departmental officers at all levels, industries, various establishments, Junior Colleges, Higher Secondary Schools, financial corporations of Govt. and other institutes functioning in the district. The present report is prepared after sustained and laborious efforts put in by Shri V.S.Awaghad, the District Vocational Education & Training Officer, Nagpur under guidance of Shri S.G.Chamandi, Dy. Director (Statistics) and Shri D.M.Pimpalkhute, Dy. Director. I am also

grateful to Shri N.V.Bhandarkar, Ex.Dy. Director for his helpful attitude and assistance rendered. But for the team work, the report could not have been presented. I, therefore, put on record my deep sense of appreciation for meticulous work done by these officers. I am also thankful to all those who have contributed in the preparation of this documents.

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NAGPUR DISTRICT

LOCATION MAP



**MAHARASHTRA
STATE**

OBJECTIVE AND METHODOLOGY FOR CONDUCTING VOCATIONAL STUDY/SURVEY

HISTORICAL BACKGROUND OF VOCATIONAL EDUCATION

1.1.1 The role of education is to help both young and adults to acquire knowledge, skills and attitudes which will enable them to accept and adjust to the changes which are both casual and consequential to the modernisation. The planned vocational education and training and its effective implementation would be a better approach to link education with development of economic activities.

1.1.2 Vocational Education has been defined in many ways by different experts. The comprehensive definition is provided by UNESCO in its recommendation in 1974. Accordingly Vocational and Technical Education has been defined as a comprehensive term embracing these objects of the educational process, involving, in addition to general education, the study of technologies and related sciences and acquisition of Practical skills, attitudes, understanding and knowledge relating to occupations in the various sectors of economic and social life. Vocational Education should further contribute to the Social, Cultural and economic development, while, at the same time developing the potential of individual for active participation in implementing and achieving these goals. It should lead to an understanding of the scientific and technological aspects of contemporary civilization in such a way that person can adjust to the environment and critical scientific and technological changes.

1.1.3 Normally, vocational education has been understood as the education designed to prepare skilled and semiskilled personnel, limited skill level, and middle level semi professional personnel for one or more group of occupations, trades or jobs.

1.1.4 An historical review education reveals that the concept of vocational education has been the subject of discussion for more

than a century. The Kothari commission (1964-66) undertook a comprehensive review of all aspects of education with a particular stress on vocational education. Some of the main recommendations of commission were -

1. National Pattern of 10+2+3 system of education.
2. Work experience as an integral part school education.
3. Two distinct streams - Academic and Vocational during stage 2 after (+10) with a possible coverage of 50% of enrolment of students in vocational stream.

The Commission had realised the effects of uncontrolled rush to Universities resulting in unemployment problem and emphasised the need of vocational education on priority during the schooling age of students.

1.1.5 The policy (1968) expressed the need to create increased facilities for technical and vocational education so that facilities should cover the fields like "agriculture, industry, trade, medicine and health". With more emphasis on vocational courses having terminal concept immediately after leaving school education with prospects open for further education in future.

1.1.6 The working group report of Planning Commission on Higher Education for seventh plan also stresses the importance of vocational education and laid down some guidelines.

1.1.7 Since adoption of education policy of 1968, there has been considerable expansion of educational facilities all over country at all levels. The Government of India in 1985 carried out appraisal of the existing education scene, followed by a nation-wide discussion/debate. After studying the views and suggestions received by different quarters, the Government of India announced new National Policy on Education (NEP) in 1986. The National Policy gives much stress on vocational education. The main recommendations are given below in nut-shell.

- i) The introduction of systematic, well planned and rigorously implemented programme on vocational education to enhance individual employability, to reduce mis-match between demand and supply of skilled manpower and provide alternative for those pursuing higher education without particular interest or purpose.
- ii) Vocational education should be distinct stream, intended to prepare students for identified occupations spanning several areas of activity.
- iii) All economic activities should be inter-locked with the education and training of appropriate categories. Efforts should be made to device number of courses based on agriculture, marketing, social services, para-medical, food craft and misc. sector. The emphasis should also be given on development of attitudes, knowledge and skills for entrepreneurship and self employment.
- iv) Non-formal, flexible and need based vocational programmes should be made available to neoliterates, school drop-outs and youth who have completed the primary education, persons engaged in work, unemployed and partially employed persons. Special attention in this regard should be given to women.
- v) Vocational courses should cover 10 percent of students by 1990 and 25 percent by 1995. Review of courses offered should be taken regularly.
- vi) Special programme for women, persons from rural areas and also from weaker section of society should be introduced on large scale.
- vii) Tertiary level courses should be organised for young persons who graduate from academic stream and may require vocational courses.

DECISION OF GOVERNMENT OF MAHARASHTRA

1.2.1 The Government of Maharashtra earlier had accepted the recommendations time to time on Educational Policy as envisaged by the Government of India. After debate with MLAs/MLCs/Educationalists and Representatives of Educational Institutes and after careful consideration of various schemes of vocational education, the Government of Maharashtra provided facility of few vocational courses on Pilot basis to the students of Higher Secondary classes from academic year 1978-79. This vocational education programme was of a nature of bifocal concept where-in two objectives were kept in mind viz. first that students who would like to join world of work could go after having a six months' training on the job - and second to join university education in academic or professional stream. Initially it was introduced in Greater Bombay, Nasik, Kolhapur, Amravati, Aurangabad, Nagpur in few selected educational institutions. Subsequently the scheme was extended in phased manner to all districts in Maharashtra during the sixth and seventh five year plan.

1.2.2 Further the Government of Maharashtra decided to implement the National Education Policy - 1986 announced by Government of India which stresses the need of introduction of systematic, well planned and need based vocational education programme having terminal concept based on the minimum competencies in required job areas in world of work. The vocational Education on terminal concept and entry to world of work immediately after completion of prescribed vocational courses are synonymous. It is, therefore, inevitable that vocational courses are need-based and only those which are required by the Society for economic development of particular area. Hence 'Vocational Survey' at micro-level is pre-requisite of implementation of vocational education programme for its success.

NEED FOR VOCATIONAL SURVEY

1.2.3 The need of conducting vocational survey is already established by various document viz, Higher Secondary Education and its vocationalisation "Learning to do" brought out by NCERT and various committees appointed by the Government of India. The National Review Committee (1978) recommended that the vocational courses should be preceded by vocational surveys and should have relevance to the economic life of district/region and should be identified on the basis of properly conducted vocational surveys and such surveys be conducted not as one time job but it should be a continuous process.

1.2.4 The new Education Policy 1986 endorse this view and more so it should be diversified from +5 or +8 according to need and even it should be made available to drop-outs from the schools. The NEP also stress that it should be expanded on the principles of non-formal extension education.

1.2.5 The vocational education provides one or more skills to students. The main objectives of the vocational education are visualised as under -

- i) To help for removal of unemployment.
- ii) To meet the need of Semi-skilled, limited skilled, skilled level manpower for growing economic sectors.
- iii) To prevent rush to degree courses, in general education and de-link the degrees from the jobs.
- iv) To prepare the students for service sector need.
- v) To bring the Social transformation and 'dignity of labour'.
- vi) To identify and implement need based vocational course with more emphasis on women, rural and weaker sections and make available the avenues open for employment and self-employment in the local areas to avoid migration of population.

1.2.6 Vocational surveys will help to a great extent to translet above mentioned objectives into reality. Hence the Government of

Maharashtra decided to conduct vocational survey of all districts of the state.

OBJECTIVES OF THE SURVEY

1.3.1 It is widely accepted for specific occupation and training imparted to prepare for specific occupations should have linkage with the man-power needs and developmental demands of the areas concerned. Manpower needs however differ from area to area on account of natural resources available, imbalance in economic development, political awareness etc. Education and Training Programmes are therefore required to be formulated with specific employment needs of the area/district. This necessitate the conduct of districtwise vocational surveys with objectives shown below -

1. To find out the available range of occupations.
2. To identify emerging vocations and level of competencies needed.
3. To list out avenues of self employment.
4. To list out educational facilities available in area.
5. To make reasonable estimates of manpower, wherever possible, of various levels skill-wise and education-wise.

APPROACH TO THE PROBLEM -

1.3.2 The conduct of vocational survey of area/district is an important step of manpower planning. But the manpower planning cannot be done in isolation as it is an integral part of economic planning and it is the out-come of the educational policy and hence these have to inter-act with each other. There are various approaches to this problem but each approach followed in isolation has its limitations. So a comprehensive approach is proposed as indicated below-

1. Study of data of occupations and manpower requirements in the existing establishments, probable expansion and emerging/prospective establishments in all economic sectors of development.

2. To acquaint with the views and the needs of vocational education and training in various sectors of development from the knowledgeable persons with reference to the rapid development in rural and urban areas due to implementation of development plans.
3. Identify areas of self-employment and probable occupations with help of development authorities, progressive cultivators and experts in the fields.

TECHNIQUES ADOPTED -

1.4.1 To translate the comprehensive approach into action, schedules are designed as shown below.

Schedule 1 : A survey of existing Industrial/Trade/Commerce/Transport establishment.

Schedule 2 : A survey of prospective Industrial/Trade/Commerce Transport establishment.

Schedule 3 : Views of the knowledgeable persons.

Schedule 4 : Occupational needs of remaining period of seventh plan (1988--90).

Schedule 5 : A survey of opinion of Block Development Officers and other experts in the field of agriculture and allied activities.

Schedule 6 : A survey of Educational Institutions.

The above schedules will throw light on various occupations of different sectors of economy as under :-

(1) Schedule No. 1 and 2 :-

These schedules will reveal different facts of existing and prospective industrial establishments which will be useful to identify various emerging occupations from industrial field i.e. Secondary sector, whereas Schedule 1 is used for other areas like trade, commerce etc. it will throw light on various occupations of tertiary sector.

(2) Schedule No. 3 :-

This schedule will extract views of knowledgeable persons of all cross-sections of the society engaged in different activities. Their views will be useful in getting information for primary, secondary and tertiary sector.

(3) Schedule No. 4 :-

This schedule is meant for analysing employment generation of various developmental departments and data thus obtained will be useful for all sectors.

(4) Schedule No. 5 :-

This schedule is designed to extract information from B.D.Os/ progressive cultivators, Project Officers etc. mainly covering primary sector.

(5) Schedule No. 6 :-

This schedule is meant for collection of data from various educational institutions eliciting the views from the Principals or Heads of Institutions about facilities available with the institute alongwith other infrastructural facilities available in the vicinity of institute.

LAUNCHING OF SURVEY -

1.4.2. It will be useful to indicate the important steps of survey in brief. The following steps were necessary before the launching of survey -

A) Formation of co-ordination committee under the Chairmanship of Collector at district level and obtain views on avenues of employment and self employment and need of vocational courses and its level of competencies in context with the development and their own experience.

The committee consisted following representatives-

- 1) The Collector & Member-Secretary, : Chairman
D.P.D.C., Nagpur.
- 2) The General Manager, : Member
District Industries Centre,
Nagpur.
- 3) The Principal Agriculture Officer, : Member
Training & Visit Scheme,
Nagpur.
- 4) The Deputy Director of : Member
Animal Husbandary, Nagpur.
- 5) The Education Officer, : Member
Zilla Parishad, Nagpur.
- 6) The Project Director, : Member
District Rural Development Authority,
Nagpur.
- 7) The District Vocational Education- : Member-Secretary
& Training Officer, Nagpur.

Further three sub-committees were formed under the Chairmanship of different officers of this district -

- 1) Primary Sector : Associate Dean, : Chairman
Sub-Committee, College of Agriculture,
Nagpur.
- 2) Secondary Sector : President, : Chairman
Sub-Committee Vidarbha Industries-
Association, Nagpur.
- 3) Tertiary Sector : Superintendent, : Chairman
Sub-committee, Central Telegraph Office,
Nagpur.

These sub-committees identified various courses pertaining to their fields.

The courses suggested by the sub-committees and the information collected in various schedules were discussed at length in the Adhoc committee. The final conclusions were then drawn.

In addition to it the set of six different questionnaires/schedules designed for identifying the new courses. The information collected was analysed and discussed in the Adhoc Committee.

The Committee have suggested new courses as required to be introduced at different levels with their duration, giving the level of competency required, its scope and probable manpower requirement for S.S.C. passed and non-S.S.C. student satisfying the need of small scale industry requiring limited skills, organised sector's need and tertiary level need in service sector.

- B) Collection of relevant published documents.
- C) Printing of schedules.
- D) Preparation of a structure for survey work.
- E) Training of field staff and allocation of work.

On completion of above pre-requisites, the field work was started. This included -

- a) Field Work.
- b) Scrutiny and tabulation of data.
- c) Analysis and inferences.
- d) Report writing.

LIMITATIONS OF SURVEY -

- 1.5.1. a) The approach of this survey is not unilateral in nature. The views expressed by knowledgeable persons of different strata of society has helped to identify the broad ideas of vocation in general, in terms of the felt needs of the area/district.
- b) The material available in various Government publications, Programme of financial institutes etc. has been mainly utilised to find out the stage and the trends of economic development of district.
- c) The findings of the survey with above limitations will broadly indicate the areas of activities where vocationalisation has scope and avenues of employment on

self-employment. The success of the vocationalisation
mainly depend on the active involvement of community and
industry/employment sectors.

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NAGPUR DISTRICT

PHYSIOGRAPHY



ALTITUDE IN METRES



CHAPTER - II

DISTRICT PROFILE

2.1: LOCATION OF DISTRICT -

The Nagpur district lies between 20° 35' and 21° 44' north latitude and 78° 15' and 79° 40' east longitude. It is bounded on the north by the Chhindwada and Sion districts of Madhya Pradesh, on the east by Bhandara, on the south and west by Chandrapur and Wardha districts respectively and along small strip and the north-west by Amravati district of Maharashtra State.

2.2 : AREA, SIZE AND RIVERS -

The district covers an area of 9930 square-kilometers and it ranks 18th among 30 districts in Maharashtra State. It has 3.24 percent of area in comparison with area of Maharashtra State. It includes 14 tahsils, viz. 1) Nagpur, 2) Nagpur (Rural), 3) Kamptee, 4) Hingna, 5) Katol, 6) Narkhed, 7) Saoner, 8) Kalmeshwar, 9) Ramtek, 10) Parshioni, 11) Mouda, 12) Umred, 13) Bhiwapur and 14) Kuhi. It comprises of 1658 inhabited villages and 16 towns. According to the 1981 census, the population of the district was 25,88,811. The urban population was 14,69,279 i.e. 56.75 percent and the rural population was 11,19,532 i.e. 43.25 percent.

The main rivers of the district are the Wardha and the Wainganga. The principal tributaries of the Wardha river are the Bor, the Wanna, the Jam and the Kar. The Kanhan and the Pench are the most important tributaries of the Wainganga and meet at Kamptee where they are joined by the Kolar. Other rivers of some importance are the Bawanthadi and the Sur.

2.3 TOPOGRAPHY, SOIL TYPE, RAINFALL ;

a) Topography :- The district has an average elevation between 274.50 and 305 meters (900 and 1000 feet) above sea level.

and its relief features are characterised by and large, by residual hill ranges of the Satpura and their detached hillocks enclosing them undulating black soil valleys. Much of the topography is typically one of the deccan trap having flat topped and terraced features, low but treased side and isolated knolls. Eastwards and North-Eastwards, the land-scape changes in an interesting manner due to change in the underlying rocks. The rocks of Gondwana series are not only important because of their coal and manganese deposits, but in their surface expression they present a low rolling topography within a poor soil cover and vegetation. The greater part of the district is an undulating plateau with a variation in height between 652,70 meters above sea level on the upland ridges in north and about 247,50 meters near Kanhan river. This plateau surface of the district falls into three district drainage basins. In the north the upland ranges are on the extension of the Satpura ranges, they are narrow in the west but widen to a breadth of about 19 kms. towards the East. Immediately South of these upland ranges, stretches the Ambagad Hills, the Western extremity of which lies in Nagpur district. The historic temple of Ramtek is situated on a spur of this range signifying the hill of Rama also known formerly as 'Sundergiri' vermillion mount 'Tapogiri'.

b) Soil :- The main soils of the district are medium deep black cotton (kali), light deep brown (Morand) and red medium deep black soil is found around Kalmeshwar and Saoner in the Wardha valley and in Nagpur, Kamptee plains. The principal soil of the district is known as Morand. It is suitable for cotton, jowar and found in almost all the northern parts of Ramtek and especially in the valley of the Sur river.

c) Zones :-

The district can be broadly divided into two natural agro-climatic zones as detailed below -

Broad Natural Zone	Tahsil *	Soil Type	Main crops
1.	2.	3.	4.

AGROCLIMATIC ZONES

1) Moderate to moderately high rainfall zone with soil formed from Trap	Nagpur, Katol, Saoner, Ramtek.	Brown to dark soil formed from trap with varying depth from moderate to deep.	Jowar, Cotton, Tur.
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2) High rainfall zone with soils formed from mixed rocks.	Nagpur, Umred.	Yellowish brown to red soil of mixed percentage.	Paddy, Jowar, Wheat.
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* Note :- At the time of census-1981, Nagpuur district had only 5 tahsils. Later on district has been divided into 14 tahsils as follows -

- 1) Nagpur - Nagpur, Hingana, Kamptee, Nagpur (Rural).
- 2) Katol - Katol, Narkhed.
- 3) Saoner - Saoner, Kalmeshwar.
- 4) Ramtek - Ramtek, Parshioni, Mouda.
- 5) Umred - Umred, Bhiwapur, Kuhi.

d) Climate and Rainfall :

Since the district is away from sea-shore, the climate of the district is uneven and as such there is large variation in temperature in hot and cold seasons. It is generally hot and dry with a temperature range of 11 C. to 46.5 C. in the month of January and May respectively.

The area has an assured rainfall generally commencing from the middle of June and terminating by middle of October. The rainfall increases from west to east and Ramtek and Umred tahsils receive maximum rainfall. The rainfall is not uniform in all parts of the district. It is highest at Umred with an average of about 1253mm in the year 1986 as against the average

of 1092mm. If the rain come in time and are equitably spread over the entire monsoon period properly, then average rainfall in the district proves to be adequate for good crops.

TABLE - 2,1

Rainfall of selected centres

Sr. No.	Centre	Rainfall in mm	
		1985	1986
1.	2.	3.	4.
1.	Nagpur	1359	956
2.	Katol	870	999
3.	Saoner	825	1084
4.	Ramtek	1090	1170
5.	Umred	1067	1253

(Source :- District Statistical Abstract.)

2.4 LAND USE PATTERN ;

The following table indicates the land use pattern of Nagpur district as per normal classification adopted for this purpose.

TABLE - 2,2

Land Use Pattern of Nagpur District in 1985-86

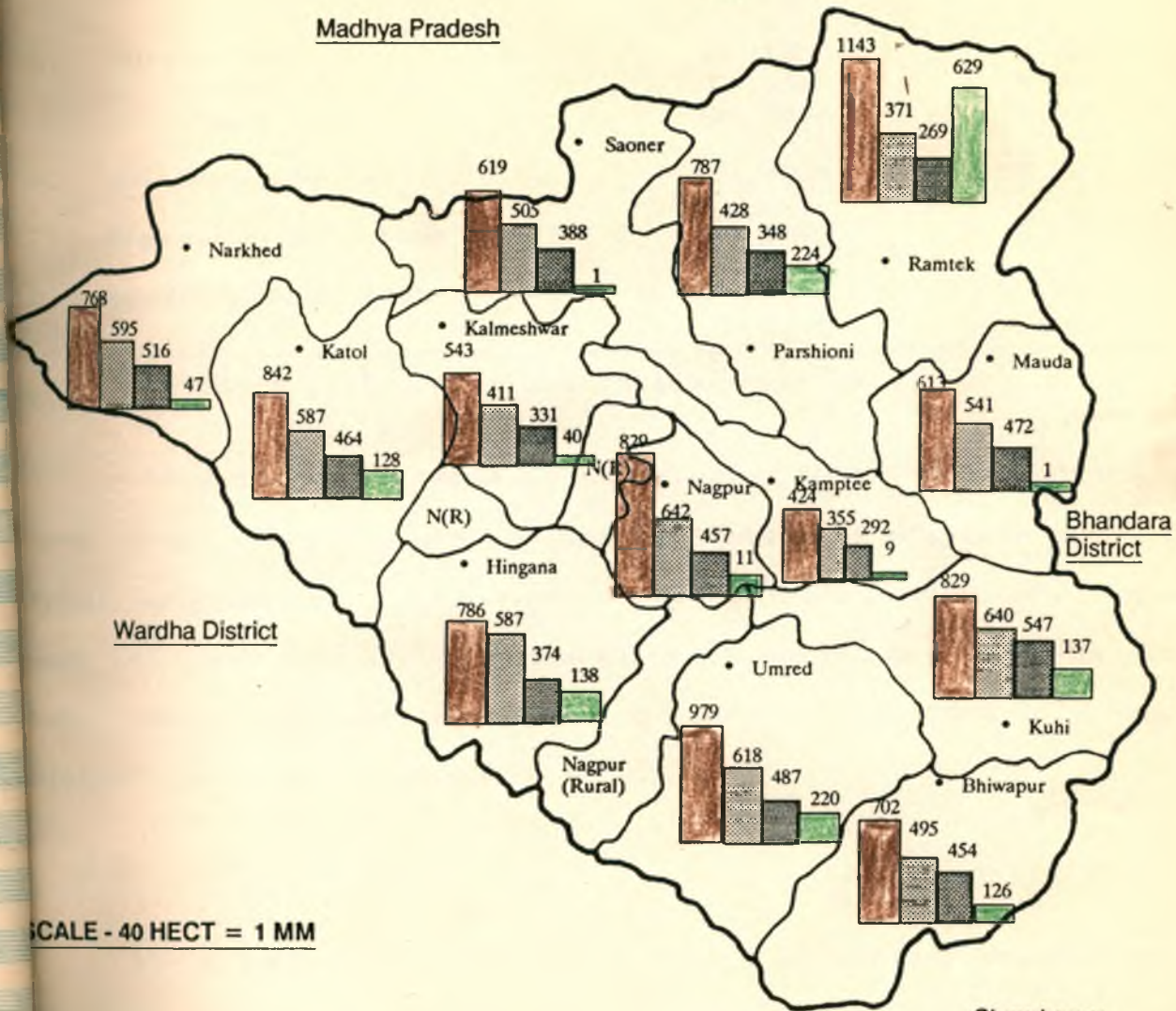
Sr. No	Item	Area in hectares	Percentage to total geographical area.
1.	2.	3.	4.
1.	Geographical area	986,400	100.00
2.	Forests	171,100	17.34
3.	Area not available for cultivation,	82,600	8.36
	i) Land put to non agricultural use,	47,900	4.86
	ii) Barren and uncultivated Land,	34,700	3.21

Contd...

NAGPUR DISTRICT

LAND USE PATTERN 85 - 86

FIGURES IN '00' HECT.



SCALE - 40 HECT = 1 MM

- TOTAL GEOGRAPHICAL AREA
- AREA CULTIVABLE
- NET AREA SOWN
- AREA UNDER FOREST

Contd.,,

1.	2.	3.	4.
4.	Other cultivated land	126,700	12.83
	i) Cultivable waste	40,300	4.08
	ii) Permanent pastures and grazing land,	55,200	5.58
	iii) Land under miscellaneous trees, groves etc.	31,200	3.16
5.	Fallow lands	66,100	6.70
	i) Current fallows	17,400	1.76
	ii) Other fallows	48,700	4.83
6.	Net area sown	539,900	55.73
7.	Area sown more than once	34,100	3.45
8.	Gross cropped area	574,000	59.18

(Source :- District Statistical Abstract.)

From the above table it is revealed that the percentage of area under forest was 17.34 and percentage of net sown area to total geographical area worked out to 55.73. The area sown more than once was 34,100 hectares which worked out to 3.45. The tahsil-wise information regarding land use pattern of Nagpur district is given in Appendix 'I'.

2.5 LAND MAN RATIO ;

The extent of land available to the population depending to it for their livelihood is an important desideratum in considering the land as a resource. While working out land-man ratio, the rural population as per 1981 census is considered and cultivated land (Net area sown + current fallows) of 1985-86 is considered as land cultivated.

The tahsil-wise information of land-man ratio is given in the following table :-

TABLE 2.3

Tahsil-wise Land-Man Ratio 1985-86

Sr. No.	Tahsil	Total Rural	Total Agricultural workers		Cultivated area (Net area + current fallows)	Pressure of Land	
		Population	Cultivators,	Agricultural Labourers		Total Rural population	Total Agricultural workers
1.	2.	3.	4.	5.	6.	7.	8.
1.	Nagpur	246,861	32,200	47,300	119,800	2.06	0.66
2.	Katol	189,711	34,500	45,100	103,200	1.83	0.77
3.	Saoner	168,755	28,900	30,800	76,600	2.07	0.78
4.	Ramtek	264,439	39,300	41,600	105,900	2.42	0.76
5.	Umred	249,766	44,600	57,100	151,800	1.51	0.66
Total		1,119,532	179,500	221,900	557,300	2.09	0.72

(Source :-Census of India 1981 and District Statistical Abstract)

2.6 SIZE OF HOLDING :

The following table indicates the number of operational holdings and area operated by size class of operational holdings in Nagpur district during the year 1980-81

TABLE 2.4

Size of Holding

Sr. No.	Size Class	Total Holdings		Average area of total Holding.
		No.	Area	
1.	2.	3.	4.	5.
1.	Below 0.5 Ha.	8,365 (4.59)	2,549 (0.39)	0.30
2.	0.5 - 1.0 Ha.	19,608 (10.77)	14,911 (2.32)	0.75

Contd.,,

1.	2.	3.	4.	5.
3.	1.0 - 2.0 Ha.	47,364 (26.03)	70,972 (11.06)	1.61
4.	2.0 - 3.0 Ha.	32,543 (27.89)	81,452 (12.70)	2.50
5.	3.0 - 4.0 Ha.	19,959 (10.97)	69,724 (10.87)	3.49
6.	4.0 - 5.0 Ha.	15,458 (8.49)	69,611 (10.85)	4.04
7.	5.0 -10.0 Ha.	29,600 (16.27)	201,760 (31.46)	6.81
8.	10.0 -20.0 Ha.	8,086 (4.44)	104,674 (16.32)	12.94
9.	20.0 -30.0 Ha.	725 (0.39)	16,587 (2.58)	22.87
10.	30.0 -40.0 Ha.	127 (0.06)	4,351 (0.67)	34.25
11.	40.0 -50.0 Ha.	38 (0.02)	1,692 (0.26)	44.52
12.	50.0 and above	33 (0.01)	2,928 (0.45)	88.72
Total		181,906 (100.00)	641,211 (100.00)	3.52

(Source :- Agricultural Census, 1981-82)

(Figures in the bracket indicates the percentage to total)

It will be seen from the above table that the percentage of marginal holders (cultivators holding area 1 hectare or below) was 15.36 percent, while the percentage of small farmers (cultivators holding area 1 to 2 ha.) was 26.03 percent. Thus, it is observed that in all 41.39 percent holders were either-marginal or small farmers in Nagpur district but having 14 percent operational area.

2.5 FOREST :

The following table indicates tahsil-wise area under forest during the year 1985-86.

TABLE 2.5
Tahsil-wise Forest Area

Sr. No.	Tahsil	Total Geographical area, (Hectares)	Area under Forest (Hectares)	% to total Geographical area.
1.	2.	3.	4.	5.
1.	Nagpur (Urban)	20,900	100	0.47
2.	Nagpur (Rural)	62,000	1,100	1.61
3.	Hingana	78,600	13,800	17.55
4.	Kamptee	42,400	900	2.12
5.	Katol	84,200	12,800	15.20
6.	Narkhed	76,800	4,700	6.11
7.	Saoner	61,900	100	0.16
8.	Kalmeshwar	54,300	4,000	7.36
9.	Ramtek	114,300	62,900	55.03
10.	Parshioni	78,700	22,400	28.46
11.	Mouda	61,300	100	0.16
12.	Umred	97,900	22,000	22.47
13.	Bhivapur	70,200	12,600	17.94
14.	Kuhi	82,900	13,700	16.52
Total		986,400	171,100	17.34

(Source :- District Statistical Abstract, 1986-87)

2.8 (a) POPULATION ;

During the decade 1971-81 Nagpur district registered the growth rate of 33.26 percent of which strikingly high growth rate of population in the district as compared with growth rate of Maharashtra 24.54 percent. This high growth rate might be due to immigration of population to Nagpur city in search of employment. The following table shows the changes in distribution of population.

TABLE 2.6

Variation in Population

Sr. No.	Tahsil	Population in '000'						Percentage decadal (1971-81) Variation		
		1971			1981			Total	Rural	Urban
		Tot- al.	Rur- al.	Urb- an.	Tot- al.	Rur- al.	Urb- an.			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1.	Nagpur	1107	177	930	1550	246	1303	+40.00	+39.33	+40.13
2.	Katol	202	164	38	236	189	46	+16.37	+15.25	+21.11
3.	Saoner	181	142	39	224	168	55	+23.85	+18.59	+43.02
4.	Ramtek	214	194	20	293	264	28	+36.78	+36.07	+43.68
5.	Umred	235	208	27	283	249	33	+20.20	+19.56	+25.17
Total		1939	885	1054	2588	1119	1469	+33.26	+26.17	+39.72

(Source :- Census of India, 1981)

The total population of Nagpur district was 25,88,811 as per 1981 census. Amongst all tahsils, Nagpur tahsil had highest population.

The classification of population as per 1981 population census in Nagpur district under Rural/Urban and Male/Female is indicated in the following table :-

TABLE 2.7

Tahsil-wise Male/Female - 1981 Population Census

Sr. No.	Tahsil	Total Rural Urban	Population		
			Persons	Males	Females
1.	2.	3.	4.	5.	6.
1.	Nagpur	Total	1,550,698	811,451	739,247
		Rural	246,861	128,863	117,998
		Urban	1,303,837	682,588	621,249
2.	Katol	Total	236,593	121,673	114,920
		Rural	189,711	97,395	92,316
		Urban	46,882	24,278	22,604
3.	Saoner	Total	224,611	116,352	108,259
		Rural	168,755	87,354	81,401
		Urban	55,856	28,958	26,858
4.	Ramtek	Total	293,233	151,999	141,234
		Rural	264,439	137,020	127,419
		Urban	28,794	14,979	13,815
5.	Umred	Total	283,676	143,902	139,774
		Rural	249,766	126,450	123,316
		Urban	33,910	17,452	16,458
Total		Total	2,588,811	1,345,377 (51.96%)	1,243,434 (48.04)
		Rural	1,119,532	577,082	542,450
		Urban	1,469,279	768,295	700,984

(Source :- Census of India, 1981)

Note :- New tahsils have been formed after 1981 census, Hence new tahsil's population is not shown.

It is seen from the above table that the percentage of female population to total population was 48.04%. Similarly, the percentage of rural population to total population was 43.24%. The rural population is maximum in Ramtek tahsil (264,439) and minimum in Saoner tahsil (168,755). The sex-ratio (No. of females per 1000 males) works out to 924. The corresponding sex-ratio of Maharashtra State was 937.

b) URBANISATION :

The growth of urban population in the district since 1961 is given below :-

TABLE 2,8

Sr. No.	Year	No. of urban	Urban population	% of urban population.
1.	2.	3.	4.	5.
1.	1961	12	787,000	52.00
2.	1971	13	1,055,000	54.32
3.	1981	16	1,469,000	56.75

(Source :- Census of India, 1981)

Out of the total urban population, about 83 percent population resides in Nagpur town, followed by Kamptee (5 percent), Umred (3 percent) and Katol (2 percent) towns.

The tahsil-wise distribution of urban area is given below-

Sr. No.	Tahsil (as per 1981)	Newly formed tahsils	Urban areas
1.	2.	3.	4.
1.	Nagpur	1) Nagpur (Urban), 2) Nagpur (Rural), 3) Kamptee, 4) Hingana.	1) Nagpur city, 2) Kamptee, 3) Kamptee contonment, 4) Bina.
2.	Katol	1) Katol, 2) Narkhed.	1) Katol, 2) Narkhed, 3) Mowad, 4) Davlamati.
3.	Saoner	1) Saoner, 2) Kalmeshwar.	1) Saoner, 2) Kalmeshwar, 3) Chincholi, 4) Khapa, 5) Mohpa.
4.	Ramtek	1) Ramtek, 2) Parshioni, 3) Mouda.	1) Ramtek, 2) Kanhan.

Contd...

Contd.,,

1.	2.	3.	4.
5.	Umred	1) Umred, 2) Bhiwapur, 3) Kuhi,	1) Umred,
Total - 5		14	16

c) SCHEDULED CASTE AND SCHEDULED TRIBES ;

The population of scheduled castes and scheduled tribes as per 1981 census is given below tahsil-wise. It reveals from the table that the percentage of scheduled caste population was 7.03 and the percentage of scheduled tribe population was 13.63 percent in the district. The population of scheduled caste is concentrated in Nagpur tahsil followed by Ramtek tahsil. The population of scheduled tribe is concentrated in Nagpur tahsil.

TABLE 2.8-A

Scheduled Caste/Scheduled Tribe Population

(Figures in '000')

Sr. No.	Tahsil	Total Rural Urban	Population as per 1981 census					
			Scheduled Caste			Scheduled Tribe		
			Total	Male	Female	Total	Male	Female
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	Nagpur	Total	100	52	48	177	91	85
		Rural	16	8	7	37	19	18
		Urban	84	44	40	140	72	68
2.	Katol	Total	21	11	10	43	22	21
		Rural	16	8	8	38	20	18
		Urban	5	2	2	5	3	3
3.	Saoner	Total	22	12	11	29	15	14
		Rural	17	9	8	19	10	9
		Urban	5	3	2	11	5	5
4.	Ramtek	Total	25	13	12	56	29	27
		Rural	23	12	11	54	28	26
		Urban	3	1	1	2	1	1

Contd.,,

1.	2.	3.	4.	5.	6.	7.	8.	9.
5.	Unned	Total	14	7	7	48	24	24
		Rural	12	6	6	38	19	19
		Urban	2	1	1	10	5	5
District Total			182	94	88	353	182	171
			(100,00)	(100,00)	(100,00)	(100,00)	(100,00)	(100,00)
Rural			84	44	41	185	95	90
			(46,15)	(46,00)	(46,59)	(52,40)	(52,19)	(52,63)
Urban			98	51	47	168	87	82
			(53,84)	(54,00)	(53,41)	(47,60)	(47,81)	(47,37)

(Source :- Population Census-1981)

(Figures in the bracket indicates the percentage to total)

2.9 SIZE OF VILLAGES ;

The percentage of villages according to size class of population as per 1981 census is shown in the following table:-

TABLE 2.9

SIZE OF VILLAGES

Sr. No.	Size class	No. of villages	% of villages to total no of villages.
1.	2.	3.	4.
1.	Less than 500	940	56,69
2.	500 - 999	457	27,56
3.	1000 - 1999	189	11,40
4.	2000 - 4999	50	3,02
5.	5000 - 9999	18	1,09
6.	10000 and above	4	0,24
All ranges		1658	100,00

(Source :- District Statistical Abstract 1986-87)

There are 1874 villages in the district, out of which 1658 are inhabited and 216 uninhabited. It is observed from this table that about 84,25 percent villages consist population less

than 1000. The tahsil-wise classification of villages according to size class of population as per 1981 census and percentage distribution of villages within the size class is shown in Appendix "2".

2.10 LITERACY :

Any person who is able to both read and write with understanding in any language is recorded as a literate by the Indian Census. The latest 1981 census revealed that 54.56 percent of the total population in the district was literate against the State average literacy rate of 47.18 percent. In rural area this rate was 41.38 while in urban area it was 64.60 percent. The literacy rate among male and female was respectively 63.74 and 44.62 percent. Within the district, the literacy rate was maximum in Nagpur tahsil (62.17%) and minimum in Ramtek tahsil (38.88%).

The following table indicate the tahsil-wise number of persons literate, percentage of literacy among male and female -

TABLE 2.10

Tahsil-wise literacy 1981

Sr. No.	Tahsil	Total Rural Urban	No. of Literates (Figures in '000')			Percentage of Literacy		
			Male	Female	Total	Male	Female	Total
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	Nagpur	Total	569	395	964	70.10	53.46	62.17
		Rural	70	39	109	54.33	32.71	44.00
		Urban	499	357	855	73.08	57.41	65.61
2.	Katol	Total	70	44	114	57.87	38.09	48.22
		Rural	54	33	87	55.40	35.45	45.69
		Urban	16	11	28	67.79	48.48	58.67
3.	Saoner	Total	68	38	106	58.15	35.30	47.14
		Rural	48	26	74	54.85	31.89	43.78
		Urban	20	12	32	68.08	45.62	57.30
4.	Ramtek	Total	77	37	114	50.38	26.52	38.88
		Rural	67	32	98	48.74	24.83	37.22
		Urban	10	6	16	65.32	42.05	54.16

Contd....

1.	2.	3.	4.	5.	6.	7.	8.	9.
5.	Umred	Total	74	40	114	51,48	28,74	40,28
		Rural	62	33	96	49,39	26,89	38,24
		Urban	12	7	19	66,66	42,60	54,98
	Total	Total	858	555	1412	63,74	44,62	54,56
		Rural	301	162	462	52,18	29,88	41,38
		Urban	556	393	949	72,42	56,03	64,60

(Source :- 1981 Population Census)

The tahsil-wise position of literacy among S.C. and S.T. is given in following table :

Sr. No.	Tahsil	Total S.C. Population	Total S.T. Population	No. of Literate	
				S.C.	S.T.
1.	2.	3.	4.	5.	6.
1.	Nagpur	99,572 (54,59)	176,860 (50,06)	6,392 (6,42)	20,179 (11,41)
2.	Katol	20,776 (11,39)	43,273 (12,24)	1,824 (8,78)	7,905 (18,27)
3.	Saoner	22,439 (12,30)	29,366 (8,30)	2,241 (9,99)	3,838 (13,07)
4.	Ramtek	25,347 (13,90)	56,170 (15,90)	2,189 (8,64)	10,762 (19,16)
5.	Umred	14,261 (7,82)	47,684 (13,50)	717 (5,03)	8,015 (16,81)
	Total	182,395 (100,00)	353,303 (100,00)	12,858 (7,05)	48,225 (13,65)

(Figures given in bracket are percentage to the total)
(Source :- Census of India, 1981)

Out of total literate of 1,412 thousand, the number of Literate among S.C. and S.T. was 12,858 and 48,225 respectively. The literacy percentage works out to about 0.91 for scheduled caste and 3.41 for scheduled tribes.

2.11 LIVELIHOOD :

The distribution of workers by occupational pattern as per 1981 population census is as follows :-

TABLE 2.11

<u>Occupational Pattern</u>			
<u>Sr. No.</u>	<u>Occupational Pattern</u>	<u>No. of workers</u>	<u>Percentage to total workers</u>
<u>1.</u>	<u>2.</u>	<u>3.</u>	<u>4.</u>
1.	Cultivators	191,700	20,80
2.	Agricultural Labourers	241,800	26,24
3.	Manufacturing processes, repairs, household industries.	49,900	5,40
4.	* Other Workers.	437,900	47,56
<u>Total Workers</u>		<u>921,300</u>	<u>100,00</u>

(Source :- Population Census 1981)

* It includes Live-stock, forestry, fishing, hunting, plantation, etc. and also construction, trade and commerce, transport, storage and communication, other than house-hold industry and other services.

The tahsil-wise information of classification of workers non-workers is shown in Appendix "3".

2.12 There has been conceptual change for defining the workers in the 1981 - census. A trichotomy of main workers, marginal workers and non-workers has been adopted. For main workers major part of the preceding year (at least 6 months or 183 days) was adopted while who worked for some time during the preceding year but not for major part have been treated as marginal workers. All those who had not worked at all during last year, were recorded as non-workers. Persons engaged in house-hold duties, students, dependents, retired persons are some of the catagories grouped as non-workers.

It is observed from table 2.11 above that comparatively very high proportion of workers (47.56%). The percentage of cultivators was 20.80 as against 35.12 percent for Maharashtra State. The agricultural labourers were 26.24 percent. If we consider cultivators and agricultural labourers together, then the percentage of persons engaged in agricultural activity works out to 47.04 percent. The agricultural labourers were more as compared with the cultivators.

The distribution of total population into main workers, marginal workers and non-workers given below in nutshell.

Sr. No.	Occupational pattern	Number (in '00')	Percentage to total population.
1.	Main Workers	9,213	35.58
2.	Marginal Workers	667	2.56
3.	Non- Workers	16,008	61.86
	Total	25,888	100.00

2.13 IMPORTANT CROPS :

Kharif and Rabbi are the two main cultivating seasons in the district. The crops which are taken in the early south-west monsoon are called Kharif crops, while those harvested in the winter are known as Rabbi crops. The important crops of the district are Paddy, Jowar, Cotton, Mug, Udid, Groundnut, Tur, Wheat, Gram, Soyabin, Jawas etc. The important cash crops of the district are Cotton, Groundnut and Soyabin.

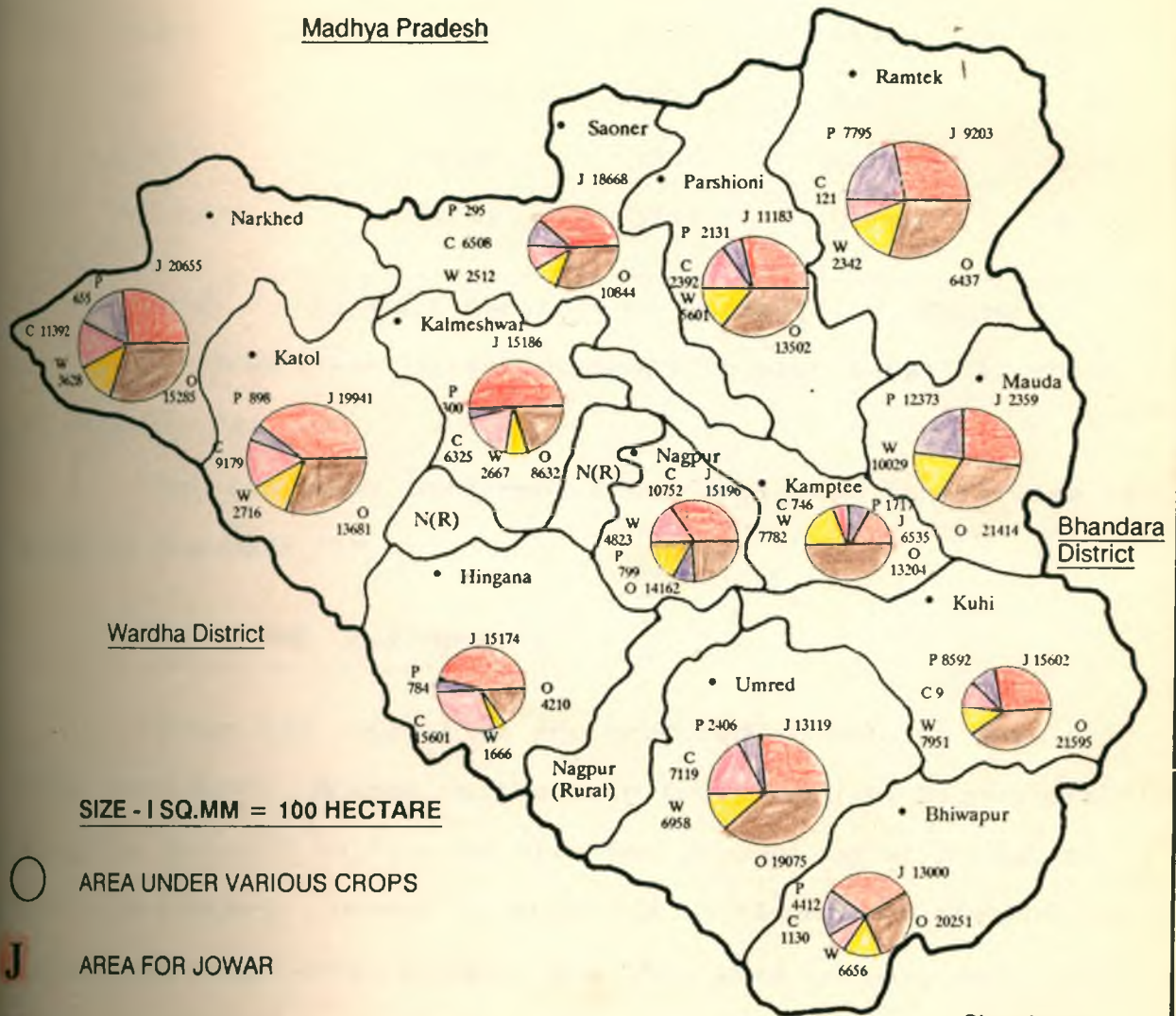
The comparative statement showing the tahsils reporting maximum and minimum percentage of area (taking district as a whole) of important crops for the year 1987-88 is given in the following table :-

NAGPUR DISTRICT

CROPPING PATTERN 85 - 86

Area in Hectares

Madhya Pradesh



Wardha District

Bhandara District

Chandrapur District

SIZE - 1 SQ.MM = 100 HECTARE

- AREA UNDER VARIOUS CROPS
- J AREA FOR JOWAR
- P AREA FOR PADDY
- C AREA FOR COTTON
- W AREA FOR WHEAT
- AREA FOR OTHER CROPS (TUR, MUG, UDID, OTHER PULSES, GROUNDNUT, SOYABIN, TILLY, GRAM AND JAWAS)

TABLE 2.12

Sr. No.	Name of important crops	Tahsil reporting	
		Maximum percentage of area.	Minimum percentage of area.
1.	2.	3.	4.
1.	Jowar	Kalmeshwar (10%)	Kamptee (0.08%)
2.	Cotton	Hingana (20%)	Kamptee (0.07%)
3.	Paddy	Mouda (20%)	Kalmeshwar (1.2%)
4.	Tur	Saoner (19%)	Kamptee (3.0%)
5.	Wheat	Mouda (15%)	Narkhed (2.0%)
6.	Groundnut	Katol (32%)	Umred (0.1%)

(Source :- District Agriculture Office, Z.P. Nagpur)

The area under different crops in each tahsil is shown in Appendix "4"

The area under different crops irrigated tahsil-wise is given in Appendix "5"

FRUITS AND VEGETABLES :

Fruits and vegetables are produced in only 5% area of total area sown. Orange is the main fruit crop in Nagpur district and this district is also popular for production of orange all over the country. Orange is produced in 93 percent area out of total area under fruit produce and this area is only about 2.13 percent of total area sown in the district.

Processing of Fruits and Vegetables :

NOGA factory at Nagpur was taken over by the Maharashtra Agro Industries Development Corporation in 1972 and is making steady progress. The capacity of the plant is 2,400 M.Ts. and the total investment as on 30th April 1986 amount to Rs. 77.23 lakhs.

2.14 IMPROVED AGRICULTURAL PRACTICES :

The position of improved seeds, pesticides and fertilizers in the district for the year 1987-88 and 1988-89 is given in the following tables :-

Improved Seeds Used

Sr. No.	Name of Variety	Seeds used (in quintals)	
		1987-88	1988-89
1.	2.	3.	4.
1.	Hybrid Jowar (C.S.H. No. 1,5,6,9)	5,806	3,407
2.	Cotton (Hybrid) (CH4,H4,PKV2)	558	480
3.	Cotton Improved (LI2A, 5766, L-47)	371	619
4.	Groundnut, (JL-249)	25	127
5.	Soyabin (JS-7244, MACS-13)	86	83
6.	Tur (B.D.N.2)	59	329
7.	Mug (Kopangoan)	37	83
8.	Paddy (Sakoli-6, Sindhewahi-1, Masuri etc.)	171	1,895
9.	Wheat, (NI 5439, HD 2189)	918	1,629
10.	Gram (Chafa, N-59)	2,319	902

(Source :- District Agriculture Office, Z.P., Nagpur)

Pesticides Used

(Under Protection Campaign Sanctioned by Deptt.)

Sr. No.	Name of Pesticide	Unit	Pesticides Used	
			1987-88	1988-89
1.	2.	3.	4.	5.
1.	Thimet 10 G.	M.T.	5,000	4,000
2.	B.H.C. 10 %	M.T.	117,500	53,500
3.	Carbon-diazin	M.T.	0,232	0,250
4.	Wettable Sulphur	M.T.	2,346	0,040
5.	Copper Oxychloride 50%	M.T.	2,716	1,006
6.	Endosulphan 35%	Litre	11,054	33,130
7.	Quinal Phos 25%	Litre	2,831	-
8.	Phosphomidon 85%	Litre	-	5,457
9.	Monochrotophos 36%	Litre	4,738	1,994

(Source :- District Agriculture Office, Z.P., Nagpur)

Fertilizers Used

(In Metric Tonnes)

Sr. No.	Name of Fertilizer	Fertilizers Used					
		Kharif	Rabbi	Total	Kharif	Rabbi	Total
1.	2.	3.	4.	5.	6.	7.	8.
1.	Urea	5,740	4,427	10,167	9,830	6,000	15,830
2.	Super Phosphate	2,928	458	3,386	2,293	2,000	4,293
3.	Mixture Fertilizers	8,227	4,375	12,602	11,908	1,000	12,908

(Source :- District Agriculture Office, Z.P., Nagpur)

In 1987-88 consumption of fertilizer in N,P,K. form per hectare in Nagpur district in kharif season is N=14.4, P=9.31, K=3.35 (In Kilogram per hectare) and in Rabbi season N=16.70, P=5.40, K=2.95.

In 1988-89 consumption of fertilizers in N,P,K. form per hectare in Kharif season is N = 25.19, P = 12.07, K = 4.4 and in Rabbi season N = 12.04, P = 6.2, K = 2.5.(Kg. per hectare).

2.15 IRRIGATION :

During the year 1985-86 the net irrigated area was only 56,056 hectares, while the net cultivated area was 539,900 hectares. Out of 56,056 area 26,606 hectares area was irrigated by cannels i.e. 47 percent and remaining area was irrigated by wells i.e. 53 percent. The percentage of irrigated area to total cultivated area was about 10 percent.

The position of tahsil-wise area under irrigation during the year 1985-86 and their percentage is shown in the following table :-

TABLE 2.13

Tahsil-wise Irrigation Area

Sr. No.	Tahsil	Net Irrigated Area (Area in hectares)	Percentage
1.	2.	3.	4.
1.	Nagpur (Urban)	889	1.58
2.	Nagpur (Rural)	3,572	6.37
3.	Hingana	1,269	2.26
4.	Kamptee	2,297	4.15
5.	Katol	3,888	6.93
6.	Narkhed	4,817	8.59
7.	Saoner	2,227	3.97
8.	Kalmeshwar	3,943	7.03
9.	Ramtek	10,849	19.35

Contd...

Contd...

1.	2.	3.	4.
10.	Parshioni	1,995	3.55
11.	Mouda	13,012	23.21
12.	Umred	1,796	3.20
13.	Bhivapur	1,352	2.41
14.	Kuhi	4,150	7.40
Total		56,056	100.00

(Source :- District Statistical Abstract, 1986-87)

As per 1982 livestock census report, there were 18,054 electric motor pumps and 2536 oil engines in the district. The maximum number of electric pumps were in Narkhed tahsil and the maximum number of oil engines in Umred tahsil.

2.16 MAJOR AND MEDIUM IRRIGATION PROJECTS ;

There are 3 major and 11 medium projects in the district. Irrigation potential by these projects is 165,328 hectares. In 1987-88 irrigated area was 27,434 hectares i.e. about only 16.5 percent of the total irrigation potential. The details of these projects is given below :-

TABLE 2.14

Major and Medium Irrigation Projects as on June, 1988

Sr. No.	Name of Project	Place ----- Tahsil	Tahsil benefitted	Irrigation Potential (in hect.)	Actual Area Irrigated during 87-88 (in hect.)
1.	2.	3.	4.	5.	6.

MAJOR PROJECTS

1)	Pench Project	Navegaon-Khairi ----- Ramtek	Nagpur, Kamptee, Parshioni, Ramtek, Mouda, Saoner.	104,476	25,138
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NAGPUR DISTRICT

MAJOR AND MEDIUM IRRIGATION PROJECTS 87 - 88



Contd.,,

1.	2.	3.	4.	5.	6.
2)	Lower-Wena Project	Wadegaon-Nand ----- Umred	Nagpur, Umred,	4,275	-
3)	Gosi-Khund Project	Gosi-Khund ----- Paoni	Bhiwapur, Kuhi,	14,760	-
MEDIUM PROJECTS -----					
4)	Ramtek Project	Navegaon ----- Ramtek	Ramtek	10,926	-
5)	Pandhrabodi Project	Pandhrabodi ----- Umred	Umred	862	-
6)	Wena Project	Peth ----- Nagpur	Hingana	1,214	-
7)	Kanholi Project	Kanholi ----- Nagpur	Hingana	4,244	238
8)	Chandrabhaga Project	Dorli ----- Saoner	Saoner	2,604	129
9)	Kesar Nala Project	Telkamthi ----- Saoner	Saoner	788	-
10)	Makardhokda Project	Makardhokda ----- Umred	Umred	3,365	394
11)	Mordham Project	Linga ----- Saoner	Saoner	1,315	112
12)	Umri Project	Umri ----- Saoner	Saoner	1,185	304
13)	Kolar River Project	Junewani ----- Saoner	Saoner Kalmeshwar	7,540	1119
14)	Jam River	Ridhora ----- Katol	Katol Narkhed,	7,774	-
Total				165,328	27,434

(Source:- District Statistical Abstract 1987-88)

2.17 MINOR IRRIGATION :

The details about completed Minor Irrigation projects

for the year 1987-88 is given in the following table :-

TABLE 2.15

(Area in Hectares)

Sr. No.	Tahsil	No. of M.I. Projects,	Potential created
1.	2.	3.	4.
1.	Nagpur	7	2,071
2.	Hingana	1	100
3.	Umred	8	3,092
4.	Kuhi	1	455
5.	Bhivapur	8	4,004
6.	Mouda	2	284
7.	Ramtek	6	1,631
8.	Parshioni	3	1,008
9.	Saoner	4	1,469
10.	Kalmeshwar	1	518
11.	Katol	4	1,415
12.	Narkhed	2	670
Total		47	16,717

(Source :- Irrigation Department, Nagpur)

It is observed from the above table that the total potential created by the Minor Irrigation projects was 16,717 hectares.

2.18 IRRIGATION WELLS :

The information regarding irrigation wells in Nagpur district during the year 1985-86 is shown in the following table :-

TABLE 2.16

Tahsil-wise Area Irrigated by Wells

Sr. No.	Tahsil	No. of irrigated wells.	No. of irrigated wells in use.	No. of irrigated wells not in use.	No. of other wells	Area irrigated by wells (Hectares)
1.	2.	3.	4.	5.	6.	7.
1.	Nagpur (Urban)	1,342	-	341	1,001	289
2.	Nagpur (Rural)	3,177	1,879	491	807	3,197
3.	Hingana	2,696	1,760	212	724	1,190
4.	Kamptee	1,323	412	355	556	1,696
5.	Katol	8,016	3,657	1,751	2,608	3,888
6.	Narkhed	10,249	1,772	2,081	6,396	4,567
7.	Saoner	6,102	3,097	2,322	683	2,101
8.	Kalmeshwar	6,806	3,331	1,830	1,645	3,761
9.	Ramtek	910	693	134	83	3,812
10.	Parshioni	986	-	90	896	424
11.	Mouda	1,065	575	36	454	3,410
12.	Umred	1,670	750	871	49	534
13.	Bhivapur	1,022	595	427	-	408
14.	Kuhi	1,304	685	566	53	173
Total		46,668	19,206	11,507	15,955	29,450

(Source :- District Statistical Abstract, 1986-87)

2.19 LIFT IRRIGATION ;

Upto 1987-88 there are 14 lift irrigation projects in the district and 199 hectares land is irrigated by them.

2.20 LIVESTOCK ;

The latest live-stock census was conducted in 1982. The comparable figures of livestock and poultry are presented in the table are of 1978 and 1982.

TABLE 2.17

Sr. No.	Item	1978	1982
1.	2.	3.	4.
1.	<u>Cattles</u>		
	a) Males over 3 years.	215,123	216,204
	b) Females over 3 years.		
	i) In Milk	75,121	71,375
	ii) Dry and not calved even once.	153,794	160,462
	iii) Total females	231,717	233,431
	c) Total Cattles.	651,880	654,956
2.	<u>Buffaloes</u>		
	a) Males over 3 years.	2,179	1,985
	b) Females over 3 years.		
	i) In milk	21,487	18,604
	ii) Dry and not calved even once.	19,213	19,961
	iii) Total females	41,286	38,983
	c) Total Buffaloes	69,419	61,059
3.	Sheeps	16,571	21,802
4.	Goats	248,256	278,558
5.	Other live-stock	11,398	52,583
6.	Total live-stock	997,524	1,070,037
7.	Poultry	332,759	377,015

(Source :- Live-stock Census 1982)

The tahsil-wise table is given in Appendix '6'. It is seen from the above table that the cattle has been increased

during 4 years. As regards cows and buffaloes in milk, it appears that there is a decreasing trend. It reveals from the tahsil-wise table that cows in milk and also buffaloes in milk are concentrated in Nagpur tahsil.

2.21 AGRICULTURAL IMPLEMENTS :

The tahsil-wise position of agricultural implements as per 1982 live-stock census is given in the following table :-

TABLE 2.18
Agricultural Implements

Sr. No.	Tahsil	No. of Ploughs		No. of Sugar-cane Crusher		Oil-Engines	Elect-ric Engines	Tractor
		Wooden	Iron	Work-ed by power	Work-ed by bullocks			
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	Nagpur	3,880	594	-	1	261	1,557	12
2.	Hingana	3,037	651	-	-	215	1,666	5
3.	Kamptee	3,685	97	1	-	86	1,040	4
4.	Katol	4,945	1,016	2	2	199	1,883	3
5.	Narkhed	4,140	773	9	6	160	4,440	3
6.	Saoner	4,908	234	-	-	67	2,046	8
7.	Kalme-shwar,	2,396	234	-	-	88	3,033	5
8.	Ramtek	6,448	121	3	3	172	256	10
9.	Fansh-ioni	4,589	161	2	1	15	315	2
10.	Mouda	8,022	43	1	-	216	712	16
11.	Umred	7,584	468	-	-	507	553	8
12.	Bhivapur	9,981	151	-	-	191	179	1
13.	Kuhi	8,216	120	-	-	359	374	4.
Total		71,831	4,663	18	13	2,536	18,054	81

(Source :- 1982 Live stock Census)

2.22 As per 1982 Live Stock Census, the total live-stock in Nagpur district is 10.7 lacs while in 1978 it is 9.9 lacs. Among total live-stock in 1982, total cattles are 61.20 percent and buffaloes are 5.70 percent. The total increase in live stock during 1982 is 1.07 percent as compared to 1978 census. The increase in total cattles is 0.47 percent and decrease in total buffaloes is 3.69 percent.

The total poultry in 1982 is 3.7 lacs while it is 3.3 lacs, during 1978 i.e. 1.13 percent increase.

2.23 VETERINARY COVERAGE ;

The following table indicates the tahsil-wise position of existing veterinary facilities in Nagpur district during 1987-88.

TABLE 2.19

Veterinary Facilities

Sr. No.	Tahsil	Veterinary Hospital	Veterinary Dispensary.	Aid Centres	A.I. Centres	Other (specify)	Total
1.	2.	3.	4.	5.	6.	7.	8.
1.	Nagpur	1	4	4	20	-	29
2.	Hingana	-	2	3	12	-	17
3.	Kamptee	-	2	2	7	-	11
4.	Katol	-	4	5	22	-	31
5.	Narkhed	-	3	5	14	-	22
6.	Saoner	-	4	3	13	-	20
7.	Kalmeshwar	-	3	-	9	-	12
8.	Ramtek	-	4	3	11	-	18
9.	Parshioni	-	2	3	7	-	12
10.	Mouda	-	2	2	9	-	13

Contd...

Contd...

1.	2.	3.	4.	5.	6.	7.	8.
11.	Umred	-	4	2	11	-	17
12.	Bhivapur	-	2	2	9	-	13
13.	Kuhi	-	2	3	9	-	14
Total		1	38	37	153	-	229

(Source :- District Statistical Abstract, 1987-88)

2.24 DAIRY DEVELOPMENT ;

The information regarding Dairy Societies in Nagpur district during the year 1987-88 is given in the following table :-

TABLE 2.20

Dairy Societies

Sr. No.	Tahsil	No. of Societies	No. of Members	Percentage
1.	2.	3.	4.	5.
1.	Nagpur	11	685	5.52
2.	Saoner	28	1,928	14.07
3.	katol	25	1,576	12.56
4.	Narkhed	17	1,268	8.54
5.	Bhivapur	11	508	5.53
6.	Umred	8	614	4.03
7.	Kuhi	11	621	5.52
8.	Ramtek	14	1,606	7.03
9.	Parshioni	9	611	4.54
10.	Mouda	20	915	10.04

Contd...

Contd.,,

1.	2.	3.	4.	5.
11.	Hingana	18	935	9,04
12.	Kamptee	6	325	3,02
13.	Kalmeshwar	21	1,425	10,56
Total		199	13,017	100,00

(Source :- Dairy Development Deptt., Nagpur)

In Nagpur district, these were only 199 Dairy Societies during the year 1987-88. Out of these 199 societies about 57 percent societies were located in Saoner, Katol, Kalmeshwar, Mouda and Hingana only.

There were 14 milk routes in the district as on March, 1988. The Dairy Development Department proposes to expand two routes during the year 1988-90.

There are 3 chilling units, one at Saoner having capacity of 1000 litres, second at Dudhala in Katol tahsil having capacity of 1000 litres and third at Khulsapar in Katol tahsil having capacity of 500 litres. One more chilling unit is proposed at Paoni (near Deolapar) having capacity of 300 litres during 1990-91.

Target of milk collection by the end of 1991 is given below :-

Sr. No.	Year	No. of Societies	No. of Members
1.	2.	3.	4.
1.	1986-87	180	14,000
2.	1987-88	200	16,000
3.	1988-89	225	18,000

Contd.,,

Contd.,,

1.	2.	3.	4.
4.	1989-90	250	20,000
5.	1990-91	275	22,000

(Source :- Dairy Development Deptt., Nagpur)

2.25 FOREST ;

The area under forest was 171,100 hectares in Nagpur district during the year 1985-86. It works out 17.46 percent as compared to total geographical area in the district. The maximum area under forest i.e. 55 percent was in Ramtek tahsil. At other tahsils i.e. Parshioni, Umred, Bhivapur, Hingana, Kuhi and Katol the area under forest was respectively 29%, 22%, 17%, 16%, 15% and 14% as compared to the total geographical area of tahsils. Every tahsil in the district has area under forest.

The area under forest for different types in Nagpur district during the year 1987-88 was as under :-

(Area in Sq. Km.)

Zone	Reserved	Protected	Unclassified	Total
1.	2.	3.	4.	5.
Revenue	-	-	513.03	513.03
Forest	1478.43	822.76	-	2301.19
Total,	1478.43	822.76	513.03	2814.22

(Source :- District Statistical Abstract, 1987-88)

The minor forest produce in Nagpur district are Bamboo, grass, lakh, bidi-patta, hinda, Moha, dink, etc. The Forest Department has sold total forest produce worth Rs.1154 lacs. during the year 1987-88.

The details are given in the following table :-

TABLE 2.21

Sr. No.	Forest Produce	Value (in Rs.)
1.	2.	3.
1.	Timber	86,549,000
2.	Fuel	10,530,000
3.	Bamboo	1,957,000
4.	Grass	178,000
5.	Bidi Patta	15,251,000
6.	Dink	80,000
7.	Other	887,000
	Total...	115,432,000

(Source :- District Statistical Abstract, 1987-88)

2.26 FISHERIES :

Fisheries development activities in the district are restricted to inland water only. Rivers, tanks and ponds being the chief sources for fishing. Under Pench Irrigation project a reservoir has been constructed recently for development of fishery. Projects at Khindsi and Wena are under construction for this purpose. The fish seed production will be carried out by fishery department. The area of reservoir is about 11,905 hectares. The important varieties of fish in the district are Murrel, Dhadkya, Botri, Podhan, Tambu, Karvadi, Dhoana, Gama, Kantva, Chandi, Zinga, Kolus and Singhals. Fishermen in the district belong to the communities known as Dheemar, Bhoi and Kahar. The population engaged in fishing activity was 5,955. In the district total available water spread is 8,146 hectares. Out of this 5,796 hectares is

useful for fisheries. The department-wise ownership of tanks, their hectarage, suitable for fish culture at the end of 1987-88 is enumerated below.

Sr. No.	Ownership of Tanks	Total Tanks		Suitable - Tanks for fish culture		Tanks under fish culture	
		No.	Area (hect-ares)	No.	Area (hect-ares)	No.	Area (hect-ares)
1.	2.	3.	4.	5.	6.	7.	8.
1.	Irrigation Department	59	5,871	59	5,871	59	5,871
2.	Zilla Parishad	329	2,111	329	2,111	329	2,111
3.	Gram Panchayat	11	37	11	37	11	37
4.	Govt. Fisheries Deptt./M.S.E.B.	3	107	3	107	3	107
5.	Nagar Parishad	7	314	7	314	7	314
6.	Other (Private)	7	46	7	46	7	46
Total		416	8,146	416	8,146	416	8,146

(Source :- District Fisheries Office, Nagpur)

INLAND FISHERIES :

At present there is inland fishing in the district. The Fishery Department has introduced inland fishery and estimated that about 690 Km. as suitable area.

The details are given below :-

Inland Fisheries In Nagpur District During 1987-88

Sr. No.	Tahsil	Total area suitable for fish culture - pond, lakes & reservoir (in hect.)	Total area brought under Pisci-culture (in hect.)	Inland fish production, (in MT.)	Value of fish catcher to fish producer, (Lakh)	Imported fish seed used for Pisci-culture,
1.	2.	3.	4.	5.	6.	7.
1.	Nagpur	753	383	351	35.04	14.85
2.	Hingana	393	267	160	16.03	7.78
3.	Kamptee	157	4	-	0.40	0.25
4.	Katol	433	138	174	17.36	6.93
5.	Narkhed	204	40	83	8.28	1.13
6.	Saoner	884	750	355	35.53	8.20
7.	Kalmeshwar	330	242	132	13.23	7.20
8.	Ramtek	1,510	810	840	84.00	20.12
9.	Parshioni	1,796	1,793	850	85.03	5.67
10.	Mouda	128	44	55	5.50	1.98
11.	Umred	963	925	480	48.00	17.28
12.	Bhivapur	623	135	261	26.06	4.15
13.	Kuhi	312	260	434	43.42	14.20
Total		8,486	5,791	4,175	417.88	109.74

(Source :- District Statistical Abstract, 1987-88)

2.27 CO-OPERATION ;

The number of different types of co-operative societies working in Nagpur district as on 30-6-87 and 30-6-88 is given in the following table :-

TABLE 2.22

Sr. No.	Description	Numbers		Membership	
		6/87	6/88	6/87	6/88
1.	2.	3.	4.	5.	6.
1.	Credit Societies	1,015	1,031	475,358	496,672
2.	Non-Credit Societies	2,394	2,392	223,778	258,534
I. Agricultural Credit Societies					
i)	Dist. Central Co-op. Bank	1	1	1,965	2,025
ii)	Dist. Land Development Bank	1	1	27,817	27,980
iii)	Primary Agricultural-Co-op. Societies.	598	583	164,241	168,777
iv)	Other (Specify)				
	a) Grain Banks	-	-	-	-
	b) Agricultural Service-Society.	-	-	-	-
II. Non Agricultural Societies					
i)	Industrial Co-op. Bank	-	-	-	-
ii)	Urban Banks and Urban Credit Societies.	10	10	82,000	85,000
iii)	Salary Earners Society.	317	329	175,116	180,905
iv)	Mills and Factory - Workers Society.	2	2	4,389	4,389
v)	Thrift and Credit	-	-	-	-
vi)	Other	86	105	16,750	30,596
III. Agril. Non-Credit Societies					
i)	Agricultural Marketing	24	19}	21,780	22,137
ii)	Agricultural Production and Processing.	16	24}		
iii)	Fisheries	61	62	6,808	6,967
iv)	Animal Husbandary - society.	2	4	46	93
v)	Irrigation Society	10	14	597	980
vi)	Farming Co-op. Society	10	10	749	749
vii)	Agricultural Processing				
	a) Poultry	3	10	293	877
	b) Crop Protection	-	-	-	-
	c) Milk Societies	186	199	12,711	13,017
viii)	Other (Specify)				
	a) Flour Mill	-	-	-	-
	b) Horticulture Society	-	-	-	-
IV. Non-Agril. Non-Credit Societies.					
i)	Handloom/Powerloom Weavers.	413	434	40,050	40,388
ii)	Spinning	2	2	3,950	3,969
iii)	Other Industrial Society	232	255	13,653	15,378

Contd...

Contd.,,

1.	2.	3.	4.	5.	6.
iv)	Consumers Stores	315	327	52,894	80,261
v)	Housing Society	933	954	52,132	53,739
vi)	Supervision Society	1	1	371	371
vii)	Other (Specify)				
	a) Industrial Estate	2	3	105	155
	b) Transport	8	8	648	648
	c) Printing Press	19	20	804	854
	d) Dist. & Divisional Co-op. Boards.	2	2	1,203	1,217
	e) Labour Contract	106	112	11,711	14,273
	f) Federation	6	6	3,644	2,731
Total		3,409	3,423	699,136	755,206

(Source :- District Dy. Registrar Co-op. Societies, Nagpur)

In Nagpur district there were total 3,423 Co-operative Societies at the end of June 1988 and total members were 755,206. Out of these total societies 1,031 i.e. 30 percent were Credit Societies and out of these 583 i.e. 17 percent were Agricultural Credit Societies and remaining 83 percent were other societies. There were 199 Milk Societies and 62 Fishing Societies as on 30-6-1988.

As regards membership out of total membership 496,672 members (65 percent) enrolled in Credit Societies and remaining 35 percent were in Non-Credit Societies.

District Co-operative Banks :

The Nagpur District Central Co-operative Bank was the major co-operative banking institution which had 80 branches during the year 1987-88 covering all tahsils in the district. The main function of bank was to supply agricultural finance through affiliated primary societies.

The progress made by co-operative bank is given below :-

Sr. No.	Particulars	1986-87	1987-88
1.	Branches	77	80
2.	Membership		
	i) Societies	1,802	1,862
	ii) Individual	163	163
3.	Share Capital	18,700,000	2,700,000
4.	Working Capital	438,100,000	485,200,000
5.	Loans Advanced		
	i) Short Term	168,400,000	191,100,000
	ii) Medium Term	82,400,000	98,300,000
	iii) Long Term	-	-

(Source :- District Central Co-operative Bank, Nagpur)

Land Development Bank :

The progress of Land Development Bank in the district is given below for the years 1986-87 and 1987-88.

(Rs. in lacs)

Sr. No.	Description	1986-87	1987-88
1.	Number of Branches	14	14
2.	Share Capital	11,705.00	11,585.00
3.	Advance	81.99	55.25
4.	Recovery	98.45	106.95
5.	Loans outstanding	103,159.00	102,526.00

(Source :- Land Development Bank, Nagpur)

2.28 INDUSTRY :

Nagpur city is an important industrial and commercial centre in Maharashtra. Industrial development has been mostly confined urban areas only. Rural areas are not industrialised and depend mostly on agriculture. The non-agricultural employment is, however, in traditional crafts with locally available raw materials and by and large for local demands. Traditional crafts are conducted in household and cottage industry scale and included handloom weaving, oil ghanis, tanning and leather goods manufacturing, pottery and bricks, cane and bamboo work, dyeing and printing etc. Nagpur handloom saris are famous and have a good market all over the State. The well-known silk bounded cloth is exported to various parts of the country. The large scale units comprised of cotton textile, cotton ginning and pressing, saw milling, paper and straw-board, ceramics, ferro-manganese and steel-rolling etc.

Nagpur district is under-developed district so far as industrialisation is concerned. The government of Maharashtra has classified this district in 'C' category for MIDC area Nagpur and 'D' category for remaining other tahsils of district (except M.I.D.C Nagpur) for providing incentives to the entrepreneurs. At present, there are two M.I.D.Cs., one at Nagpur and other at Kalmeshwar, one Co-operative industrial Estate and one mini Co-operative Industrial Estate at Nagpur are functioning in the district.

in the district. There are 56 large and medium scale industries in Nagpur district.

There are 8,152 provisional and 3833 permanent small scale industries (registered with D.I.C.) in the district having employment potential of 74,417 persons.

The important small scale industries are oil mills, dal mills, fabrication and agro-based industries and industries dealing with various services in engineering.

TABLE 2,23

Existing Status of Small Scale Industries as on 31-3-88

Sr. No.	Category	No. of units Registered		Employment
		Provisional	Permanent	
1	2	3	4	5
1.	Agro-based	438	267	4,737
2.	Forest-based	491	351	5,052
3.	Mineral based	264	50	1,884
4.	Food industries	508	184	4,152
5.	Engineering and allied	3,296	1,505	29,806
6.	Chemical	1,237	617	11,124
7.	Animal Husbandary	90	26	696
8.	Building Material	464	144	4,148
9.	Other Industries	1,364	689	12,818
Total		8,152	3,833	74,417

(Source:-District Industries Centre Action Plan, 1988-90)

Existing Status of Large Scale & Medium Scale Industries

(as on 1-12-1988)

Sr. No.	Category	No. of units		Employment
		3	4	
1	2	3	4	5
1.	Agro-Based	7		14,396
2.	Forest based	5		841
3.	Mineral based	-		-
4.	Food Industries	6		2,474
5.	Engineering & allied	19		6,071
6.	Chemical	2		139
7.	Animal Husbandary	-		-

Contd...

Contd.,,

1.	2.	3.	4.
8.	Building Material	-	-
9.	Other Industries	17	7,847
Total		56	31,768

(Source:-District, Industries Center, 1988-90)

Existing Status of Artisian Oriented Units (KVIB)

(as on 31-3-88)

Sr. No.	Category	No. of units	Employment
1	2	3	4
1.	Agro based	83	185
2.	Forest based	455	980
3.	Mineral based	-	-
4.	Food Industry	-	-
5.	Engineering & allied	-	-
6.	Chemical	5	24
7.	Animal Husbandary	201	474
8.	Building Material	-	-
9.	Other Industries	66	152
Total		810	1,815

(Source :-District Industries Centre Action Plan 1988-90)

2.29 As per 1981 Population Census, the number of workers engaged in house-hold activities, manufacturing, processing and servicing was about 49,900 in Nagpur district. Out of these 14,500 were in rural area and 35,400 in urban areas.

This accounts 5.30 percent of the total workers in the district.

As per Economic Census 1980 the number of workers in Non-Agricultural establishments for Nagpur district is given below:-

Sr. No.	Major Industry Group	Number of Workers		
		Rural	Urban	Total
1	2	3	4	5
01.	I - Mining	5,174	717	5,891
02.	II - Manufacturing and III - Servicing	31,971	85,261	1,17,232
03.	IV - Power , Gas & Water	4,774	3,623	8,397
04.	V - Construction	4,094	1,111	5,205
05.	VI-A- Wholesale and Retail Trade.	8,871	42,766	51,637
06.	VI-B- Hotels and Restaurants	2,099	8,470	10,569
07.	VII-A- Transport	476	13,884	14,360
08.	VII-B- Storage and Warehousing	674	1,271	1,945
09.	VII-C- Communication	375	3,347	3,722
10.	VIII - Finance, Insurance, Business.	6,486	9,456	15,942
11.	IX - Community Services	27,276	67,732	85,008
12.	X - Other	130	589	719
Total		87,400	231,227	318,627

(Source :- Economic Census, 1980)

It is observed from the above table that the percentage of workers in sector 'Manufacturing and Servicing' is higher (36.79 percent) and is followed by the sector 'Community Services' (26.67 percent) and 'Wholesale and Retail Trade' (16.20 percent).

2.30 INDUSTRIES IN THE DISTRICT :

The information regarding existing industries registered under Factory Act in Nagpur district is given below :-

TABLE 2.24

Industry-wise distribution of Factories in 1987

Sr. No.	Major Group	No. of Units Registered	No. of Units closed	Working Units which are submitting Reports	No. of Workers		
					Male	Female	Total
1.	2.	3.	4.	5.	6.	7.	8.
01.	00 Agricultural Production,	1	-	1	23	23	46
02.	20-21 Manufacture of Food Products,	102	15	82	2,745	392	3,137
03.	22 Manufacture of Beverages, Tobacco and Tobacco products.	20	1	19	716	41	757
04.	23 Manufacture of Cotton Textile.	32	5	21	5,388	423	5,811
05.	24 Manufacture of Wool, Silk and Synthetic fibre textiles.	6	1	5	74	45	119
06.	25 Manufacture of Jute, Hemp and Mesta textiles.	1	-	1	49	-	49
07.	26 Manufacture of tile products.	6	2	4	116	83	199

Contd...

Contd.,,

1.	2.	3.	4.	5.	6.	7.	8.
08.	27						

	Manufacture of	570	107	383	2,304	12	2,316
	Wood and wood						
	products,						
	furniture &						
	fixture.						
09.	28						

	Manufacture of	57	5	47	1,707	39	1,746
	paper & paper						
	products and						
	printing, pub-						
	lishing and						
	allied industries.						
10.	30						

	Manufacture of	26	1	24	1,491	31	1,522
	rubber, plastic,						
	petroleum and						
	coal products.						
11.	31						

	Manufacture of	62	3	51	1,618	298	1,916
	chemical and						
	chemical products.						
12.	32						

	Manufacture of	87	8	75	4,196	2,669	6,865
	Non-metallic						
	mineral products.						
13.	33						

	Basic Metal and	75	9	61	6,720	104	6,824
	Alloys Industries.						
14.	34						

	Manufacture of	49	3	40	1,873	19	1,892
	metal products &						
	parts except						
	machinery &						
	transport						
	equipments.						
15.	35						

	Manufacture of	57	7	49	1,607	14	1,621
	Machinery,						
	machine tools &						
	parts except						
	Electrical						
	Machinery.						

Contd.,,

1.	2.	3.	4.	5.	6.	7.	8.
16.	36 -- Manufacture of Electrical machinery, Apparatus, Appliances and supplies and parts.	24	4	17	473	67	540
17.	37 -- Manufacture of transport equipment and parts.	9	-	7	915	8	923
18.	38 -- Other manufacturing industries.	7	-	7	69	55	124
19.	40 -- Electricity	4	-	4	707	25	732
20.	41 -- Gas and Steam	4	1	3	147	2	149
21.	42 -- Water works and supply.	2	-	2	76	1	77
22.	51 -- Activities allied to construction.	1	-	1	2,193	11	2,204
23.	61 -- Wholesale trade in fuel, light, chemicals, perfumery, ceramics and glass.	4	-	4	17	-	17
24.	62 -- Wholesale trade in wood, paper, other fabrics, skins and inedible oils.	5	-	5	29	-	29
25.	68 -- Retail trade in others.	5	-	5	44	-	44
26.	72 -- Air transport.	1	1	-	-	-	-

Contd...

Contd.,,

1.	2.	3.	4.	5.	6.	7.	8.
27.	74						
	Storage and warehousing,	3	1	1	8	-	8
28.	96						
	Personal services	2	-	2	26	-	26
29.	97						
	Repair services	30	2	28	1,572	13	1,585
Total		1,253	175	947	37,886	4,381	42,267

(Source :- District Statistical Abstract, 1987-88)

2.31 IMPORTANT INDUSTRIES :

In Nagpur district, Nagpur city is an important industrial and commercial centre in Maharashtra. Industrial development has remained mostly confined to urban areas only. Rural areas are not industrialised and depend mostly on agriculture. The non-agricultural employment is, however, in traditional crafts worked with locally available raw material and by and large for local demand. The large scale units comprise of cotton textile, cotton ginning and pressing, saw milling, paper and straw-board, ceramics, ferro-manganese, steel re-rolling etc. The cotton textile mills, the Empress Mill and Model Mill located in Nagpur city are the largest composite mills employing more than 12,000 workers. Besides there are six large scale cotton ginning and pressing units. There is a unit of manufacturing gray board from waste paper.

Government Printing Press, Shivraj Fine Art Litho Works, Shakti Offset Works and All India Reporter Press are the four large units employing over 1,200 workers. The unit manufacturing safety fuses for blasting gun powder is located at Kamptee Road,

Small-pox and cholera vaccines are manufactured at the Vaccine Institute, Nagpur. At Itwari there is a unit manufacturing stoneware, jars, cups and saucers. There is one ferro-manganese unit at Kamptee. Bus bodies are built at Government Central Workshop at Nagpur. Again at Kamptee Road, there is the South-Eastern Railway narrow gauge workshop. Leaf springs and other ancillaries are also manufactured by the Canara Workshop Ltd., Nagpur

Nagpur handloom saries are famous and have a market all over the State. The well known silk bounded cloth is exported to various parts of the country. Mining industry is of considerable importance in the district because of its rich manganese ore deposits. Rope manufacturing and saw-milling units at Nagpur. The other units of importance are cement pipes manufacturing units, sulphuric acid, carbon-dioxide, paints, varnishes and boiled oils units at Kanhan-Kamptee areas.

2.32 ECONOMIC CENSUS - 1980 :

The number of establishments in different sectors as per Economic Census 1980 is given in the following table :-

T A B L E

Sr. No.	Sector	No. of Establishments		
		Rural	Urban	Total
1.	2.	3.	4.	5.
1.	Manufacturing and repair services.	13,311	23,827	37,148
2.	Wholesale and retail trade	6,220	23,679	29,899
3.	Transport, storage and warehousing and financing etc. services.	784	5,942	6,726
4.	Community, social and personal services.	5,893	7,990	13,883

Contd.,,

1.	2.	3.	4.	5.
5.	Mining and Quarrying	145	18	163
6.	Electricity, Gas & Water	190	136	326
7.	Construction	161	387	548
8.	Restaurant & Hotels	1,024	2,491	3,515
9.	Others	11	110	121
Total		27,897	64,716	92,613

(Source :- Economic Census, 1980)

As per Economic Census 1980, in Nagpur district the total number of non-agricultural establishments was 92,613. Out of these 31.1 percent were in rural area while 68.9 percent were in urban area. Out of total establishments, 85,259 (92.1%) establishments were in private sector, 6,000 (6.4%) establishments were in public sector and only 1,354 (1.5%) establishments were in co-operative sector.

2.32-A MINING ;

The district is rich in mineral wealth. Coal, manganese, iron ore, limestone and clay deposits are the main minerals found. The coal-fields are known as Kamptee coal-field, Umred coal-field in the district.

2.33 ELECTRICITY ;

In the district electricity was introduced by private firm as early as 1905. Later in 1950, a thermal power station with installed capacity of 30,000 Kilo Watts was set up at Khaparkheda near Nagpur. This station is supplying electricity not only to the district in Nagpur division, but also to three districts in Madhya Pradesh and is inter-connected with

Ballarshah Power Station in Chandrapur district. The Turbo alternator was set-up in 1960 to raise the capacity from 30,000 Kilo Watts to 60,000 Kilo Watts.

At present there are two thermal power stations in the district, one at Khaparkheda and another at Koradi. Very soon power supply will be made available from Pench Hydro-Electric Project. Power availability from these two thermal power stations during 1985-86 was as follows -

Thermal Power Stations		Budget estimate 1985-86 (in million units)	
1)	Khaparkheda	...	200
2)	Koradi 1 to 5	...	3,770
3)	Koradi 6	...	1,150
4)	Koradi 7	...	1,150

The following table indicates tahsil-wise number of villages and villages electrified at the end of March, 1989.

TABLE 2.25

No. of villages electrified as on 31-3-1989

Sr. No.	Tahsil	No. Of villages	Villages electrified,	Percentage,	No. of pumps connected,
1.	2.	3.	4.	5.	6.
1.	Nagpur	145	145	100.00	4,603
2.	Hingana	123	123	100.00	3,518
3.	Kamptee	74	74	100.00	2,285
4.	Katol	169	169	100.00	7,901
5.	Narkhed	132	132	100.00	9,973
6.	Saoner	125	125	100.00	4,607
7.	kalmeshwar	91	91	100.00	6,190
8.	Ramtek	149	149	100.00	1,056
9.	Parshioni	109	109	100.00	1,452

1.	2.	3.	4.	5.	6.
10.	Mouda	121	121	100.00	1,789
11.	Umred	153	153	100.00	1,386
12.	Bhivapur	112	112	100.00	1,083
13.	Kuhi	155	155	100.00	1,527
Total		1,658	1,658	100.00	47,390

(Source :- M.S.E.B., Nagpur)

It is observed that the electrification is 100 percent at Nagpur district. 47,390 electric pumps are connected with supply in the district. Narkhed, Katol and Kalmeshwar have more number of electric pumps connected compared with other tahsils of the district.

The consumption of electricity in Nagpur district during the year 1988-89 is as under:-

Sr. No.	Purpose	KWH in lakhs	Per capita consumption
1.	2.	3.	4.
1.	Domestic	162,459,799	62.75
2.	Commercial	44,580,332	17.22
3.	Industrial	281,817,205	108.85
4.	Public Lighting	7,069,384	0.27
5.	Agriculture	1,761,206	0.68
6.	Other purpose	80,946,769	31.26

(Source:- M. S. E. B., Nagpur)

It will be seen from the above table that the per capita consumption was high for industrial purpose followed by domestic purpose.

2.34 NON-CONVENTIONAL WAYS OF ENERGY ;

The tahsilwise number of Gobar Gas Plants installed in Nagpur district from the year 1983-84 is given in the following table :-

Sr. No.	Tahsil	1983-84	84-85	85-86	86-87	87-88	Total
1.	2.	3.	4.	5.	6.	7.	8.
1.	Nagpur	82	166	64	101	111	474
2.	Kamptee	61	67	158	52	58	396
3.	Hingna	62	132	251	183	115	743
4.	Saoner	39	115	127	103	152	536
5.	Kalmeshwar	86	101	107	182	101	577
6.	Katol	68	140	106	127	105	546
7.	Narkhed	60	125	115	72	105	477
8.	Ramtek	57	151	130	105	171	608
9.	Parshioni	51	50	160	125	105	491
10.	Mouda	88	160	130	51	75	504
11.	Umred	191	131	169	125	128	744
12.	Bhivapur	177	121	181	145	150	774
13.	Kuhi	71	101	105	131	114	522
Total		1,087	1,560	1,803	1,502	1,490	7,442

(Source :- Agriculture Department, Z.P., Nagpur)

The tahsil-wise number of Smokeless Chullahs installed in Nagpur district from the year 1984-85 is shown in the following table -

TABLE 2.27

Sr. No.	Tahsil	1984-85	85-86	86-87	87-88	Total
1	2	3	4	5	6	7
1.	Nagpur	725	426	250	323	1,714
2.	Kamptee	401	465	250	343	1,459
3.	Hingana	100	400	310	271	1,081
4.	Katol	100	509	540	283	1,432
5.	Narkhed	---	475	311	283	1,069
6.	Saoner	100	350	360	283	1,093
7.	Kalmeshwar	100	495	240	283	1,118
8.	Ramtek	725	500	850	363	2,438
9.	Mouda	100	473	254	273	1,100
10.	Kuhi	725	450	250	283	1,561
11.	Parshioni	100	470	420	323	1,313
12.	Umred	725	499	250	343	1,817
13.	Bhivapur	728	450	249	263	1,690
Total		4,629	5,952	4,534	3,770	18,885

(Source :- Agriculture Department Z. P., Nagpur)

2.35 RAILWAY :

Nagppur is situated on Bombay-Calcutta rail link and Delhi-Madras trunk routes. The total length of the railway routes in the district is 382.81 Km. as on 31-3-1988.

Sr. No.	Railway Routes	Length in Km.
1.	Broad Gauge	
	i) Single	146,88
	ii) Double	104,70
2.	Meter Gauge	-
3.	Narrow Gauge	131,23
	Total Railway Routes,	382,81

(Source :-District Statistical Abstract, 87-88)

2.36 ROADS ;

The district is well connected by roads with adjoining districts that is Wardha, Chandrapur, Bhandara, Amravati and some of the districts of Madhya Pradesh. The district head-quarter is connected with important towns, market centres and villages. The total road length in the district is 6,769 km. including motorable roads.

Position of road length according to different types in Nagpur district as on 31-3-1988 is given in the following table-

TABLE 2.28

Road length in Nagpur district as on 31-3-1988

Sr. No.	Type	(Length in Km.)			
		Non-Municipal Roads			Municipal Roads
		P.W.D.	Z.P.	Total	
1	2	3	4	5	6
1.	National Highway	230	-	230	62
2.	State Highway	689	147	836	86
3.	Major District Roads	273	372	645	-
4.	Other District Roads	256	419	675	-

Contd...

Contd.,,

1,	2,	3,	4,	5,	6,
5,	Village Roads (Plan)	243	2,512	2,755	-
6,	Other (Non-Plan)	219	-	219	1,261
Total		1,910	3,450	5,360	1,409

(Source :- District Statistical Abstract 1987-88)

AIR SERVICE ;

Nagpur is connected by Air with some important cities in the country. Nagpur city is having Air-Port at Sonegaon. Indian Airlines air travel facility is available from Nagpur to Bombay, Pune, Delhi, Calcutta, Hyderabad and Bhubaneshwar.

Recently started Vayudoot Passenger Service is also available from Nagpur to Jabalpur, Bhopal, Aurangabad, Indore and Bombay. Some more cities are likely to be connected in near future .

2.37 MOTOR VEHICLES ;

The following table indicates the number of Motor Vehicles in Nagpur district -

TABLE 2.29

Sr. No.	Item	Number as on	
		31-3-87	31-3-88
1	2	3	4
01.	Motor-Cycles, Scooter etc.	106,538	128,319
02.	Motor Cars/Jeeps	10,782	11,967
03.	Taxi Cabs	619	736
04.	Auto Rickshaws	4,123	4,676
05.	State Carriages		
	a) Diesel	800	643
	b) Petrol	-	-

Contd.,,

Contd.,,

1.	2.	3.	4.
06.	Lorries		
	a) Private Carriers		
	i) Diesel	1,320	1,346
	ii) Petrol	125	133
	b) Public Carriers		
	i) Diesel	6,643	7,089
	ii) Petrol	698	727
07.	Ambulance	105	108
08.	School Buses	16	16
09.	Private Service Vehicles	82	98
10.	Trailors	1,216	1,339
11.	Tractors	1,188	1,308
12.	Others	125	327
Total		134,380	158,842

(Source :- District Statistical Abstract 1986-87,87-88)

2.37(A) COMMUNICATION MEDIA ;

The number of post-offices, telegraph offices, tele-
phones, Radio and T.V. sets for the year 1987-88 is given below,

1) No. of Post Offices	:	323
2) No. of Telegraph Offices	:	69
3) No. of Telephones	:	20,586
4) No. of Radio sets installed by Rural Broadcasting Department,	:	-
5) No. of T.V. sets distributed by the Government,	:	677

The All India Radio Stations with studio and T.V. Relay
Stations are functioning in Nagpur district,

The Cinema statistics in Nagpur district for the year
1987-88 is given below :-

Sr. No.	Tahsil	No. of permanent Talkies/Theatres	No. of movement Talkies/Theatres
01.	Nagpur City	25	-
02.	Nagpur (Rural)	-	-
03.	Hingana	-	-
04.	Kamptee	3	-
05.	Katol	1	-
06.	Narkhed	-	1
07.	Saoner	-	1
08.	Kalmeshwar	-	1
09.	Rantek	1	1
10.	Parshioni	-	1
11.	Mouda	-	1
12.	Umred	2	-
13.	Bhivapur	-	-
14.	Kuhi	-	-
Total		32	6

(Source :- District Statistical Abstract 1987-88)

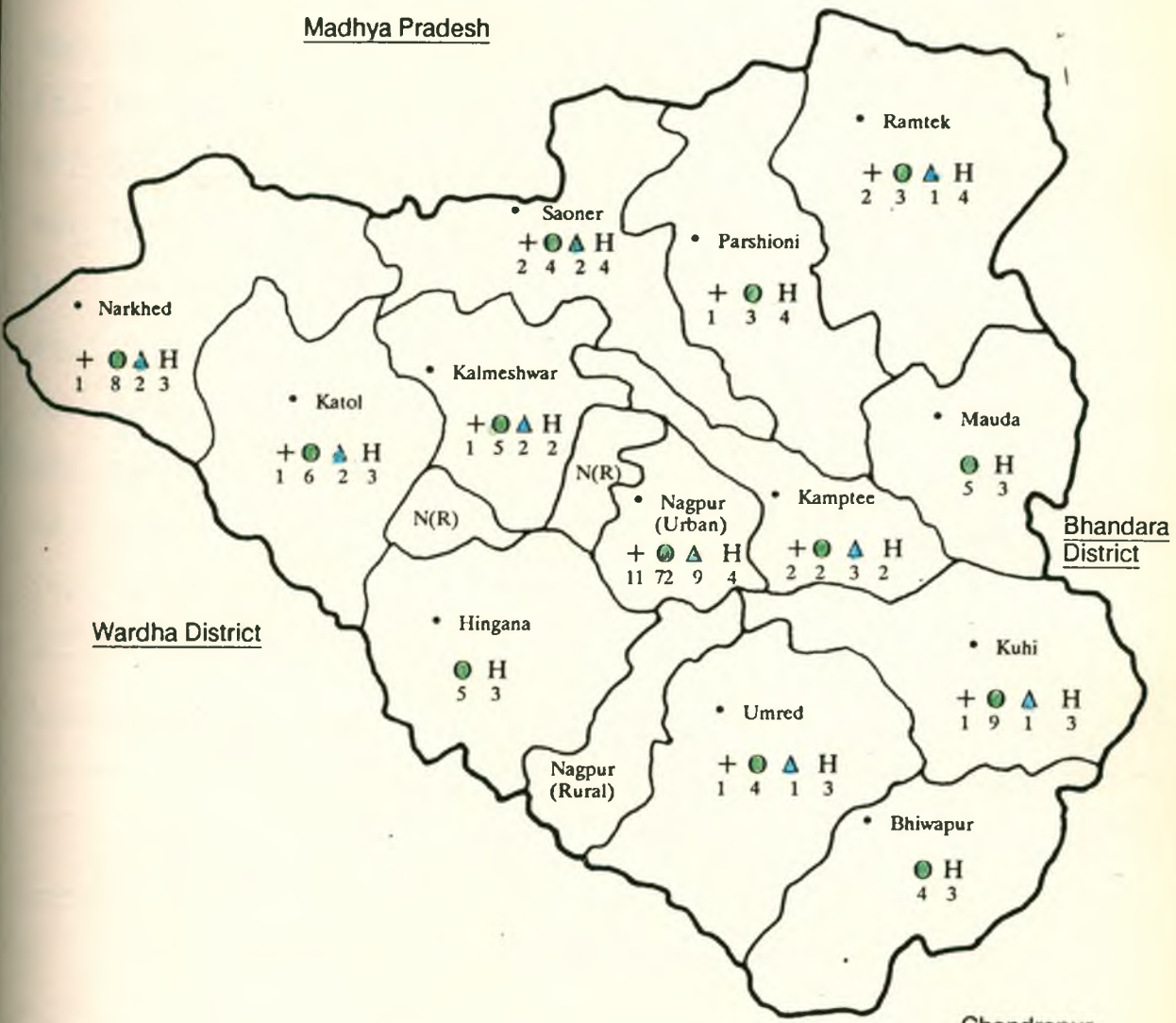
In Nagpur district 8 Marathi, 7 Hindi and 3 English daily news papers are published. There are 30 in Marathi and 9 in Hindi weekly publications. There are 8 Marathi fortnightly publications and monthly publications published in Marathi, Hindi and English.

2.38 MEDICAL FACILITIES :

The tahsil-wise information of existing medical facilities for the year 1987 is given in the following table :-

NAGPUR DISTRICT

PUBLIC HEALTH FACILITIES 87 - 88



- (1) HOSPITAL +
- (2) DISPENSARY ●
- (3) MATERNITY HOME ▲
- (4) PRIMARY HEALTH CENTRE H

TABLE 2,30

Medical facilities in the district

Sr. No.	Tahsil	No. of Hospitals,	No. of Dispensaries	No. of Maternity Homes	No. of Primary Health Centres	No. of Doctors	No. of Nurses
1	2	3	4	5	6	7	8
01.	Nagpur	11	72	9	4	745	1,383
02.	Hingana	-	5	-	3	11	28
03.	Kamptee	2	2	3	2	15	38
04.	Katol	1	6	2	3	16	41
05.	Narkhed	1	8	2	3	15	32
06.	Saoner	2	4	2	4	18	53
07.	Kalmeshwar	1	5	2	2	9	25
08.	Ramtek	2	3	1	4	19	47
09.	Parshion	1	3	-	4	13	33
10.	Mouda	-	5	-	3	11	28
11.	Umred	1	4	1	3	12	32
12.	Bhivapur	-	4	-	3	10	26
13.	Kuhi	1	9	1	3	17	33
Total		23	130	23	41	911	1,799

(Source :- District Statistical Abstract, 1987-88)

2,39 TRADE & COMMERCE ;

The chief articles of export from the district contain cotton bales, gas cylinders, steel pipes, handloom saris and cloth, minerals like coal and manganese and oranges. The district against this imports steel plate, thread, wheat and rice, machinery, cotton yarn, plastic material, salt, sugar, kerosine oil, spices etc.

The number of establishments and employment there in the "Trade and Commerce" sector as per 1980 Economic Census is given below ;

TABLE

Sector	No. of establishments			Employment		
	Rural	Urban	Total	Rural	Urban	Total
1	2	3	4	5	6	7
1. Wholesale - Retail Trade	6220	23679	29899	8871	42766	51637
2. Restaurant	1024	2491	3515	2099	8470	10569
Total	7244	26170	33414	10970	51236	62206
All types of establishments in district,	27897	64716	92613	87400	231227	318627

It is revealed from above table that about 36.07 percent establishments and 19.52 percent employment out of the total establishments and employment in the district are in the "Trade and Commerce" sector.

2.40 BANKING FACILITIES :

Banking in the district is dominated by Co-operative sector which has well spread network of branches in the district, while nationalised and commercial banks are located mostly in urban and semi-urban areas. The following table indicates number of banking centres and banking offices in Nagpur district in 1988.

TABLE

Sr. No.	Tahsil	Schedule Banks	Co-operative banks	Villages served	Population served
1	2	3	4	5	6
1.	Nagpur	15	2	Nagpur city	1219461
2.	Nagpur(Rural)	3	1	10	81477
3.	Kamptee	5	2	13	167737
4.	Hingana	6	2	14	83893
5.	Katol	4	2	15	120772
6.	Narkhed	4	2	19	113621
7.	Saoner	5	2	18	142157
8.	Kalmeshwar	3	2	11	81734
9.	Ramtek	4	2	13	110272
10.	Parshionri	4	1	8	100349
11.	Mouda	5	1	18	84726
12.	Umred	6	2	17	114344
13.	Bhiwapur	3	1	9	68786
14.	Kuhi	4	1	10	99479

(Source :- Bank of India,
Lead Bank Report, 1988.)

2.41 PROGRESS OF EDUCATION :

The Maharashtra Government has recognised the important role that education has to play and it is trying to encompass all educational programmes right from Primary to University levels. The progress of the education in Nagpur district is described below.

As per 1981 census literacy rate of Nagpur district for males was 63.7 and for females 44.6. Compared with Maharashtra literacy rate for males and females is slightly higher in Nagpur district. In Maharashtra, this rate was 58.8 and 34.8 for males

and females respectively. Similarly literacy rate of Scheduled Caste for males is 56.9 and for females it was 34.9. This rate was also more than average rate of Maharashtra. For Scheduled Tribes for males this was 53.9 and for females it was 30.6.

Out of 1658 inhabited villages in the district, 1243 have been provided with one or the other educational amenity. In other words, 7 out of 10 villages have the schooling facility. Ramtek has the largest network of educational institutions compared with other tahsils. Nagpur, the district head-quarter ranks third for this amenity. 351 villages for the schooling amenity available within the distance of less than 5 km. 54 villages have this amenity at a distance of 5 to 10 km, and 10 villages have at a distance more than 10 km. In the various towns of the districts on an average the population and the educational institution's ratios are for higher secondary 10,000 to 1.40; for S.S.C. education 10,000 to 1.37; for middle school 10,000 to 1.46 and for primary school 10,000 to 3.67.

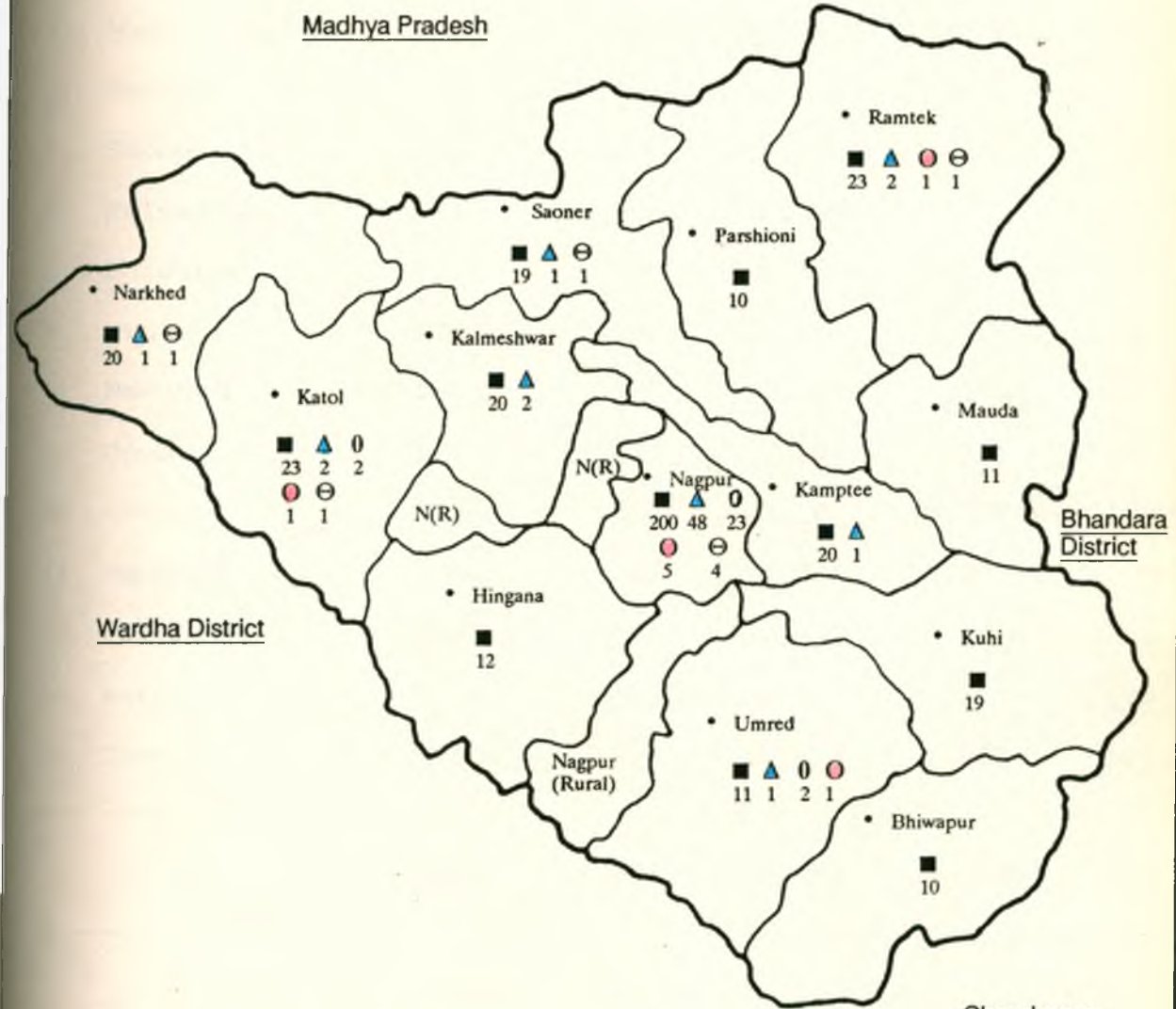
During the year 1987-88 there were 64 Pre-primary schools in Nagpur district. The total number of students in these Pre-primary schools was 5,244, out of these 2,590 were girls(i.e.55%).

2.42 PRIMARY EDUCATION ;

The tahsil-wise number of primary schools and enrolment for boys and girls during the year 1988-89 is shown in the following table -

NAGPUR DISTRICT

EDUCATIONAL INSTITUTIONS 88-89



- 1) HIGH SCHOOL ■
- 2) COLLEGE ▲
- 3) VOCATIONAL COURSES ○
- 4) I.T.I. ●
- 5) TECHNICAL HIGHSCHOOL ⊖

TABLE 2,32

Enrolment of Primary Education 1988-89

Sr. No.	Tahsil	No. of Villages	No. of Schools	Enrolment		No. of villages covered
				Boys	Girls	
1.	2.	3.	4.	5.	6.	7.
1.	Nagpur (Urban)	1	511	96,849	89,591	1
2.	Nagpur (Rural)	144	119	7,907	7,178	109
3.	Ramtek	149	134	9,465	8,591	117
4.	Saoner	125	124	11,951	10,856	99
5.	Kalmeshwar	91	80	6,392	5,858	73
6.	Bhiwapur	112	100	6,502	5,851	92
7.	Hingana	123	99	7,159	6,339	93
8.	Narkhed	132	116	9,667	8,836	100
9.	Mouda	121	121	7,702	7,365	114
10.	Kuhi	155	135	8,702	8,794	130
11.	Kamptee	74	122	12,325	12,002	71
12.	Parshion	109	97	8,842	7,570	86
13.	Katol	169	148	10,940	8,755	129
14.	Umred	153	120	11,072	9,863	102
Total		1,658	2,026	215,475	196,449	1,316

(Source :- Education office, Z. P. Nagpur)

2.43 SECONDARY EDUCATION :

The tahsil-wise number of secondary school and enrolment for boys and girls for the year 1988-89 is shown in the following table :-

TABLE 2,33

Enrolment in Secondary Education - 1988-89

Sr. No.	Tahsil	Popu- lation (in '000')	No. of villages	No. of Sec- ondary schools	Enrolment		
					Boys	Girls	Total
1.	2.	3.	4.	5.	6.	7.	8.
1.	Nagpur (Urban)	1,219	1	185	55,779	53,365	109,144
2.	Nagpur (Rural)	83	144	15	1,645	1,317	2,962
3.	Kamptee	168	74	20	6,773	6,652	13,425
4.	Hingana	84	123	12	2,836	2,317	5,153
5.	Ramtek	111	149	23	4,129	2,790	6,919
6.	Parshioni	100	109	10	2,409	1,737	4,146
7.	Mouda	82	121	11	2,591	2,076	4,667
8.	Saoner	141	125	19	3,494	2,520	6,014
9.	Katol	122	169	23	2,954	2,624	5,578
10.	Narkhed	115	132	20	3,286	3,078	6,464
11.	Umred	115	153	11	2,107	3,749	5,856
12.	Bhivapur	69	112	10	1,429	1,906	3,335
13.	Kuhi	100	155	19	2,068	2,383	4,451
14.	Kalmeshwar	80	91	20	3,228	3,474	6,702
Total		2,589	1,658	398	94,728	89,988	184,716

(Source :- Education office, Z. P. Nagpur)

In addition to above, there are 5 Govt. Technical High Schools in the district viz, Govt. Tech. High School, Nagpur, Government Technical High School Centres at Bhansali Takali, Katol, Narkhed and Deolapar.

One private (aided) Technical High School - Anjuman High School, Nagpur and one private (non-aided) Technical High School Maharashtra Adhyayan Mandir, Nagpur are the other technical high schools in the district.

2.44 HIGHER SECONDARY SCHOOLS ;

The tahsil-wise number of Higher Secondary Schools and enrolment under Arts, Science, Commerce and Vocational faculties for the year 1988-89 is shown in the following table :-

TABLE 2.34

Enrolment in Higher Secondary Schools in 1988-89

Sr. No.	Tahsil	No. of schools	E N R O L M E N T			
			Arts	Science	Commerce	Vocational subjects
1.	2.	3.	4.	5.	6.	7.
1.	Nagpur (urban)	68	1,273	3,911	3,688	935
2.	Nagpur (Rural)	3	144	-	190	-
3.	Ramtek	1	-	139	-	-
4.	Narkhed	7	870	140	539	-
5.	Katol	3	214	219	181	60
6.	Hingana	1	-	-	135	-
7.	Mouda	2	92	108	151	-
8.	Parshioni	3	181	78	67	-
9.	Bhivapur	1	174	-	-	-
10.	Kuhi	3	166	119	271	-
11.	Umred	5	490	457	456	75
12.	kamptee	3	39	224	253	-
13.	Kalmeshwar	3	383	194	198	-
14.	Saoner	5	443	401	106	-
Total		108	4,469	5,990	6,235	1,070

(Source :- Education Office, Z.P. Nagpur)

The above information is pertaining only for Higher Secondary Schools. As regards Junior Colleges the information for the year 1988-89 is given in the following table :-

TABLE 2.35

Enrolment in Junior Colleges - 1988-89

Sr. No.	Tahsil	No. of Junior Colleges	E N R O L M E N T			
			Arts	Science	Commerce	Vocational
1.	2.	3.	4.	5.	6.	7.
1.	Nagpur (Urban)	26	5,243	5,076	10,191	505
2.	Katol	1	393	336	373	75
3.	Saoner	1	330	-	292	-
4.	Narkhed	2	390	-	269	-
5.	Kamptee	1	502	417	629	-
6.	Ramtek	1	240	-	160	-
7.	Umred	1	148	-	141	-
8.	Kalmeshwar	1	89	-	91	-
9.	Parshioni	1	77	-	78	-
Total		35	7,412	5,829	3,224	580

(Source :- Education Office, Z.P. Nagpur)

It is revealed from the above that there was no facility of higher secondary education in science stream available in Nagpur (Rural), Hingana and Bhivapur tahsils in the district. Similarly, the facility of vocational education was not available to students in Nagpur (Rural), Ramtek, Narkhed, Hingana, Mouda, Parshioni, Bhivapur, Kuhi, Kamptee, Kalmeshwar and Saoner.

It is also seen from above two tables that total enrolment in Junior Colleges is 33,153 in the district and only 1,650 students are provided facility of vocational education. Hence enrolment in vocational courses is about 5 percent of total enrolment in Junior Colleges.

2.45 COLLEGES ;

As per Annual Report 1986-87 of Nagpur University, there were total 58 colleges in Nagpur district, Out of these, there were 48 colleges in Nagpur tahsil only.

Faculty-wise colleges in Nagpur district are as follows -

Faculty	No. of colleges
1) Medical	2
2) Dental Science	1
3) Medicine (Pharmacy)	1
4) Ayurved	2
5) Homeopathy	1
6) Engineering	5
7) Fire Brigade Engg.	1
8) Chitrakala (Fine Arts)	1
9) Education	2
10) Physical Education	2
11) Social Work	3
12) Other (Arts/Social Science/ Commerce/Science/ Home Science/Law,)	37
Total	58

Number of colleges having the following faculties,

a) Arts & Social Science,	26
b) Commerce	29
c) Science	14
d) Home Science	2
e) Law	1

Faculty-wise enrolment in first year of these colleges was as under -

1) Commerce	5,207
2) Science	2,150
3) Arts	3,126

Total	<u>10,483</u>
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Tahsil wise position of colleges in Nagpur district during 1986-87 is given below :-

Sr. No.	Name of college	Tahsil	Faculty	Year of starting
1.	2.	3.	4.	5.
1.	Hislop College, Nagpur	Nagpur	Arts/Sci./Com.	1884
2.	Instt. of Arts & Soc.Sci.,Ngp.	"	Arts/Soc. Sci.	1885
3.	Instt. of Science, Nagpur	"	Science	1909
4.	Shri. Binzani City College,Ngp.	"	Arts/Com./ Social Sci.	1930
5.	L.A.D. College for Women of Arts, Com., & Sci. and Smt.-Ratnadevi Purohit College of Home Science and Home Science Technology, Nagpur.	"	Arts/Sci./Com/ Social Sci./ Home Sci./Home- Science (Tech.)	1932
6.	Dhanwate National College,Ngp.	"	Arts/Com./ Social Sci.	1935
7.	G.S.College of Com.& Eco.,Ngp.	"	Commerce	1945
8.	Govt. Medical College, Nagpur	"	Medical	1947
9.	St.Francis De-Sales College,Ngp."	"	Arts/Science/ Social Science	1956
10.	S.M.Mohta Sci,College, Nagpur	"	Science	1958
11.	Visvesvaraya Regional College- of Engg., Nagpur.	"	Engineering	1958
12.	C.P.&Berar College, Nagpur	"	Arts/Com./ Social Science	1960
13.	Dharampeth Arts,Commerce and M.P.Deo Memorial Sci,College,Ngp.	"	Arts/Com/Sci./ Soc,Sci./Home- Science.	1960

1.	2.	3.	4.	5.
14.	Matru Sewa Sangh Inett, of Social Work, Nagpur.	"	Social Work	1961
15.	Smt. Binzani College, Nagpur	"	Arts/Soc,Sci,	1961
16.	Dr,Ambedkar College, Nagpur	"	Arts/Com/Sci,/ Law/Social Sci,	1964
17.	Govt, Ayurvedic College, Nagpur	"	Ayurved	1965
18.	Tirpude College of Social Work, Nagpur	"	Social Work	1966
19.	Shri, Shivaji Sci. College, Ngp, "	"	Science	1967
20.	Indira Gandhi Medical College, Nagpur,	"	Medical	1967
21.	Govt, Dental College, Nagpur	"	Dental Sci,	1968
22.	National Inett, of Social-Work, Nagpur,	"	Social Work	1968
23.	P,W,S, College of Arts & Com, Nagpur,	"	Arts/Com,/ Social Science	1968
24.	Govt,Chitrakala Mahavidyalaya, Nagpur,	"	Chitrakala (Fine Arts)	1968
25.	P,M,Vasant Com., J,M,Thakar - Arts & J,J,Patel Science College, Nagpur,	"	Arts/Com,/Sci/ Social Science	1969
26.	Santaji College, Nagpur,	"	Arts/Com/Sci, Social Science	1971
27.	Sindhu College, Nagpur,	"	Com,/Science	1971
28.	Mahila Mahavidyalaya, Nagpur	"	Arts/Soc, Sci,	1971
29.	Nagpur Sharirik Shikshan - Mahavidyalaya, Nagpur,	"	Physical Education	1971
30.	Shri Ayurved Mahavidyalaya,Ngp,	"	Ayurved	1972
31.	National Fire Service College, Nagpur	"	Fire Brigade Engineering	1978
32.	Dayanand Anya Kanya College, Nagpur,	"	Arts/Soc,Sci,	1983
33.	Kamala Nehru College, Nagpur,	"	Arts/Com,/ Social Science	1983
34.	Ishwar Deshmukh Sharirik - Shikshan Mahavidyalaya, Nagpur	"	Physical Education	1960
35.	Womenn\'s College of Commerce,Ngp,"	"	Commerce	1984

Contd.,,

1.	2.	3.	4.	5.
36.	Saibaba Arts & Commerce College," Nagpur.		Arts/Com./ Social Science	1984
37.	Dr. Punjabrao Deshmukh Commerce " Night College, Nagpur.		Commerce	1984
38.	Arts & Commerce College, Ganeshpeth, Nagpur.	"	Arts/Commerce/ Social Science	1984
39.	Annasaheb Gundewar Commerce - " College Katol Road, Nagpur.	"	Commerce	1984
40.	Ramchandrarao Mokhare Commerce- " College, Nagpur	"	Commerce	1984
41.	Post Graduate Instt. of Develop-" mental Studies, Nagpur		Commerce	1984
42.	Indian Instt. of Management - " Development, Nagpur	"	Commerce	1984
43.	Nagar Yuvak Society's Yeshwantrao " Chavan Engg. College, Nagpur	"	Engineering	1984
44.	Ramdeobaba Kamla Nehru Engg. " College, Nagpur	"	Engineering	1984
45.	Karmaveer Dadasaheb Kannamwar- " Engg. College, Nagpur.	"	Engineering	1984
46.	Nagpur College of Pharmacy, Ngp." "		Medicine	1985
47.	Nagpur College of Homoeopathy & " Biochemistry, Nagpur.	"	Homoeopathy	1985
48.	Arun Joshi Education College, Ngp." "		Education	1986
49.	Nabina Mahavidyalaya, Katol	Katol	Arts/Com/Sci./ Social Science	1961
50.	Shikshan Mahavidyalaya, Katol	"	Education	1984
51.	Seth Kesarimal Porwal Arts, & Commerce College, Kamptee	Kamptee	Arts/Com/Sci./ Social Science	1965
52.	Arts & Commerce College	Saoner	Arts/Com/Soc.- Science	1965
53.	Nutan Adarsh Arts, Commerce & Smt. Maniben Harilal - Begad Science College, Umred,	Umred	Arts/Com./Sci./ Social Science	1968
54.	Shri Nanendra Tidke Arts- & Commerce College, Ramtek	Ramtek	Arts/Commerce/ Social Science	1970
55.	Kavi Kulguru Instt. of- Technology & Science, Ramtek	"	Engineering	1985

Contd.,,

1.	2.	3.	4.	5.
56.	Shri, Pandharinath Arts- Commerce College, Narkhed,	Narkhed	Arts/Commerce/ Social Science	1971
57.	Indira Gandhi Arts & - Com. College, Kalmeshwar.	Kalmeshwar	Arts/Commerce/ Social Science	1984
58.	Arvind Babu Deshmukh Arts- Commerce College, Bharsingi.	"	Arts/Commerce/ Social Science.	1986

(Source :- Nagpur University Annual Report 1986-87)

2.46 IMPORTANT POINTS ON EDUCATION :

There are two private B.Ed. colleges, one at Nagpur and the other at Katol. Also there is one Govt. D.Ed. college and 8 private D.Ed. colleges in the district. There is Agricultural Research Institute, Agricultural School, Veterinary Research Institute, National Environmental Engineering & Research Institute, Central Fuel Research Institute, Fruit Preservation Training Centre of Government of India, Minerals and Metal Corporation, Public Health Institute, Medical Colleges, Dental College, Ayurved College, Homoeopathy College, Engineering Colleges, Polytechnics, Industrial Training Institutes, Technical Highschools and institutes running various certificate courses approved by the Department of Vocational Education & Training, Maharashtra State, Bombay.

In Nagpur district, the programme of Adult education is taken and there were 940 Adult education centres in the district during 1987-88.

The National Fire Service College was established by the Ministry of Home Affairs by the Government of India, with the aim of imparting most advanced training in the science of Fire Technology viz. Fire Engineering to the Fire Officers. The

degree of Fire Engineering is awarded by the Nagpur University which is recognised by U.P.S.C. for Indian Engineering Service examination. The National Fire Service College is the only institute in Maharashtra State. The training facilities available at the college are a five storeyed steel framed drill tower, cemented drill ground, smoke chamber, automatic sprinkler installations, fully equipped physical and chemical laboratory, cemented fire pit, workshop, control room, cut sections of I.C. engine and pumps etc.

2.47 OUT TURN OF Xth AND XIIth CLASSES:

The information regarding the out-turn of Xth and XIIth classes is given below:-

Year	Number Appeared		Number Passed		Percentage of	
	X	XII	X	XII	X	XII
1.	2.	3.	4.	5.	6.	7.
1984	167,022	75,819	75,336	25,901	44.84	34.23
1985	166,758	83,496	69,378	27,892	40.00	33.41
1986	191,136	102,946	58,129	35,726	30.40	34.70
1987	241,965	111,872	89,617	42,531	37.46	38.40
1988	270,831	98,280	87,910	36,248	32.45	36.88

(Source :- S.S.C. Board, Nagpur)

2.48 TRAVEL AND TOURISM :

In addition to Nagpur city itself which is famous for oranges, Sitabuldi fort, Ambazari lake etc, other places of tourists interest include Adasa village in Saoner tahsil for Ganpati temple; Khapa for rich natural surroundings and temples; Mansar village located north of Kamptee for pilgrim place and beautiful orange and deep orange spessartic crystals found in the pit known as the "Kamptee Lady" ; Paradsinga village in Katol tahsil for oranges

and other fruit gardens and Ramtek for its location round the foot of a detached hill with its fractured stones appearing almost blood red; for its betel leaf and for number of temples on the hill.

The hill is attached with the belief that legendary Ram took up his residence here and hence invested with special sanctity.

Some other places of travel and tourism in Nagpur district, its location from Nagpur and importance of the place is given in the following table -

Sr. No.	Place	Location from Nagpur	Importance of the Place
1	2	3	4
1.	Nagpur City	-	Sitabuldi fort, Ambazari lake, Maharajbagh, museum
2.	Adasa Village (Saoner Tahsil)	27 Km.	Ganpati Mandir (Pilgrim Place)
3.	Dhapewada (Kalmeshwar Tahsil)	20 Km.	Vithoba Temple (Pilgrim Place)
4.	Ambhora	65 Km.	Vainganga, Chaitanyashwar Mandir, Harihar Swami Mandir
5.	Ramtek	52 Km.	Ram Mandir, Kalidas Smarak, Ras Sagar, Ambala Lake etc.
6.	Khindsi	6 Km. from Ramtek.	Khindsi lake (Boating purpose)
7.	Pench Project	65 Km.	Dam
8.	Totla Doh	85 Km.	Hydro-Electric Project
9.	Koradi	12 Km.	Power Station
10.	Khaparkheda	22 Km.	Power Station

INDUSTRIAL GROWTH AND EMPLOYMENT A RETROSPECT

The policy of the Government of Maharashtra is aimed at achieving balanced industrial growth among the district regions. The efforts of the Government are concentrated to achieve growth and dispersal of industries in the developing areas of the districts.

With a view to accelerate the growth of industries, the Government has established various Boards such as Maharashtra State Financial Corporation Maharashtra Industrial Development Corporation, District - Industries Centres, etc.

The resources available can be divided broadly in following categories -

- 1) Agricultural resources,
- 2) Mineral resources,
- 3) Forest resources,
- 4) Live Stock resources,
- 5) Fisheries resources,
- 6) Horticultural resources,
- 7) Sericultural resources,
- 8) Human resources.

The systematic and planned utilisation of these resources will speed up the industrialisation and will generate more employment, self-employment in the area.

The development of industries in the district plays an important role in the economic development of the district.

3.1 DIRECTORATE OF INDUSTRIES :

The District Industries Centres was established in Nagpur on 1st May, 1978. The District Industries Centre works as a district organisation of Directorate of Industries and carry out all functions at district level. Due to formation of District Industries Centre, large and small industries have been established

in the district. The Government of India has given more importance to small scale and cottage industries mainly for creation of employment potential, minimum capital requirement and balanced development of the district. Hence the District Industries Centre is regarded as focal point of industrial development activity. As per Government's directives the District Industries Centre prepares Action Plan every year and five year plan of the district. The objective of preparation of Annual Plan is to spread small scale and cottage industries to rural areas having result oriented and time-bound programmes/targets. The emphasis has been given on maximum utilisation of available resources to provide employment/self-employment to the rural youths.

The District Industries Centre, Nagpur has prepared Action Plan 1988-90 and Annual Action Plan 1988-89 for the district. The Action Plan is summarised below in the table :-

Table - 3.1

Proposed Work Programme of D.I.C. - 1988-90

Sr. No.	Type of Industry	Year	No. of units to be set up			Tahsil	Employment likely to be generated
			Artisan	SSI	Total		
1.	2.	3.	4.	5.	6.	7.	8.
01	Agro-based Industries	88-89	-	82	82	Nagpur, Narkhed, Ramtek, Hingana, Katol, Kamptee, Kalmeshwar, Kuhi, Umred, Mouda, Saoner, Parshioni, Bhivapur.	439
		89-90	-	81	81		433
02	Forest-based Industries	88-89	-	68	68	- do -	439
		89-90	-	80	80		535
03	Food based Industries	88-89	-	11	11	Katol, Ramtek, Kamptee, Nagpur, Kalmeshwar, Umred.	63
		89-90	-	6	6		48

Contd...

Contd.,,

1.	2.	3.	4.	5.	6.	7.	8.
04	Textile based Industries	88-89	-	5	5	Nagpur, Kamptee, Umred, Katol,	67
		89-90	-	6	6	Saoner, Ramtek.	37
05	Chemical based Industries.	88-89	-	38	38	All tahsils	294
		89-90	-	21	21		202
06	Engineering and Allied.	88-89	-	41	41	Nagpur, Kamptee, Katol, Kalmeshwar,	245
		89-90	-	22	22	Saoner, Hingana, Mouda, Ramtek, Umred, Narkhed, Parshioni.	113
07	Building material based Industries.	88-89	-	20	20	Umred, Bhivapur, Kalmeshwar, Katol,	403
		89-90	-	24	24	Kamptee, Kuhi, Saoner, Prashioni, Ramtek, Hingana.	356
08	Animal Husbandary based Industries	88-89	6	8	14	Nagpur, Kamptee, Hingana.	164
		89-90	3	4	7		108
09	Ancillary Units	88-89	-	10	10	Nagpur, Kalmeshwar	173
		89-90	-	9	9		53
10	Other Industries	88-89	-	17	17	Nagpur	179
		89-90	-	6	6		76
TOTAL		88-89	6	300	306	-	2,466
		89-90	3	259	262		1,961

(Source :- Action Plan of D.I.C. Nagpur, 1988-90)

Package Scheme :-

The order to achieve dispersal of industries outside Bombay-Pune belt and to attract them to the under-developed and developing areas of the State, the State Government has been giving a package of incentives to the new units/expansion set up in developing regions since 1964. The Government revised the scheme time to time. Recently under Industries, Energy and Labour Department Resolution No. IDL-1088/(6603)/IND-8, dated 30-9-88, the Government brought into force a new scheme i.e. Package Scheme of Incentives -1988

from 1-10-88. According to the scheme, the areas of Maharashtra State has been classified under the groups as indicated below :-

- Group "A" - comprising the developed areas of the State where no incentives available.
 - Group "B" - comprising the areas where some development has already taken place.
 - Group "C" - comprising the areas which are less developed those shown under Group "B".
 - Group "D" - comprising the least developed areas of State not covered under Group "A", "B", or "C".
- No Industry district - as notified by the Government of India.

For the detailed classification of the areas, tahsils are taken as unit.

The classification of tahsils according to Government Resolution IELD, dated 30/9/88 and as amended under IELD Resolution dated 31/1/1989, is given below :-

District	Group "A"	Group "B"	Group "C"	Group "D"
Nagpur	-	-	-	Entire district.

The industries set up in this area will be eligible to get incentives embodied in Government Resolution dated 30/9/1988.

The Government of Maharashtra proposed to develop Kuhi, Umred, Relu, Butibori, Kondhali, Katol, Mowad, Narkhed, Khapa, Mohapa, Hingana, Ramtek, and Parshioni as industrial growth centres.

In addition to above mentioned units are registered and likely to be started soon -

Sr. No.	Type of Industry	Location	Item of manufacture.	Investment proposed (Rs. in-crores)	Expected Employment Potential (No.)
1.	2.	3.	4.	5.	6.
1.	M/s The Vidarbha S.S.K. Ltd.	Mohagaon	Sugar	1950.00	993
2.	M/s Sold Star Tyres Ltd.	Ramtek	Auto tyres Auto tubes Flaps.	17825.00	2425
3.	Ram Ganesh Gadkari S.S.K. Ltd.	Saoner	Sugar	2780.00	993
4.	Nagpur Pulvarizers & Minerals Pvt. Ltd.	Kalme-shwar.	Advanced Technical Ceramics viz. high aliminium powders compounds, silicon Nitrode Powders.	-	-
5.	Shri Basantlal Shaw.	Butibori	Cement bonded Particle board.	-	-
6.	M/s Nagpur Alloy Casting Ltd.	Butibori	M.S. Steel casting	1300.00	1200
7.	M/s Nagpur Alloy Casting Ltd.	Butibori, Hingana.	Sponge Iron only	1830.00	250
8.	M/s Nagpur Alloy Casting Ltd.	Butibori, Hingana.	Alloy & Carbon Steel forgings.	1180.00	450
9.	M/s Vasant Rao Dada Sahakari Santra Prakriya Karkhana Ltd.	Narkhed	Contrate of citrons and tropical fruits.	433.00	81
10.	Jaywant Chemical Ltd.	Nagpur	Iron Casting viz. Cast Iron Casting.	493.00	595

(Source :- Directorate of Industries Office, Nagpur)

3.2 MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION:

Maharashtra Industrial Development Corporation popularly known as M.I.D.C. is a State Government undertaking constituted under a special statute. It was established in 1962 with a view to achieve decentralisation and to accelerate industrial development of district. To achieve balanced industrial development, emphasis has been given to provide suitable locations in all district places and taluka places, basic infrastructure like plots, roads, water supply, drainage and common facility centres for entrepreneurs for setting up the industries in those locations.

The Maharashtra Industrial Development Corporation is State-Level corporation having its regional office at Nagpur. The Corporation is mainly entrusted with the job of providing infra-structural environment for the small-scale as well as medium scale and large scale industries in the district. The corporation has developed industrial area on Hingna Road, about 10 Kms. away from Nagpur and at Kalmeshwar about 16 Kms. from Nagpur.

TABLE 3.2

M.I.D.C. areas in Nagpur district on March, 89

Sr. No.	Details	M.I.D.C. Nagpur District	
		Nagpur 3.	Kalmeshwar 4.
1.	Area (in hect.)	749.28	116.76
2.	Plots laid down	1108	135
3.	Plots allotted	1014	133
4.	Sheds constructed	108	10
5.	Units functioning	458	45
6.	Employment	13000	1100
7.	Industrial settled	561	57

(Source:- Action Plan of D.I.C. 1988-90)

Programme of M.I.D.C. in future-

It is also proposed to set up M.I.D.C. area at Butibori, Borkhedi, Kamptee, Umred, Narkhed and Ramtek.

3.3 CO-OPERATIVE INDUSTRIAL ESTATE:

The details of co-operative industrial estates upto March, 1988 is given below.

Sr. No.	Details		Nagpur	Katol
1.	2.		3.	4.
1.	Area (in hect)	9.0	3.10
2.	Plots laid down	95	---
3.	Plots allotted	20	---
4.	Sheds constructed	52	19
5.	Units functioning	37	14
6.	Employment	300	---

(Source:- D.I.C. action plan 1988-90)

3.4 MINI INDUSTRIAL ESTATES:

There is no mini industrial estate in the district at present but it may be developed in Ramtek, Parshioni and Umred in future.

3.5 REGIONAL DEVELOPMENT CORPORATION :

Vidarbha Development Corporation Ltd. has been incorporated on 3 December, 1970 as a Government Organisation under administrative control, of Industries and Labour Department for promoting industrial growth in Vidarbha region comprising of Nagpur, Chandrapur, Wardha, Bhandra, Gadchiroli, Amravati, Yeotmal, Buldhana and Akola districts. The role of corporation is to act as a catalytic agent for development of area.

The corporation has placed great emphasis on industrialisation and building up of entrepreneurship in Vidarbha. In order to accelerate the pace of industrialisation, it has performed the dual role of promotional agency as well as entrepreneur, thereby directly participating in the process of industrialisation.

ACTIVITIES OF VIDARBHA DEVELOPMENT CORPORATION:

(A) Employment Promotion Programme for the educated unemployed.

Under this programme, Corporation on behalf of the Government of Maharashtra offers seed money assistance to the extent of 10-22.5% of project cost, to eligible entrepreneur to start a small scale industry or a service industry. Entrepreneurs who have passed at least S.S.C. or I.T.I. and are in the age group of 18 to 40 years are eligible for this assistance. The assistance is by way of a long term loan bearing nominal interest rate of 4% payable after a long gestation. The scheme from 1-11-79 has been liberalised in respect to Artisans, village or cottage industry, wherein no margin is insisted on by any financing institution provided the total cost of the project is less than Rs. 1.00 lakh. Government also provides interest subsidy at the rate of 1% to 1.5% on the total loan advanced by the financing institution.

TABLE 3.4

Statement showing the seed money assistance disbursed by the Development Corporation of Vidarbha Ltd. for Nagpur district.

Year	No. of units	Amount. (Rs. in Lakhs)
1972-73	28	1.19
1973-74	69	1.77
1974-75	184	6.69
1975-76	389	14.42
1976-77	422	15.97
1977-78	487	19.73

Contd...

1.	2.	3.
1978-79	511	28.85
1979-80	337	26.23
1980-81	435	40.62
1981-82	321	44.02
1982-83	351	42.82
1983-84	352	46.00
1984-85	340	31.40
1985-86	434	42.00
1986-87	467	50.00
1987-88	389	49.20
1988-89	1105	104.76

(Source :- Development Corporation of Vidarbha Limited)

(B) SUBSIDY AND STIPENDARY SCHEME:

1) Interest subsidy to Engineering Enterprises :-

To encourage technocrats for self-employment an amount of Rs. 0.31 lakh interest subsidy to 1 Engineer Entrepreneurs has been disbursed during the year 1988-89 bringing the total disbursement of Rs. 7.98 lakhs to 34 candidates since inception of the scheme.

(2) Stipendary Scheme :-

For incidental survival of small Entrepreneur in the gestation period, corporation disburses stipend to the proprietors of Small Scale Units, where the cost of the project is less than Rs. 1.00 lakhs at the rate of Rs. 100/- per month for initial period of 6 months. Under this scheme an amount of Rs. 0.10 lakh has been disbursed to 18 proprietors in the year 1988-89 bringing the total disbursement to Rs. 1.22 lakhs to

214 proprietors of the small scale units since inception.

- (3) Special Financial Assistance to the Artisans from
Scheduled Castes and Neo-Bhudhists under Special
Component Programme for urban bank areas.

Corporation has been assigned with the task of Seed Money Assistance to Scheduled Castes and Neo-Buddhists for income generating self-employment schemes for Artisan engaged in the manufacture of Bamboo baskets, mats, sisal ropes and other economic and productive activities. The activity was serving the village, cottage and tiny agricultural and allied sector. The incumbent being a person living below poverty line and belonging to Scheduled Castes and Neo-Buddhists is entitled for subsidy of 50% of the cost of scheme or Rs. 2500/- whichever is lower. Corporation has disbursed subsidy an amount of Rs.10.68 lakhs to 5.3 entrepreneurs as subsidy till 1986. The scheme there after being implemented by Mahatma Phule Backward Class Development Corporation.

- (C) COMMERCIAL PROJECT OF THE CORPORATION THROUGH ITS OWN
UNITS FOR NAGPUR DISTRICT:

- (1) SHIVRAJ FINE ART LITHO WORKS, NAGPUR:

M/s Shivraj Fine Art Litho Works, owns a factory for Lithography and Printing and provides employment to about 450 persons. The Unit is in operation and it has achieved a turnover of Rs.559 lakhs from the date of takeover under I.D.R. Act in the year 1980-81 till March 1988. In the year 1987-88 it has achieved turnover of Rs. 106 lakhs.

- (2) GONDWANA PAINTS AND MINERALS LIMITED, KAMPTEE,
DISTRICT-NAGPUR:

M/s Gondwana Paints & Minerals Limited, is an old ~~close~~ unit, wherein the Government of Maharashtra was holding 66%

shares. This silk unit was taken up for revival initially on a proposed lease of ten years by the Government. Later on, the shares held by the Government were transferred in favour of M/s. Development Corporation of Vidarbha Limited, from 28th August, 1978. After carrying out repairs, renovations and additions to the plant, machinery and building it has been brought to the state of production in the year 1979-80.

At present the Company is running in loss and made a turnover of Rs. 3.87 lakhs in the year 1987-88 and provide employment to about 60 persons.

(d) PACKAGE SCHEME :

Government entrusted Package Scheme of incentives 1976, 1979 and 1983 for Small Scale Industries for implementation on agency basis to the Corporation. The disbursement from inception of the Scheme at a glance is as under for Nagpur district.

TABLE 3.5 (A)

PACKAGE SCHEME OF INCENTIVES

(Rs. in lakhs)

Descriptions	Inceptions upto 31-3-1989
(A) Special Capital Incentives 1976 and 1979	
(i) Amount disbursed	286.32
(ii) No. of units	612
1983 Scheme	
(i) Amount disbursed	334.32
(ii) No. of units	303
(B) SALES TAX INCENTIVES	
1976 and 1979	
(i) Amount disbursed	23.66
(ii) No. of units	46
(C) M.I.D.C. INCENTIVES	
1976 and 1979	
(i) Amount disbursed	53.06
(ii) No. of units	195

Contd...

Contd...

1.	2.
(D) OCTROI INCENTIVES	
1979 and 1983	
(i) Amount disbursed	31.85
(ii) No. of units	134

(Source :- Development Corporation of Vidarbh Limited, Nagpur)

TABLE 3.5 (B)

Units assisted by the Development Corporation of Vidarbh, Limited, Nagpur in Nagpur district during 1987-88 and 1988-89.

Sr. No.	Descriptions	No. of units assisted	
		1987-88	1988-89
1.	2.	3.	4.
1.	Chemical Industries	11	9
2.	Engineering Industries	16	15
3.	Pharmacy Industries	2	-
4.	Electrical Industries	3	1
5.	Ceramic Industries	-	1
6.	Agro Industries	11	16
7.	Dairy Industries	3	3
8.	Transport	117	172
9.	Agro Sericulture Centre	1	-
10.	Small Business	176	251
11.	Other Industries (Servicing Centre, Plastic unit, wooden furniture, electronic components, Data Processing, Off- set Printing, Xerox, paper printing etc.)	35	33
Total		375	501

(Source:- Development Corporation of Vidarbh Limited, Nagpur)

3.6 MAHARASHTRA SMALL SCALE INDUSTRIES DEVELOPMENT CORPORATION

(M.S.S.I.D.C.):

The Maharashtra Small Scale Industries Development Corporation (MSSIDC) was established in 1962 to aid, assist and finance small industries and to provide them with capital, credit means, resources and managerial assistance to develop and improve their methods of manufacture and technique. MSSIDC has its Regional office at Nagpur. Corporation extends marketing assistance to the small scale industries units and supply controlled raw materials on recommendations of the Directorate of Industries.

Upto the year 1988-89 total 302 units were registered with the Corporation in Nagpur District. The type of units were RCC pipes, wooden furniture, steel furniture, fabrication, polythene bags, paints, chemical, electrical items, medicine and hospital equipment etc. The Corporation has rendered assistance to 206 Small Scale Industries and provided market to the products valued to Rs. 383.44 lakhs during the year 1988-89.

Positions of marketing assistance during 1988-89 in Nagpur district is as below :-

Sr. No.	Item	No. of units served	Amount (Rs. in lakhs)
1.	2.	3.	4.
1.	RCC pipes (RCT)	5	75.77
2.	Metal Fabric and Engineering	38	84.42
3.	Medicine and hospital equipment	5	2.48
4.	Chemical and paints	3	22.68
5.	Electrical items	5	15.72
6.	Steel furniture	22	11.49
7.	Wooden furniture	20	24.31
8.	Printing and Stationery	2	0.64
9.	Miscellaneous Items	44	17.85

Contd...

Contd...

1.	2.	3.	4.
10.	Manglari Tiles	3	3.71
11.	PSC Pole	1	28.89
12.	CI Products	2	9.10
13.	Material of Rubber plastic only	3	2.66
14.	PVC Pipes	1	0.12
15.	Polythene bags	40	27.61
16.	AC Pipes	2	12.91
17.	Sluice volve	1	10.11
18.	Ashram shed	9	32.97
Total		206	383.44

(Source :- MSSIDC, Nagpur)

3.7 KHADI AND VILLAGE INDUSTRIES BOARD:

In 1946, the then Government had established Gramodyog Committee for development of Khadi and Village industries. Then after formation of maharashtra State, it has been converted into Khadi and Village Industries Board in 1962. The purpose of establishing this Board is for encouragement, organisation, development and regulation of Khadi and Village industries in Maharashtra State. Primarily it acts as service institute. Its main purpose is to assist and help the artisans especially in rural areas by providing them finance, technical knowledge and training etc. The main thrust is on organising such programmes through co-operative societies. Twenty five industries have been included in the jurisdiction of Khadi and Village Industries Board.

The following type of institutions, societies and person can get financial assisatance from Khadi and Village Industries Board.

1. Institutions registered as per 1960 Act.
2. Co-operative Societies registered as per 1960 Co-operative Act.
3. Artisans.
4. Persons/Industrialists.

The financial assistance disbursed by the Khadi and Village Industries Board in Nagpur district during the last three years is given in the following table.

TABLE 3.7 (A)

Year	Units	Loan	Assistance	Total
1.	2.	3.	4.	5.
1986-87	162	19.46	0.41	19.87
1987-88	94	7.50	0.27	7.77
1988-89	68	7.17	0.23	7.40

There are about 20 village industries under the jurisdiction of Khadi and Village Industries Board in the district. The important village industries are carpentry, Blacksmithy, pulses, leather, Khandsari, cane and bamboo, industries.

The information regarding production, sale and employment available in total units assisted by the Khadi and Village Industries Board is shown in following table.

TABLE 3.7 (B)

Units assisted by Khadi and Village Industries Board

Year	Units	Production (Lakhs)	Sale (Lakhs)	Employment
1.	2.	3.	4.	5.
1986-87	703	140.00	200.00	2200
1987-88	513	136.00	184.00	1610
1988-89	652	137.93	194.02	2143

(Source :- Khadi and Village industries Board)

In addition to this there are 7539 artisans who were members of Balutedar Co-operative Society have been brought under the Rural Artisans Employment Guarantee Scheme implemented by Khadi and Village Industries Board.

Sericulture, Bio-gas plant, artisans employment scheme are the main programmes of Khadi and Village Industries Board. The programmes will be intensified in future years.

3.8 MAHARASHTRA STATE FINANCIAL CORPORATION :

The Maharashtra State Financial Corporation (MSFC) has been set up under the Act of Parliament entitled the "State Financial Corporation Act-1951" to assist industrial development by catering to financial needs of the medium and small scale industries in accordance with the industrial policy of the Government. The Corporation is established during 1961.

The main function of the Corporation is to meet the term loan requirements of small and medium scale industries for acquisition of fixed assets like land, building, machinery, and equipment. The loans are given for setting up new industrial units as well as for expansion and modernisation of the existing units. The objective of the Corporation is to promote more industries in backward and developing areas.

In terms of MSFC's act, the concerns which are engaged in or to be engaged in manufacture, processing, preservation, mining, hotel industry, transport of passengers or goods by road or water, maintenance, repair, testing or servicing of machinery of any description or vehicle or vessels, assembling, repairing or packing any article with the aid of machinery or power are eligible for financial assistance from the Corporation. Industrial concerns whose constitution is proprietary, partnership, Hindu undivided family, Private or Public Ltd. company, registered Co-operative Society are eligible to get financial assistance from the Corporation.

The development of mines, developments of any process of product where research is undertaken, are also eligible for existence from the corporation.

The Corporation considers term loan only for acquisition of fixed assets such as land, building or plant and machinery. Loans for working capital, re-payment of old debts, whether from Bank or private party are not considered.

The Maharashtra State Financial Corporation has assisted to small scale and medium scale industries and transport sector in Nagpur District during the last two years is as below.

Sr. No.	Type of Units	No. of units assisted			
		1986-87		1988-89	
		Units	Rs.in lacs	Units	Rs.in lacs
1.	Small and medium Scale industries	71	572.01	80	773.24
2.	Transport Sector	24	19.27	38	32.28
Total		95	591.28	118	805.52

(Source:- M.S.F.C. Nagpur)

3.9 STATE INDUSTRIAL AND INVESTMENT CORPORATION OF MAHARASHTRA. (SICOM):

This is one of the most dynamic State Level Organisation in the field of promotion of industries in developing parts of the State. The SICOM offers a package of multipurpose service to entrepreneurs, helps in project identification and project promotion. It assists entrepreneurs in selection of locations, equipment leasing and supply of raw materials and machinery. It also acts as consultancy organisation.

The financial assistance given by the SICOM in Nagpur district on 30th June, 1988 is as below.

(Rs. in lakhs)

Under SICOM Scheme		Package Scheme of Incentives.		Central Subsidy	
Sanction	Disbursement	Sanction	Disbursement	Sanction	Disbursement
5572.10	3794.62	1350.85	1050.81	-	-

(Source :- SICOM, NAGPUR)

The number of units committed investment catalysed and employment generated in Nagpur district as on 30th June, 1988 is as below.

(Rs. in Lakhs)

Sr. No.	Item	No. of Units	Financial assistance	Employment generated
1.	Units in Production.	354	21783.83	41212
2.	Units under construction.	16	15866.07	-
3.	Units in proposal stage.	45	10047.11	-

(Source:- SICOM, NAGPUR)

3.10 OTHER FINANCIAL INSTITUTES :

The institutions such as Life Insurance Corporation, Unit Trust of India, etc. render financial assistance directly to the entrepreneurs in the district.

MAHATMA PHULE BACKWARD CLASS DEVELOPMENT CORPORATION :

The corporation has been established in the month of July 1978 with an object of development of backward class communities. Persons belonging to scheduled castes, scheduled tribes and nomadic tribes are getting advantage of the Margin Money Scheme being implemented by the Corporation.

The regional office of Corporation is located at Nagpur. The loan upto Rs.5000/- is given by the Corporation. The Corporation acts as an implementing agency for the welfare of

beneficiaries of the scheme should not have a family income exceeding Rs.4200/- and Rs.3600/- per annum in the urban and rural areas respectively.

Mahatma Phule Backward Class Development Corporation Ltd. mobilises the resources to the neglected sector by providing marginal capital to the entrepreneurs.

The Corporation implements the following scheme:-

1. Loan Subsidy Scheme:- Rs.2500/- or 50% subsidy is sanctioned by the Corporation on sanction of Rs.2500/- or 50% loan by bank. (Maximum scheme cost Rs. 5000/-)
2. I.R.D.P. Tie-up Scheme:- 16.67% or 25% additional subsidy is disbursed by the Corporation on sanction of 50% loan by banks and 33.33% or 25% subsidy is sanctioned and disbursed by D.R.D.A. under I.R.D.P.
3. Training Programme:- Stipend and other expenses are paid by the Corporation to impart training in various technical trades to School/College drop-outs in urban area. The scheme is implemented on the line of TRYSEM.
4. Co-operative Societies Share Purchase Scheme:- Amount to the extend of Rs.200/- is given to each. In case of Sugar Co-operative and Spinning Co-operative the amount is Rs.1000/- and Rs.2000/- respectively. (50% Bank loan and 50% subsidy)
5. Employment Promotion Programme:- Seed Capital Assistance to educated unemployed is paid at the rate of 22.5% for the projects involving cost upto Rs.1 lakhs and 15% for the projects above Rs. 1 lakh and upto Rs. 3 lakhs. (Maximum cost considered as Rs. 3 lakhs)
6. Share Capital Scheme:- Under this scheme the Corporation sanctions 25% Share capital (Margin Money) after sanctioning the 75% loan Rs.12000/- and necessary working capital.

The financial assistance given by the Mahatma Phule Backward Class Development Corporation during the year 1987-88 and 1988-89 is given below.

(Rs.in lakhs)

Sr. No.	Scheme	No. of Borrowers		Amount	
		1987-88	1988-89	1987-88	1988-89
1.	Under SCP 50% subsidy	1101	1260	21.64	27.87
2.	Under Margin Money	116	152	4.93	6.66
3.	Under IRDP Scheme	856	218	6.89	2.15
4.	Under Training Scheme	104	129	1.40	1.43

LOKSHAHIR ANNABHAU SATHE DEVELOPMENT CORPORATION :

Lokshahir Annabhau Sathe Development Corporation is established on 11th July 1985 for the development of the people in Matang caste. It implements subsidy and seed money assistance scheme.

The financial assistance given by the Corporation during the year 1987-88 and 1988-89 is given below.

(Rs.in lakhs)

Sr. No.	Scheme	No. of Borrowers		Amount	
		1987-88	1988-89	1987-88	1988-89
1.	Under Seed 50%	224	255	4.42	5.05
2.	Under Margin Money	11	16	0.38	0.57
3.	Under IRDP Scheme	33	--	0.21	---
4.	Under Training Scheme	15	12	0.28	0.25

VASANTRAO NAIK SCHEDULED TRIBE & NOMADIC TRIBE -
DEVELOPMENT CORPORATION :

The Corporation is established on 8th February, 1984 for the development of Scheduled Tribe and Nomadic Tribe people below poverty line. The Corporation implements the scheme of Seed Money assistance on the interest of 4 percent.

The financial assistance given by the Corporation during the year 1987-88 and 1988-89 is given below.

(Rs. in lakhs)

Sr. No.	Scheme	No. of Borrowers		Amount	
		1987-88	1988-89	1987-88	1988-89
1.	Margin Money Scheme	130	70	1.66	1.13

MAHARASHTRA AGRO INDUSTRIES DEVELOPMENT CORPORATION :

The Maharashtra Agro Industries Development Corporation Ltd. has its Regional Office in Nagpur. The M.A.I.D.C. is mainly active in the field of agricultural inputs and processing of agricultural product like distribution of tractors, manufacture of different grades of fertilizers and pesticides formula of animal feed for cattle, poultry etc.

The M.A.I.D.C. has taken over NOGA plant at Nagpur for processing of fruits and vegetables. In addition to this M.A.I.D.C. is also implementing the Government of India Scheme of providing comprehensive services to agricultural communities through the agricultural graduates by motivating them to start such ventures. MAIDC has sponsored 15 Agro Service Centres at various places in the district.

(A) Processing of Fruits and Vegetables:- The Corporation took over the NOGA factory at Nagpur in 1972. The capacity of the plant is increased upto 4300 M.T. per annum. The total investment as on 30/4/1987 amounted to Rs. 89.04 lakhs. The actual production, sales of product exported under the brand name 'NOGA' to various countries is given below.

Year	Production (in M.T.)	Sales (in lakh)	Value of Product exported (Rs. in lakhs)
1984-85	3074	372.36	80.22
1985-86	3640	356.27	83.49
1986-87	1722	265.26	15.85

(B) Sprinkler Irrigation System:- The Corporation supplies "Sprinkler Irrigation System" sets for upliftment of production of oil seeds under National Oil Seeds Development Project. During 1986-87, 2304 sets were supplied/ installed.

The Corporation supplied Mini Kits of Fertilizers under Govt. Scheme. It also supplies bio-fertilizers like Rhizobium Culture and Azotobacter Culture under Government programme.

MAHARASHTRA STATE HANDLOOM CORPORATION :

The Maharashtra State Handloom Corporation was set-up in 1971 with its head office at Nagpur. It is particularly aimed at development of Handloom Industries in Vidarbha region. The MSHC is assisting the handloom weavers out-side the co-operative fold and has implemented the production marketing scheme etc. covering approximately 12,625 handloom weavers from Nagpur city with the help of commercial banks. MSHC is also undertaking yarn distribution, marketing of handloom weavers assisted by the Corporation.

TABLE

Position of Maharashtra State Handloom Corporation for Nagpur district during 1987-88 and 1988-89 is given below.

Sr No.	Description.	1987-88	1988-89
1.	Total No. of Handlooms	8665	8716
2.	Total No. of Workers	21663	21790
3.	Production (Lakh Meter)	156.95	155.10
4.	Production Value (Lakh)	937.08	1152.68
5.	Production Sale (Lakh)	485.83	390.38

(Source :- M.S.H.C. Limited, Nagpur)

MAHARASHTRA ELECTRONICS CORPORATION :

Maharashtra Electronics Corporation has been established on 4th May, 1978 for balanced development of Electronics Industry. About 25 Hectares land is reserved for Electronics Zone by the Corporation at Nagpur in M.I.D.C. area. The work of providing facilities like constructed accomodation, roads, water and other facilities on this land is undertaken by the Corporation.

As the land is limited, the Corporation has adopted the policy to provide constructed blocks on hire purchase to the industrialists as detailed below.

Details	Block No.1	Block No.2	Block No.3	Block No.4
Constructed area (Hire Purchase)	958 sq.ft.	1660 sq.ft.	2069.68 sq.ft.	3945.00 sq.ft.
Cost of Block (including cost of land)	Rs.1,82,000	Rs.315500/-	--	--

SMALL INDUSTRIES SERVICE INSTITUIE :

The Small Industries Service Institute is an independant service institute having its office at Nagpur. The institute provides basic information to the entrepreneurs such as existing production of a particular item, market, project demand, technical demand, technical guidance, Govt. policy regrading Small Scale industries, management and technical guidance, training courses, industrial designing, export promotion, modernisation, quality control are the main activities of the institute.

3.11 LEAD BANK :

The Bank of ~~Maharashtra~~ ^{gndia} is the Lead Bank for the Nagpur district.

The eradication of poverty is the important goal. The "Area approach" idiology has been converted into "Lead Bank Scheme", one particular bank in the district was vested with the

responsibility to co-ordinate functions of various banks and different Government agencies in their aim to eradicate the poverty.

The Reserve Bank of India co-ordinates the scheme and issues guidelines keeping in view the national policy.

The sector-wise performance of lead bank in Nagpur district during 1985, 1986 and 1987 is given below:-

TABLE 3.7

Performance of Lead Bank during 1986-88

(Rs. in Lakhs)

Sr. No.	Sector	1986			1987			1988		
		Target	Achievement	%	Target	Achievement	%	Target	Achievement	%
1	2	3	4	5	6	7	8	9	10	11
01.	Agriculture	1046	13822	1321	470	1232	262	1374	1732	126
02.	Activities allied to Agriculture.	334	149	45	200	166	83	231	264	115
03.	Small Scale Industries.	140	394	282	259	487	188	274	409	149
04.	Transport	116	158	135	109	110	101	95	111	117
05.	Retail Trade	79	117	149	90	142	158	212	149	70
06.	Small Business	-	109	-	-	108	-	-	107	-
07.	Professionals & self-employed persons.	80	63	79	85	78	92	77	56	73
08.	Others.	15	6	39	10	4	42	2	4	218
Total		1810	14818	818	1223	2327	190	2265	2832	125

(Source :- Lead Bank Report, Nagpur)

DISTRICT CREDIT PLAN : 1988-90

The sector-wise allocation under the District Credit Plan 1988-90 of Nagpur district as prepared by the Lead Bank is given below :-

TABLE : 3.8

Credit Plan for Lead Bank 1988-90

Sr. No.	Sector	No. of Accounts	Credit to be Provided (Rs. in '000')
1	2	3	4
01.	Agriculture	38077	290755
02.	Allied Agriculture	11636	69212
03.	Small Scale Industries	5222	82720
	Other Sectors -		
04.	Transport Operator	328	30872
05.	Retail Trade & Small Business.	8945	62615
06.	Professional and Self-Employment.	2374	23740
07.	Others	60	600
TOTAL -		66642	560514

(Source :- District Credit Plan 1988-90)

Block-wise Credit allocation under District Credit Plan 1988-90

The following table gives tahsil-wise break-up of credit plan allocation-

TABLE : 3.9

Tahsil-wise allocation of Credit Plan 1988-90

Sr. No.	Tahsil	District Credit Plan total district outlay		% Share to total credit for the district.
		No. of Accounts	Amount (Rs.in '000')	
1	2	3	4	5
1.	Nagpur	5648	52944	9.44
2.	Kamptee	5134	46140	8.23
3.	Hingana	5331	43124	7.70
4.	Katol	4686	35610	6.35
5.	Narkhed	5746	46253	8.25
6.	Kalmeshwar	3436	28112	5.01
7.	Saoner	6255	50936	9.08
8.	Ramtek	4862	47156	8.42
9.	Parshioni	4371	37129	6.62
10.	Mouda	6376	57731	10.30
11.	Umred	6670	52915	9.45
12.	Bhivapur	3816	32233	5.75
13.	Kuhi	4301	30231	5.40
Total		66642	560514	100.00

(Source :- Lead Bank Credit Plan 1988-90)

Credit Plan 1988-

The Credit Plan for the year 1988 was as under -

Sr. No.	Sector	No. of Accounts	Credit proposed (Rs. in '000')
1	2	3	4
1.	Agriculture	21921	137437
2.	Allied Agriculture	3954	23053
3.	Small Scale Industries	1761	27435
Other Sectors -			
4.	Transport Operator	106	9486
5.	Retail traders & Small business.	3035	21945
6.	Professional & Self-employment.	772	7720
7.	Others	19	190
Total -		31568	226566

(Source :- District Credit Plan 1988-90)

The following table gives tahsil-wise break-up of Credit Plan 1988 :-

TABLE 3.10

Tahsil-wise Credit Plan 1988

(Rs. in '000')			
Sr. No.	Tahsil	No. of Accounts	Credit Proposed
1	2	3	4
1.	Nagpur	2719	21269
2.	Kamptee	2171	17135
3.	Hingana	3086	19091
4.	Katol	2265	15280
5.	Narkhed	2638	18514
6.	Kalmeshwar	1593	11152

Contd.

1	2	3	4
7.	Saoner	3018	21444
8.	Ramtek	2000	16565
9.	Parshioni	2164	15159
10.	Mouda	3161	24899
11.	Umred	2989	20477
12.	Bhivapur	1778	12752
13.	Kuhi	2062	12839
Total -		31568	226566

3.12 (A) INTEGRATED RURAL DEVELOPEMENT PROGRAMME (IRDP) :

The Intergrated Rural Development Programme was initially started in the year 1978-79 in Maharashtra State. The IRDP is an individually beneficiary oriented programme and is under implementation as per guidelines of Government of India.

The object of this programme is to provide productive income generating package to all rural families below poverty-line i.e. rural families whose net income does not exceeds Rs. 3500/- and who have un-irrigated land holding size upto two hectar in Non-DPAP area and three hectar in DPAP areas; and imparting training in self-employment etc.

The IRDP involves identification of families belonging to target group consisting of agricultural labourers, small and marginal farmers, non-agricultural labourers, rural artisans as per census of house-holds below poverty line carried out in 1982. In Nagpur district about 76,838 families were below poverty as on 1-4-1986. The families who were given financial assistance during sixth plan but who have not crossed the poverty line and found eligible for second dose of assistance have also been covered. These families were treated as new families for purpose of identification.

The progress under IRDP (covering new and old beneficiaries) during the year 1987-88 and 1988-89 is given below :-

TABLE : 3.11
Progress of I.R.D.P.

Sr. No.	Tahsil	Year	Expenditure. (Rs.in lacs)	Beneficiaries (New + Old) covered under			
				Total	SC	ST	Women
1.	Nagpur	87-88	17.99	966	212	303	270
		88-89	8.70	446	96	120	107
2.	Kamptee	87-88	9.25	621	182	58	272
		88-89	6.60	366	127	51	143
3.	Hingana	87-88	15.85	802	110	375	445
		88-89	10.99	480	92	238	259
4.	Saoner	87-88	16.17	960	242	196	221
		88-89	11.99	597	233	110	124
5.	Kalmeshwar	87-88	11.95	678	181	152	170
		88-89	5.58	334	88	45	73
6.	Katol	87-88	17.19	848	211	335	75
		88-89	11.30	552	128	182	90
7.	Narkhed	87-88	19.05	900	247	168	350
		88-89	13.50	618	215	115	164
8.	Ramtek	87-88	12.09	628	140	226	153
		88-89	10.20	479	99	172	123
9.	Mouda	87-88	13.41	825	201	118	191
		88-89	6.92	344	71	84	143
10.	Parshionni	87-88	13.91	728	181	116	103
		88-89	10.14	451	103	81	151
11.	Umred	87-88	8.82	893	224	294	223
		88-89	8.67	406	83	169	118
12.	Bhivapur	87-88	14.45	838	292	211	241
		88-89	7.20	377	126	109	108
13.	Kuhi	87-88	13.41	863	310	54	185
		88-89	7.61	457	167	27	122
Total		87-88	191.54	10550	2763	2608	2559
		88-89	119.41	5907	1545	1491	1715

(Source : Project Director, D.R.D.A.)

During the year 1988-89 the per beneficiary investment in the district was Rs.2021/- as against the State average of Rs.5512/-.

(B) National Rural Employment Programme (NREP) :

The National Rural Employment Programme was also implemented by the D.R.D.A. This programme is sponsored by the Government of India. The programme should lead to generation of employment, creation of durable community assets, improvement in standard of poor rural population.

The programme (1) Village Panchyat Works, (2) Housing facilities for SC/ST and Social Forestry were implemented in the district.

(C) TRYSEM :

A centrally sponsored scheme "Training of Rural Youth for Self Emploment (TRYSEM)" was launched by the Government of India in the department of Rural Development on 15th August, 1978. TRYSEM is a facilitating component of the Integrated Rural Development Programme.

The objective of TRYSEM is to provide technical skills to rural youth from families below poverty line to enable them to take-up self-employment in the broad fields of agriculture and allied activities, industries, services and business activities.

The training under TRYSEM would be provided on the basis of actual need and requirement and hence there would be no seperate targets at a micro level under TRYSEM. The cost of training in the form of stipend, etc. is to be met out of the funds set out for infrastructure, etc. under IRDP. The Government has decided to establish Trysem Training Centre at Katol. A syllabus of 13 technical trades has been finalised by the Rural Development Department.

The tahsil-wise position of progress of TRYSEM year 1987-88 and 1988-89 is given below :-

Sr. No.	Tahsil	Trained		Assiste	
		87-88	88-89	87-88	88-89
1.	Nagpur	40	52	24	25
2.	Kamptee	44	45	30	22
3.	Katol	55	58	13	20
4.	Kalmeshwar	40	40	20	22
5.	Kuhi	50	33	25	20
6.	Mouda	41	41	39	23
7.	Ramtek	43	40	22	15
8.	Umred	42	56	21	22
9.	Bhivapur	44	43	22	24
10.	Narkhed	31	41	20	22
11.	Saoner	42	41	24	22
12.	Hingana	43	41	20	23
13.	Parshioni	53	64	28	22
Total		568	595	308	282

(Source :-D.R.D.A., Nagpur)

The expenditure incurred under TRYSEM scheme during the year 1987-88 and 1988-89 was Rs. 7.99 lakhs and Rs. 10.43 lakhs respectively.

(D) Tribal Sub Plan :

The Tribal Sub Plan area scheme has been made applicable to selected villages in Ramtek tahsil. The special schemes for upliftment of tribals are under implementation. Funds from State's annual plan have been earmarked for this scheme. The scheme is also extended to the tribals residing outside tribal sub plan area.

(E) Waste Land Development Programme :

The Forest Development Corporation of Maharashtra is implementing this scheme. It is proposed to cover an area of 4620 hectares under this scheme during 1988-89.

3.13 EMPLOYMENT :

Employment Trend -

The Employment Exchange collects information about employment in Private and Public sector consist of offices of State and Central, local self-Government and other organisations controlled by these agencies and private sector comprises non-agricultural, non-household establishments.

The following table indicates the employment trend in Private and Public sectors during the year 1986-87, 1987-88 and 1988-89.

TABLE 3.12

No. of Establishments in Public and Private Sectors
in Nagpur District.

Year	No. of Establishments			Employment		
	Public	Private	Total	Public	Private	Total
1	2	3	4	5	6	7
1986-87	560	601	1161	177,554	35,192	212,746
1987-88	606 (+8.21)	767 (+27.62)	1373 (+18.26)	181,731	40,367	222,098
1988-89	625 (+3.13)	707 (-7.83)	1332 (-3.00)	181,407	41,853	223,260

(Source :- Employment Exchange, Nagpur)

(Note:- Figures in bracket shows the percentage change over.)

3.14 EMPLOYMENT IN WOMEN :

The following table shows the position of employment in women in Public and Private sectors for the year 1986-87, 1987-88 and 1988-89 as supplied by the Employment Exchange, Nagpur.

TABLE 3.13

Employment of Women in Public and Private sector

Year	Employment in Women			% Change over		
	Public	Private	Total	Public	Private	Total
1986-87	16830	6047	22,877	---	---	---
1987-88	16919	6612	23,531	+0.52	+9.34	+2.85
1988-89	17403	7940	25,343	+2.86	+20.08	+7.70

It will be seen from the above table that the Public Sector was the main employer for women.

3.15 UN-EMPLOYMENT POSITION :

One of the important sources of assessing unemployment is, the data relating to number of employment seeker on live register of District Employment Exchange.

The information regarding persons registered and on Live Register with the Employment Exchange is given below :-

TABLE 3.14

Persons registered with Employment Exchange and remaining on Live Register.

Year	Persons Registered			Persons on Live Register		
	Male	Female	Total	Male	Female	Total
1987-88	19241	9380	28621	149,924	47,550	197,474
1988-89	24755	9051	33806	145,817	48,057	193,874
	(+28.6)	(-3.6)	(+18.0)	(-2.4)	(+1.6)	(-1.6)

(Figures in brackets indicate percentage change over the previous year)

(Source :- Employment Exchange, Nagpur.)

3.16 UN-EMPLOYMENT AMONG EDUCATED PERSONS :

The Employment Exchanges have classified the educated un-employed persons on live Register by their qualifications.

This classification is presented in the statement given below : -

TABLE 3.15

Classification of Educated unemployed on Live Register of Employment Exchange for 87-88 & 88-89

Sr. No.	Qualifications	No. of educated un-employed on Live Register.		% change over 1987-88
		1987-88	1988-89	
1.	<u>Non-Technical -</u>			
	i) S.S.C. Passed	74,320	79,840	+7.42
	ii) Higher Secondary	10,506	10,418	-0.84
	iii) Graduates	8,437	8,689	+2.98
	iv) Post Graduates	1,694	1,258	-26.0
2.	<u>Technical -</u>			
	a) Engineering Diploma Holders	738	902	+22.2
	b) I.T.I. trained, apprentices.	2,560	2,780	+8.59
	TOTAL	98,255	103,887	+5.73

(Source :- District Employment Exchange, Nagpur.)

3.17 PERSONNEL IN DEMAND :

As per the Compulsory Notification of Vacancies Act, 1959: the vacancies were required to be notified to the Employment Exchanges. The information regarding number of vacancies notified, number of vacancies filled and outstanding at the end of December 1987 and December 1988 is given below :-

TABLE 3.16

Sr. No.	Occupations	No. of vacancies					
		Notified		Filled		Outstanding	
		87 3	88 4	87 5	88 6	87 7	88 8
1.	Chemist	1	-	-	-	-	-
2.	Geophysicist	1	-	-	-	-	-
3.	Laboratory Asstt. (Chemical)	-	-	-	-	-	2
4.	Laboratory Asstt. (Geological)	2	-	1	-	2	2
5.	Laboratory Asstt. (Others)	1	3	-	1	2	-
6.	Electrical Engineer (General)	1	-	-	1	1	1
7.	Mechanical Engineer (Production)	-	1	-	-	-	1
8.	Mining Engineer (Non-metal)	1	-	-	-	-	-
9.	Planning Engineer	-	-	-	-	2	2
10.	Industrial Engineer	2	-	-	-	-	-
11.	Surveyor	3	-	-	3	3	3
12.	Textile Technologist	-	-	-	-	1	1
13.	Draughtsman Civil	10	10	1	2	8	15
14.	Draughtsman Mech.	4	1	2	-	-	4
15.	Overseer, Civil Engg.	22	9	12	8	34	13
16.	Civil Engineering Technician.	1	-	-	-	-	-
17.	Electrical Engineering Technician.	2	1	-	-	2	4
18.	Electronic Technician	-	3	-	-	9	14
19.	Telecommunication Technician.	-	-	1	-	-	-
20.	Electrical & Electronics Technician.	-	-	1	-	7	7
21.	Technician (M.E.Overseer)	5	3	11	-	2	2

1	2	3	4	5	6	7	8
22.	Laboratory Asstt. (Petroleum, Lubricant)	3	-	-	4	3	-
23.	Rock Slicer	-	1	-	-	-	-
24.	Plane Tabler (Ground Surveyor)	10	-	-	6	-	8
25.	Tracer	1	3	1	-	24	1
26.	Blue Printer	3	-	-	-	4	-
27.	Laboratory Asstt. (Chemical Medical)	14	15	2	15	8	8
28.	Laboratory Technician (Artificial Breeding)	-	-	-	-	10	-
29.	Chemist Pharmaceutical	-	1	-	2	-	-
30.	Pharmacist Dispenser	6	21	11	3	16	19
31.	Vaccinator	1	-	4	-	-	-
32.	Dresser	-	3	1	-	-	3
33.	Nurse General	11	14	5	3	26	25
34.	Midwife	5	6	1	3	6	2
35.	X-Ray Technician	1	33	-	-	3	34
36.	Optician General	-	-	-	-	-	1
37.	Nursing Attendent	7	19	1	-	5	13
38.	Sanitary Inspector	14	2	4	1	103	5
39.	Scientific Medical and Technical & Health Inspector.	2	-	-	1	5	2
40.	Statistical Assistant	1	3	1	-	-	3
41.	Accountant	2	1	1	-	3	4
42.	Librarian	4	3	-	1	4	10
43.	Womenn's Welfare Officer	3	-	-	-	3	3
44.	Labour Welfare and Social Workers.	-	-	-	-	-	4
45.	University and College Teachers.	-	-	-	-	-	1
46.	Primary School Teacher	155	122	72	49	111	102
47.	Middle School Teacher	-	-	-	-	-	8

1	2	3	4	5	6	7	8
48.	Teacher Infant School	85	1	-	-	95	-
49.	Manual Training Teacher	7	3	-	-	4	2
50.	Art Teacher	7	-	-	-	7	-
51.	Photographer	1	1	2	1	-	2
52.	Sculptor, Painter	-	-	-	-	-	1
53.	Singer, Vocal Musician	3	-	1	-	-	2
54.	Instrument Musician	-	-	2	-	-	-
55.	Physical Training Instructor	1	-	-	-	-	-
56.	Laboratory Attendant (Demonstrator)	6	6	-	7	15	4
57.	Administrative and Executive Official.	-	-	-	-	1	-
58.	Working Proprietor	-	-	-	-	1	1
59.	Manager	-	-	-	-	-	1
60.	Senior Clerk	8	22	-	6	3	19
61.	Typist	53	29	32	10	58	34
62.	Teleprinter Operator	1	-	4	-	2	3
63.	Stenographer, Steno-Typist	34	29	11	10	45	55
64.	Key Punch Operator, Card Punching.	1	-	2	-	-	-
65.	Account Clerk	13	7	4	5	12	15
66.	Machine Supervisor	11	2	-	10	16	-
67.	Clerk (General)	107	90	63	52	118	114
68.	Store-keeper	4	1	2	1	3	-
69.	Library Clerk	1	-	-	-	-	-
70.	Time-keeper	1	-	-	-	1	-
71.	Daftary	-	-	-	-	3	-
72.	Peon, Office-boy	208	136	101	87	129	206
73.	Dusting Man, Farash	28	7	13	2	19	5
74.	Supervisor (Wireless)	1	2	1	-	4	4
75.	Line Inspector (Telegraph)	-	-	-	-	6	6
76.	Conductor (Tram)	-	-	-	-	-	1

1	2	3	4	5	6	7	8
77.	Conductor(Bus)	109	130	31	87	82	129
78.	Messenger, Dak Peon	1	-	6	-	5	3
79.	Telephone Operator(Trunk)	6	3	1	3	4	5
80.	Telephone Operator(Local)	1	-	-	-	1	-
81.	Station Technical Asstt.	1	1	-	-	5	6
82.	Wireless Operator	2	3	-	3	-	3
83.	Sales Representative	4	1	4	-	-	1
84.	Salesman (Wholesale)	2	1	-	-	2	1
85.	Salesman (Retail)	1	3	-	1	1	1
86.	Cook	18	14	10	5	3	10
87.	Waiter	7	5	6	1	6	1
88.	Ayah, Nurse-Maid(domastic)	3	-	-	-	1	6
89.	Sweeper Wet	81	102	62	33	37	90
90.	Water Carrier	883	360	330	301	9	20
91.	Dhobi	1	4	-	1	3	2
92.	Barber	2	1	1	-	-	1
93.	Fire Officer	-	-	-	-	10	5
94.	Fire Fighter	1	3	-	-	1	3
95.	Sub-Inspector Police	2	-	-	-	2	-
96.	Police Constable	530	77	79	19	195	3
97.	Detective	5	-	-	-	5	-
98.	Security Officer	1	22		15	2	8
99.	Watchman, Chowkidar	107	24	18	38	105	48
100.	Gateman	26	22	1	8	42	17
101.	Tractor Operator	1	1	1	-	-	1
102.	Live Stock Workers	-	-	1	-	-	-
103.	Gardener, Mali (General)	21	5	5	8	31	8
104.	Forest Guard	1	13	-	-	-	-
105.	Overman, Mine Foreman	-	2	-	-	-	-
106.	Drilling Operatives	32	26	-	29	40	-

1	2	3	4	5	6	7	8
107.	Supervisors (Mining Drilling)	-	-	-	2	-	-
108.	Moulder	4	-	-	-	1	1
109.	Gasman, Coke Oven Operator	1	-	-	-	1	1
110.	Refining Machine Operator	-	-	-	6	-	-
111.	Tailor (General)	1	5	-	1	-	4
112.	Shoe Maker (General)	2	1	-	-	-	1
113.	Shoe Repairs (Cobbler)	-	1	-	-	-	1
114.	Leather Cutter (Hand)	-	-	-	-	-	1
115.	Carpenter (General)	5	3	-	6	4	3
116.	Black-smith (Lohar)	2	-	-	-	1	-
117.	Machinist (General)	10	10	3	8	5	38
118.	Turner	4	1	2	1	-	-
119.	Machine Tool Operator	3	53	3	29	-	2
120.	Mechanic Dental	1	-	-	-	-	-
121.	Fitter (General)	22	12	2	1	18	42
122.	Fitting, Assembling, Machine Operator.	2	-	-	-	-	-
123.	Motor Vehicle Repairing Operatives.	-	45	-	1	-	45
124.	Mechanic (Diesel engine, oil engine)	-	8	-	5	1	1
125.	Mechanic (Gas engine)	-	12	-	-	-	-
126.	Millwright Mechanic- Maintenance.	3	3	-	1	4	1
127.	Machanic (Refrigeration- and air-conditioning)	-	1	-	-	-	2
128.	Mechanic (Sewing Machine)	1	-	10	-	16	16
129.	Supervisor and Foreman (Electrician)	1	1	-	-	1	-
130.	Electrician (General)	17	8	1	6	15	9
131.	Mechanic Precision Instrument (Electrical)	-	1	-	-	-	-
132.	Electrician (Repairing)	6	1	5	-	3	3

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1	2	3	4	5	6	7	8
133.	Electronics Mechanic	2	1	1	-	-	1
134.	Radio Mechanic	3	1	-	2	3	1
135.	Radio & Television Mech.	-	1	-	-	-	-
136.	Wireman	7	2	3	6	7	5
137.	Electrician (Automobile)	1	-	-	-	1	-
138.	Electrical Wiring- Operatives.	-	1	-	-	-	-
139.	Maintenance Mechanic (Telephones)	-	7	-	-	-	6
140.	Lineman	4	1	-	-	4	-
141.	Television Broadcasting Station Operator.	-	11	-	11	-	-
142.	Cinema Operator	-	1	-	-	-	-
143.	Plumber (General)	2	1	4	-	3	2
144.	Welder (Gas)	9	5	3	1	-	4
145.	Blower, Glass Blows	1	-	-	-	-	-
146.	Machineman(Offset Printing)	-	-	-	-	4	-
147.	Printing Press Operatives	-	1	-	-	-	-
148.	Book-Binder	3	-	-	-	1	1
149.	Painter (General)	-	-	-	-	3	-
150.	Coner	-	1	-	2	-	1
151.	Stone Mason	2	3	-	1	1	1
152.	Stationery Engine Driver	2	-	-	-	-	-
153.	Air Compressor Operator	-	2	-	-	-	3
154.	Turbine Operator	2	-	-	-	-	-
155.	Pumpman	4	-	11	-	3	2
156.	Boiler Attendant	5	5	-	-	1	1
157.	Boiler house operatives cleaner (Motor)	13	5	-	8	12	6
158.	Oiler	-	-	-	-	-	42
159.	Crane operator	-	-	-	-	9	1

1	2	3	4	5	6	7	8
160.	Tester	-	-	-	-	-	2
161.	Liftman	-	1	-	-	-	1
162.	Lascar	71	11	3	14	38	6
163.	Driver (Car)	17	6	14	2	45	21
164.	Driver (Truck)	61	51	40	16	76	35
165.	Driver (Autorickshaw, Motor-cycle)	1	-	1	-	-	-

(Source :- Employment Office, Nagpur)

The job opportunities that were notified were far less than the inflow of registration.

The Government was the main employer, but during the last two years the Government had stopped the new recruitment and there were less opportunities.

CHAPTER-IV

VOCATIONAL EDUCATION - CURRENT STATUS AND STUDY IN FUTUROLOGY

4.1 INTRODUCTION :- The concept of vocational education moves around diversification in educational opportunities to enable the students to choose subjects and programme of study in wide field of knowledge and skills keeping with their aptitude, interest and abilities. This will ultimately help them to increase their confidence in relevant areas and increase their employability. Those in turn will provide society with personnel having a wide spectrum of knowledge and training to meet diverse manpower for the economic development.

4.2 In less than 12 years, from now we will be entering 21st century. The young generation with secondary and higher secondary education with competency in knowledge and skills would serve as agents of change. Vocational education is an important input for all round development not only in the fields of Science and Technology and other feasibility areas but it will contribute to increase productivity in all sectors of economy keeping in view all these important aspects and previous experiences in the field of Vocational Education. The New Educational Policy emphatically lays stress not only on vocational education at +2 stage but even it has recognised the importance of diversification of vocational education from 9th standard.

The objects and methodology of Vocational Survey has been given in beginning. The present chapter enumerates the vocations which will be important in the present economic set-up of the district. Attempt has been made to obtain possible manpower requirements both with the help of Survey and by holding discussions with the various heads of offices, trade organisations, associations and knowledgeable persons in the district. The details of sector-wise findings are discussed in the forthcoming paragraphs.

The methodology of the survey adopted for summing up of findings of this survey was as below :-

- a) The economy of the district studied in depth with its agricultural, industrial, educational, infrastructural and resources available for arriving fair assessment of existing and emerging occupations.
- b) The views of progressive cultivators and knowledgeable persons in different fields were ascertained. But though the views expressed have indicated certain types of vocations and courses, the suggestions have to be considered from the point of views of practicability and Government Policy on vocational education.
- c) The findings of survey revealed only broad areas but not level of competency which requires a detailed job analysis of occupations.

4.3 CURRENT STATUS :

As stated in the chapter on objectives and ideology due to the recommendations of various committees and working group on vocationalisation, Govt. of India recommended introduction of vocational courses at +2 level with the objectives viz. -

- i) This vocationalisation should help to solve the unemployment problem among educated persons.
- ii) The provision of vocational courses at +2 stage should siphon out a large number of students from entering into area of university education, indirectly reducing pressure on University education.

As a follow up measure, the Govt. of Maharashtra has introduced the scheme of vocationalised education in 1978-79 initially in four districts and subsequently it was extended to all districts of Maharashtra. The Maharashtra State Board of Secondary and Higher Secondary Education, Pune initially designed 24 courses belonging to

six different groups. The courses were of bi-focal nature. After completion of the courses the student can go either to world of work or proceed for higher education. Most of the passed out students have continued higher education.

The courses were as under :-

I) TECHNICAL GROUP :

1. Electrical Maintenance,0
2. Mechanical Maintenance,
3. Scooter Motor-Cycle Servicing,
4. General Contracting,
5. Electronics,
6. Chemical Plant Operation,0
7. Computer Science.

II) COMMERCE GROUP :

8. Banking,
9. Insurance,
10. Office Management,
11. Marketing and Salesmanship,
12. Small Industries & Self Employment,
13. Elementary Industrial Management.

III) AGRICULTURAL GROUP :

14. Animal Science and Dairying,
15. Farm Mechanic,
16. Horticulture,
17. Crop Science.0

IV) FOOD TECHNOLOGY GROUP :

18. Cookery,
19. Bakery and Confectionery,
20. Food Preservation.

V) FISHERY GROUP :

21. Fish Processing Technology,
22. Fresh Water Fish Culture.

VI) PARA-MEDICAL GROUP :

23. Multi-Purpose Health Worker's Course,
24. Elementary Laboratory Technology.

In Nagpur district at present fourteen vocational courses with 1210 intake capacity have been introduced in Higher Secondary Schools/Junior Colleges as given below :-

TABLE 4.1
Institutes and Vocational Courses

Sr. No.	Tahsil	Name of the Institute.	Course Started	Year of starting	Intake capacity
1.	2.	3.	4.	5.	6.
1.	Nagpur	1) Govt. Technical High School, Nagpur.	a) Elect. Maint.	1979-80	25
			b) Mech. Maint.	1979-80	25
		2) Patwardhan (Z.P.) High-School, Nagpur.	a) Elect. Maint.	1986-87	25
		3) Govt. Medical College, Nagpur.	a) Elementary Laboratory Technology.	1979-80	30
		4) Public Health Institute, Nagpur.	a) Multipurpose Health-Worker.	1979-80	30
		5) G.S. College of Commerce, Nagpur.	a) Banking.	1978-79	25
			b) Marketing & S'manship.	1978-79	25
			c) Insurance.	1978-79	25
		6) C.P. & Berar College, Mahal, Nagpur.	a) Banking	1978-79	25
			b) Marketing & S'manship	1978-79	25
			c) Insurance,	1978-79	25
			d) Office-Management.	1978-79	25
		7) Anjuman Jr. College, Nagpur.	a) Electronics,	1979-80	25
			b) Fresh Water Fish Culture.	1979-80	25*
			c) Scooter & Motor-Cycle Servicing.	1979-80	25 25*
		8) Somalwar Jr. College, Ramdas Peth Ngp.	a) Electronics	1979-80	25
		9) Shivaji Science College, Nagpur.	a) Electronics	1979-80	25 25*
			b) Fresh Water Fish Culture	1979-80	25*

	10) Hislop College, Nagpur.	a) Electronics, b) Fresh Water Fish Culture	1979-80 1979-80	25 25
	11) Dharampeth- College, Nagpur.	a) Banking b) Marketing & S'manship c) Electronics d) Elect.Maint.	1979-80 1979-80 1979-80 1979-80	25 25 25* 50*
	12) Dhanwate National College, Nagpur.	a) Marketing & Salesmanship b) Small Indus- tries & Self Employment,	1979-80 1979-80	25 25
	13) S.F.S.Jr. College, Nagpur.	a) Fresh Water Fish Culture, b) Elect.Maint.	1983-84 1983-84	25 25
	14) Guru Nanak Jr.College, Nagpur.	a) Electronics	1985-86	25
	15) Baba Nanak Jr.College, Nagpur.	a) Electronics	1985-86	25
	16) Sindhi Hindi Jr.College, Nagpur.	a) Electronics	1985-86	25
	17) Hadas High- School,Nagpur.	a) Electronics	1985-86	25*
	18) C.P.& Benar High School, Nagpur.	a) Electronics	1985-86	25*
	19) New English High School, Nagpur.	a) Electronics	1986-87	25*
	20) Dharampeth High School, Nagpur.	a) Electronics	1987-88	25*
	21) Dinanath High School, Nagpur.	a) Electronics	1987-88	25*
	22) Ramnagar Bharat Vidhyalaya,Ngp.	a) Marketing & S'manship, b) Elect.Maint.	1987-88 1987-88	25* 25*
	23) Somalwar Jr. College, Khamla,Ngp.	a) Electronics	1987-88	25*
2.	Katol 24) Nabina Maha- vidyalaya, Katol.	a) Electronics b) Crop Science c) Horticulture	1979-80	25* 25 25

3.	Umred	25) Jivan Vikas Mahavidyalaya, Umred.	a) Banking b) Electronics	1985-86	25* 25*
		26) Vasantrao Naik Jr. College, Sirsi.	a) Electronics	1987-88	25*

Total Courses -14

Total Intake -

1210

(* Permission is granted on No-Grant-in-Aid basis.)

4.4 In 1986, National Education Policy envisaged the introduction of vocational courses approved by the NCERT, New Delhi. These courses provide Minimum Competency Level required for particular vocation to enable student to go in the "World of Work" and the courses are of terminal nature. However, the student passing this course will be eligible for apprenticeship under Apprenticeship Act, 1961. This provides him opportunity of receiving experience on shop-floor of the productive industry. The twenty courses as listed below are being introduced from 1988-89 in the State. These courses are designed by the Maharashtra State Board of Secondary and Higher Secondary Education.

LIST OF MINIMUM COMPETANCY VOCATIONAL COURSES :

GROUP I : TECHNICAL

1. Electronics Technology,
2. Building Maintenance,
3. Auto Engineering Technician,
4. Maintenance and Repairs of Electrical Domestic Appliances,
5. Mechanical Technology.

GROUP II : COMMERCE

6. Accounting and Auditing,
7. Marketing and Salesmanship,
8. Purchasing and Store-keeping.

GROUP III : AGRICULTURE

9. Horticulture,
10. Crop Science.

GROUP IV : HOTEL MANAGEMENT

- 11. Cookery,
- 12. Bakery and Confectionary,
- 13. Industrial House-keeping,
- 14. Travel and Tourism.

GROUP V : FISHERIES

- 15. Inland Fisheries,
- 16. Fish Processing Technology.

GROUP VI : PARA-MEDICAL

- 17. Medical Laboratory Technician,
- 18. X-ray Technician,
- 19. Ophthalmic Technician,
- 20. Creach and Pre-school Management.

In Nagpur district Minimum Competency Vocational Courses has been introduced since 1988-89. The details of the institutes and the courses introduced is given in following table :-

TABLE 4.2

Sr. No.	Tahsil	Name of Institute	Year of Starting	Name of Course	Intake Capacity
1	2	3	4	5	6
1)	Nagpur	1) Govt.Tech. Highschool, Nagpur.	1988-89	1) Mech.Tech.	20
				2) Electronics Technology	20
				3) M.&R. E.D.A.	20
		2) Anjuman Jr. College Nagpur	1988-89	1)Mech.Tech.	20
				2) Electronics Technology	20
				3) M.&R. E.D.A.	20
		3) New English High School Nagpur	1988-89	1) Electronics Technology	20
				2) M.&R. E.D.A.	20
				3) A/C & Auditing	20
		4) Ramnagar Bharat-Vidyalaya Nagpur	1988-89	1) Electronics Technology	20
				2) A/C & Auditing	20
				3) Bakery & Confectiary	20
		5) Sindhi Hindi High School Nagpur	1988-89	1) Electronics Technology	20
				2) M. & R. E.D.A.	20
				3) Auto Engg.Tech.	20

6)	Baba-Nanak Jr. College, Nagpur	1988-89	1) Electronics Technology	20
			2) M.&R. EDA	20
			3) A/C & Auditing	20
7)	Dharampeth High School Nagpur	1988-89	1) Electronics Technology	20
		1989-90	2) M.&R. EDA	20
		1989-90	3) A/C & Auditing	20
8)	Dinanath High School Nagpur	1989-90	1) Electronics Technology	20
			2) Marketing & Salesmanship	20
			3) Institutional Housekeeping	20
9)	Dharampeth Arts, Com., & Sci. College, Nagpur	1989-90	1) Electronics Technology	20
			2) M.&R.E.D.A.	20
			3) Inland Fisheries	20
2)	Katol	10) Govt. Tech. H.S. Centre Katol	1988-89	1) Auto Engg. Technician
				20
			2) M.&R.E.D.A.	20
			3) Mech. Tech.	20

Total Causes --- 9; Total Intake -- 600

4.5 Other Vocational Education & Training facilities :

Details of other Vocational Education & Training facilities available in Nagpur district is given below.

Sr. No.	Type of Institution	Tahsil	Total No. of Instt.	Location	
				Rural	Urban
1	2	3	4	5	6
1.	Polytechnic	Nagpur	7	-	7
		Katol	1	-	1
		Umred	2	-	2
		Kamptee	1	-	1
2.	Industrial Training Institutes	Nagpur	5	-	5
		Katol	1	-	1
		Umred	1	-	1
		Rantek	1	-	1
3.	Technical High-Schools.	Nagpur	4	-	4
		Saoner	1	-	1
		Katol	1	-	1
		Narkhed	1	-	1
		Deolapar	1	1	-
4.	Agriculture School	Hingana	1	1	-

1	2	3	4	5	6
5.	Veterinary Research- Institute.	Nagpur Ramtek	1 1	- -	1 1
6.	Public Health Institute.	Nagpur	1	-	1
7.	Radio Audio Servicing	Nagpur	5	-	5
8.	Television Servicing	Nagpur	2	-	2
9.	Hand Composing	Nagpur	1	-	1
10.	Beauty Culture	Nagpur	1	-	1
11.	Photography	Nagpur	1	-	1
12.	Craft & Handicraft	Nagpur	3	-	3
13.	Textile Training Institute.	Nagpur	1	-	1
14.	Computer Training Institute.	Nagpur	7	-	7
15.	Pharmacy (D.Pharm.)	Nagpur	1	-	1
16.	Printing Institute	Nagpur	1	-	1
17.	Tailoring School	Nagpur Katol Kalmeshwar Bhivapur Narkhed Kuhi Hingana Saoner Kamptee Parshioni Ramtek Mouda Umred	113 16 5 3 8 6 2 15 9 6 9 5 4	12 4 2 - 2 1 1 9 2 3 7 1 1	101 12 3 3 6 5 1 6 7 3 2 4 3
18.	National Environment- al Engg.& Research Institute.	Nagpur	1	-	1
19.	Central Food Tech- nology Research Instt.	Nagpur	1	-	1
20.	Central Fuel Research Institute.	Nagpur	1	-	1
21.	Central Agmark Laboratory.	Nagpur	1	-	1
22.	Cotton Research Centre of C.S.I.R.	Nagpur	1	-	1

1	2	3	4	5	6
23.	Fruit Preservation & Training Centre.	Nagpur	1	-	1
24.	Mineral & Metal Trg. Corporation.	Nagpur	1	-	1
25.	Small Industries Service Institute.	Nagpur	1	-	1
26.	One Year & Two Year Diploma Courses under Board of Tech. Exams.	Nagpur	3	-	3
27.	Typewriting Instts.	Nagpur	266	-	266
		Kamptee	12	-	12
		Saoner	2	-	2
		Parshioni	4	-	4
		Ramtek	4	-	4
		Kalmeshwar	3	-	3
		Katol	3	-	3
		Mouda	1	-	1
		Umred	7	-	7
		Kuhi	2	-	2
		Bhivapur	2	-	2
		Narkhed	4	-	4

4.6 : OTHER PROFESSIONAL INSTITUTES :

Following Professional Colleges/Institutes are functioning in Nagpur District.

Sr. No.	Name of Institute	Tahsil	Total No. of Instt.	Location	
				Rural	Urban
1.	Engineering College	Nagpur	4	-	4
		Ramtek	1	-	1
2.	Pharmacy College	Nagpur	1	-	1
3.	Agriculture College	Nagpur	1	-	1
4.	Animal Science Veterinary College	Nagpur	1	-	1
5.	Medical College (Allopathic)	Nagpur	2	-	2
6.	Dental College	Nagpur	1	-	1
7.	Ayurved College	Nagpur	2	-	2
8.	Homoeopathy College	Nagpur	1	-	1
9.	Fire Service College	Nagpur	1	-	1

Sr. No.	Name of Institute	Tahsil	Total No. of Instt.	Location	
				Rural	Urban
10.	Chitrakala(Fine Arts) Mahavidyalaya.	Nagpur	1	-	1
11.	Home Science College	Nagpur	1	-	1
12.	Law College	Nagpur	1	-	1
13.	Laxminarayan Instt. of Technology.	Nagpur	1	-	1
14.	Physical Education	Nagpur	2	-	2
15.	Diploma in Education	Nagpur	9	-	9
16.	B.Ed. College	Nagpur Katol	2 1	- -	2 1

4.7 FUTURE PROSPECTS :

Issues involved -

It is needless to emphasize the importance of very basic requirement of infrastructure in conducting all vocational training programmes, adequate accommodation, availability of required tools and equipment and raw material, learning and teaching aids, trained and qualified staff and to maintain all the afore-said things, good financial condition of the institute. If the institute lacks one of the above essentials, the student emerging out will not be acceptable in "World of Work" and ultimately a waste. The Government must extend co-operation/financial assistance to the educational institution for proper implementation of vocational courses.

4.8 APPROACH IN NUT-SHELL :

The objectives and methodology adopted in conducting vocational survey have been discussed previously. Efforts were made to illuminate the factual vocations essential with respect to the economic set-up of district and aspiration of the people. The manpower requirements was estimated through various schedules and

through discussions with various officers, knowledgeable people, commercial/industrial establishments etc. responsible for or associated with the district development.

Also an Ad-hoc Committee was appointed under the Chairmanship of Collector comprising of various district level officers of developmental departments.

The Sub-Committee of the Ad-hoc Committee were formed to study in detail the various sectors of economy (1) Primary Sector, (2) Secondary sector and (3) Tertiary sector. The Officers-Members of these committees were implementing the development schemes in the district and had knowledge of district economy, aspiration of public and hence they were helpful to obtain authentic opinion of the present situation and future development of the district. Besides discussion with experts and knowledgeable persons of various fields, office bearers of industrial and other associates, progressive cultivators, Block Development Officers, owner/manager of selected industrial units helped to assess manpower requirement and identification of courses. In addition to all this, the secondary data already available with various Government departments, helped finally to draw a possible picture of manpower requirement of the district and courses at various levels. The whole position was again discussed in the Ad-hoc Committee meeting and conclusion drawn after through discussions.

4.9 The economic development of the district is principally depends upon natural resources and progress made in various sectors viz.- (1) Primary Sector, (2) Secondary sector and (3) Tertiary Sector. These economic development sectors were examined for identifications of courses suitable to the district.

I) PRIMARY SECTOR :

This sector covers mainly agriculture, animal husbandry, fishery, forestry, plantations, mining and quarrying. To study this sector the strategy adopted included contacting knowledgeable persons, Block Development Officers, Progressive Cultivators from each tahsil, Project Director of D.R.D.A. and district officer in-charge of execution of various schemes of development in agriculture and allied activities like animal husbandry, fishery, dairying etc. The official statistics available with various departments also helped enormously.

The consultations and discussions were held with the above personnel and their views were studied and analysed in the prospective of vocations and expected vocational courses, their probable level and manpower requirement were determined and tabulised.

4.10 AGRICULTURE :

Agriculture mainly covers all branches of applied activities which deal with scientific cultivation of land, water management for production of food, fodder, fibre and other cash crops. Allied to this activity are animal husbandary, fisheries, forestry, agriculture engineering, post harvest technology, home economics, agriculture products-marketing, co-operative societies and others. Growth of agriculture depends on available technology and inputs which have assumed highly specialised character. In the sense, its development is equally complex phenomenon as industrial development and demands multi-disciplinary education for tackling various challenges involved in the growth of agriculture.

Orange is the main fruit in Nagpur district and is popular for the production of oranges all over the country. NOGA factory for processing of fruits and vegetables is already in force in Nagpur. Total product of the factory is 3640 tonnes per year.

Various types of jams, squashes, syrups, canned fruits and vegetables are prepared in the factory.

Also M/s Vasantrao Dada Sahakari Santra Prakriya Karkhana will be started in future at Narkhed. Considering the production of orange and indigenous food, fruits and vegetables processing and preservation, vocational courses have lot of scope in the district.

The yield of food-grain crops can be substantially increased by using improved seeds, application of adequate doses of fertilizers and adoption of plant protection measures. Seed production of hybrid jowar, cotton, tur, mug, groundnut and soyabean is the demand of the district and hence it requires skilled manpower for seed production.

More than 60 percent of total cropped area is dry land in the district. At present only 20 percent of the cropped area is irrigated by different means. Irrigated area will be increased to 40 percent in future.

Soil Conservation is the basic of any programme of improving agricultural production. Since agriculture is carried-out on varying types of land, it is imperative that the productivity of these land should not only be maintained but also improved by various methods of soil conservation and water management.

Considering above justification agro-climatic condition and crop development of agriculture in Nagpur district and also taking into consideration the opinion of progressive cultivators, knowledgeable persons and valuable suggestions of the members of sub/committees, the following courses are identified in the field of agriculture.

- 1) Fruit, food and vegetables processing and preservation.
- 2) Seed Production Technology.
- 3) Farm Supervisor/plant protection-Technique & Management.
(600.20 and 600.10) .

- 4) Crop Science,
- 5) Horticulture Supervisor (602.10 and 610.30)
- 6) Plasticulture,
- 7) Agro-Science Centre Supervisor/Agriculture Implements Production and repairs.
- 8) Dry Land Farming.
- 9) Soil Conservation and Water Management.

(Note :- Figures in the bracket are National classification of occupation codes as per compendium prepared by the Directorate General of Employment & Training, New Delhi.)

4.11 ANIMAL HUSBANDRY & DAIRY DEVELOPMENT :

As per Live-stock Census conducted in 1982, total Live-stock in the district was 1070037 and poultry 377015. However, looking at the workers engaged in this sector as per population census, there is a decreasing trend of the workers engaged. The main reason for this is that animal husbandry provides supplementary vocation and can not by itself provide full-fledged vocations unless organised on substantial large scale. This sector is important from the point of view of supplementary income in the persons engaged in other occupations. The opportunity in this occupation is vitally linked with necessary veterinary infrastructure particularly animal health cover available in the district, supply of nutrient fodder and feed for healthy growth of live-stock. Government of Maharashtra through media of five years plan scheme is attempting to give boost to this supplementary occupation for agriculture and landless labourers. Systematic attempt is being made in organising dairy-societies, collection and distribution of milk, improvement in breed and rearing live-stock and providing health cover and other incentives.

Dairy Development Department has organised 199 dairy societies upto 87-88 with 13017 members in the district. This

department has fixed target of 275 dairy societies with 22,000 members upto 1990-91. It collects milk on 14 different milk routes. Govt. Milk Scheme, Nagpur has its present storing capacity of 50,000 liters milk per day and it plans to increase its capacity upto 1,00,000 litres per day. There are also 3 chilling units in Saoner and Katol tahsils having the total capacity of 2500 litres per day. There is also demand for milk products like white butter, table butter, Ghee, Shrikhand, paneer, energy milk etc.

Thus, there is an ample scope for dairy development and allied activities like cross-breed and fodder development in the district.

Keeping in view, the above justification suggestions made by sub-committee, knowledgeable persons in the field of dairy development and veterinary development following vocational courses are identified :-

- 1) Animal Science & Dairying,
- 2) Live-stock Supervisor (651.10),
- 3) Poultry Manager/Supervisor(605.10),
- 4) Fodder Development and preparation of feed,
- 5) Veterinary Assistant,
- 6) Dairy Supervisor (622.10)

4.12 FORESTRY:

The forest plays an important role in the overall development of the agriculture apart from protecting land against erosion and floods which helps to establish agriculture. Forests are valuable productive resources in economy. Total area of forest in Nagpur district is 17.46 percent of the total geographical area of the district. It is nearly equal to the State average of 17.4 percent.

Major forestry is managed by the Government and Forest Development Corporation. They have got their training institutes for their required man-power like forest rangers and forest guards. However, there is some scope for the training in social forestry as the existing forest cannot meet the need of society in spite of wood and fodder, so it is necessary to take up social forestry in massive stage on all private and community waste land. Sub-committee and knowledgeable persons suggested that the development of nurseries for social forestry is essential.

Keeping in view the above recommendations, following vocational course is identified.

- 1) Nursery Supervisor (652.10).

4.13 FISHERIES :

Inland fresh water fisheries does not compete with the marine fisheries, yet it can be developed in this district. Rivers, tanks and reservoirs are the principal sources of inland water fisheries. There are 416 tanks and perennial river length of 690 Km is suitable for inland fisheries in the district. Similarly, 8486 hectares area of ponds, lakes and reservoirs is also suitable for inland fisheries. Upto 1987-88, 5791 hectares area is brought under pisci-culture. There is much scope for development of fish ponds along the side of main irrigation canal of Pench project in Parshioni, Ramtek and Mouda block. There are 60 fisheries co-operative societies with 5955 members. However, fish production was 4175 M.Tonnes during 1987-88. This production can be increased if all available water area is utilised and skilled man-power is made available.

Fisheries Development Department and the Fish Farmers Development Agencies are actively implementing the schemes of 1) production and supply of fish seeds, 2) marketing of fish through

societies and 3) providing subsidies and finance for purchasing of nylon twines and construction of wooden boats.

Keeping in view the above justification and recommendations of concerned knowledgeable persons and Sub-Committee, following vocational course is identified for the district.

1) Inland Fisheries.

4.14 CO-OPERATION :

Nagpur district has made good progress in the field of co-operation with a view to bring about a change in the socio-economic life in the district. This covers practically all aspects of economy like banking, agriculture, dairy, farming, processing of agricultural products and house-building etc. There are 3409 co-operative societies of different types in the district. Each society requires Secretary. Generally, S.S.C. passed candidates recruited for this post. For every two districts, there is a Co-operative Training Institute under Co-operative Board which imparts training to the secretaries. The training imparted by such co-operative institutes is sufficient to meet the needs of the societies. Therefore, there is no scope to introduce any additional vocational course.

4.15 MINING AND QUARRYING :

The district is rich in mineral wealth. Coal, manganese, iron-ore, lime-stone and clay deposits are the main minerals found in the district. The exploration activity involves numbers of sub-activities like location of mineral grounds, assessment of mineral potential both in terms of qualitative and quantitative data by indicating total geographical surveys, collection of survey samples, exploration by fitting, trenching and drilling collection of sub-surveys samples, analysis and testing of rocks/minerals samples in laboratory.

Production of major and minor minerals was 35.6 lakh tonnes and about 14 lakhs tonnes respectively during 1987-88 from the mines of the district and its revenue realised during 1987-88 was Rs. 2 Crores 37 lakhs.

Coal deposits is found in Kamptee and Umred coal-fields. Manganese is found in Khapa and Ramtek tahsils and iron-ore is found in Bhivapur tahsil. Lime-stone is also found in number of places in Saoner and Ramtek tahsil.

Considering the need of mining and quarrying activities in the district, following courses are identified :-

- 1) Crane Operator,
- 2) Dumper Operator,
- 3) Pump Operator,
- 4) Driller/Drilling Mechanic,
- 5) Blasting technician.

4.16 MANPOWER FORECASTING :

Since 1952, we have adopted the path of economic development through the various five year plan schemes, but no attempts have been made to forecast requirement for middle level manpower at micro-level.

In fact, effective implementation of economic planning depends upon manpower planning which draws its blood and flesh from educational planning, in absence of micro-level planning, dis-equilibrium prevailed among these factors which has led to top sided development in some sectors. Now the attempt is made to forecast manpower requirement for various courses identified above.

In order to estimate the man-power requirements two approaches, viz, (1) Programmatic and (11) Normatic are possible. Using these approaches, man-power requirements for different courses are estimated.

TABLE 4.2

MAN-POWER REQUIREMENT

Sr. No.	Name of Course	Man-power Requirement
1.	2.	3.
1.	Fruit, Food and Vegetable processing & Preservation.	- Average yield of fruit, oil-seeds, chillies & vegetables - 80,000 M.T. per year. One trained person is required for every 2000 M.T. of fruit & vegetable processing and preservation. Hence about 200 persons would be required for next five years.
2.	Seed production Technology.	- Requirement of seed production is about 7000 quintals. One trained person will be required for 350 quintal seed, hence about 100 persons will be required for next five years. [As
3.	Plant protection Technique and Management/Farm Supervisor.	- Total cultivable area is 557300 Hect. One trained person will be required for supervision of 5000 Hect. of cultivable area. Hence about 400 persons will be required for next five years.
4.	Crop Science	- Same as above.
5.	Horticulture Supervisor.	- Total area under fruit and vegetable 17600 Hect. One trained person will be required for about 200 Hect. Hence, about 400 persons will be required for next five years.
6.	Plasti-Culture	- Total area irrigated of the district is 40061 Hect. One trained person will be required for 2000 Hect. Hence, 200 persons will be required for next five years.

7. Agro-Service Centre Supervisor/ Agriculture Implements Production & Repairing. - Total cultivable area is 557300 Hect. and 1 lakh agricultural implements including 18054 electric motor pumps and 81 tractors are there in the district. One trained person will be required for 5000 Hectares. Hence, about 400 persons will be required for next five years.
8. Dry Land Farming - There are 10 farming co-operative societies. Tendency of dry land fruit farming is increasing in the district. Hence about 100 persons will be required for next five years.
9. Soil Conservation and Water Management - Total bundable area of the district is 278 hectares. 18650 hectares area is under the control of Command Area Development Authority (CADDA). This area will increase after completion of new irrigation project. Hence, about 200 persons will be required for next five years.
10. Animal Science and Dairying - There are 89979 milch animals and 199 dairy societies. One trained person will be required for 1000 milch animals. Hence, about 400 persons will be required for next five years.
11. Live-Stock Supervisor - Total live-stock is 1,070,037. One trained person will be required for 10,000 cows and buffaloes. Hence, about 500 persons will be required for next five years.
12. Poultry Supervisor - There are 377,015 birds and 10 poultry societies in the district. One trained person will be required for 10,000 birds. Hence, nearly 200 trained persons will be required for next five years.
13. Fodder Development and preparation of feed. - For every milch animal 10 Kg. fodder and feed is required per day. About 900 quintals fodder & feed is required per day in the district. Hence, about 200 persons will be required for next five years.
14. Veterinary Assistant - There are 73 veterinary hospitals, dispensaries and aid-centres in the district, and total Live-stock is 1,070,037 for every 15000 animals one veterinary doctor is required and for one doctor one veterinary assistant is required. Hence, about 400 persons will be required for next five years.

15. Nursery Supervisor - There are 300 nurseries. One supervisor will be required for five nurseries. Hence, 300 persons will be required for next five years.
16. Inland Fishery - Total area suitable for fish culture is 11905 hectares. Considering one trained person is required for 500 hectares. Hence, 100 persons will be required for next five years.
17. Crane Operator - Production of major minerals from mines is about 35.6 lakh tonnes and production of minor minerals is about 14 lakh tonnes. Each of these categories will require at least 100 persons for next five years.
18. Dumper Operator - Same as above.
19. Pump Operator - Same as above.
20. Driller/Drilling Mechanic - Same as above.
21. Blasting Technician - Same as above.

11. SECONDARY SECTOR :

This is an important sector in view of the employment and self-employment avenues. This sector covers manufacture, processing and servicing industries in the district. As per 1980 Economic Census, there were 37,148 establishments having 117,232 workers therein. As per 1981 Population Census about 5.4 percent of the total main workers were engaged in the above activities in the district.

4.17 In order to study this sector, three-fold strategy was adopted such as (1) to obtain data from primary source, two types of schedules designed, one schedule to study existing establishments and other for the prospective establishments with a view to know their requirements of man-power; (2) the view and opinions on the existing future need were collected from the knowledgeable persons and (3) secondary data available with Industries department and various financial institutes in the district also studied.

Briefly, the methodology adopted for survey was as follows:-

- 1) Selection of establishments through the Inspector of Factories, District Industries Centre and the Director of Employment.
- 2) Assessing industry-wise shortages of occupations,
- 3) Ascertaining Employer's views-
 - a) Selection preference in employment,
 - b) Adequacy of existing training programmes,
 - c) Gaps in practical aspects and training programmes observed by employers,
 - d) Demands for occupations for various categories of industries,
- 4) Views of knowledgeable persons.
- 5) Views of Ad-hoc committee of officers under the Chairmanship of Collector.

4.18 As it is well-known that "District Industries Centre" in each district working under the Directorate of Industries, is mainly responsible for the development of small scale industries. This District Industries Centre maintains lists of permanent establishments as well as provisional establishments, that is establishments which will come up in future. This list was cross-checked with the list available with Factory Inspector to avoid duplication of industry for survey work.

All the establishments were classified as per National Classification of Industries and further analysed tahsil-wise.

In order to examine courses emerged from above study, a Sub-Committee under Chairmanship of the President, Vidarbha Industries Association, Nagpur was formed. He got the expertise from various industries prominent in the district and new up-coming industries also. Secondary data available with DIC, MIDC, MSSIDC, MSFC, SICUM and other catalytic agents was used in arriving at the decision.

various courses and man-power required. While studying this sector, it was experienced that the employers generally do not disclose to what type of occupations with their educational qualifications would be needed by them in near future. Also they do not reveal their expansion plans as it depends upon the Govt. policy regarding taxation, incentives, supply of raw material, export and import etc. Thus the findings of the survey will best indicate the broad possibilities.

4.19 EXISTING INDUSTRIAL STATUS :

Industrial development of the district is mostly confined to urban areas of the district. Out of 56 large and medium scale industries in the district, 53 industries are located at Nagpur only. Also out of 3833 small scale industries 92 percent SSI units are concentrated in Nagpur tahsil. Rural area is not much industrialised and depend mostly on agriculture. The non agricultural employment in rural area is however, in traditional crafts with locally available raw material and by and large for local demands. Traditional crafts are conducted on house-hold and cottage industry and included handloom weaving, oil-ghanies, tanning and leather goods manufacturing, pottery, bricks manufacturing cane and bamboo work, dyeing and printing etc. Nagpur handloom saris are famous and have good market all over the State. The well known silk-bounded cloth is exported to various parts of the country.

The large and medium scale units comprising of Cotton textile, metal and alloy products, paper-mill, antibiotics and pharmaceuticals, plastic products, machine parts, electronic instruments manufacturing etc.

Amongst small scale industries major industries are saw mills, printing press, manufacture of house hold coal, manufacture

of bricks, metal fabrication, manufacture of wood product and furniture, bakery and confectionary, manufacture of textile products, metal and alloy industries, paper and paper products and refrigeration and air-conditioning parts and components.

An Electronics Zone is being developed by M.I.D.C. Nagpur. There are some electronics industrial units. Prominent among them are (1) Radio Communication project by MELIKUN, and (2) Acharya Electronics. Apart from this, there are number of small scale units having wide range of highly sophisticated testing instruments. The Test and Development Centre financed by Electronics Commission housed at Visvesvaraya Regional College of Engineering, Nagpur with sophisticated testing and measuring instruments. Apart from this testing facility of specialised nature is available at National Environmental Engineering and Research Institute and Mineral Exploration Corporation Ltd., Nagpur.

(1) Existing status of large and medium scale industries

as on 1-12-88.

Sr. No.	Category	No. of units	Employment
1.	Agro-based	7	14,396
2.	Forest based	5	841
3.	Mineral based	-	-
4.	Food Industries	6	2,474
5.	Engineering & Allied	19	6,071
6.	Chemical	2	139
7.	Animal Husbandry	-	-
8.	Building Material	-	-
9.	Other Industries	17	7,847
Total		56	31,768

2) Existing Status of Small Scale Industries as on 31-3-88.

Sr. No.	Category	No. of Units	Employment
1.	Agro based	267	4,737
2.	Forest based	351	5,052
3.	Mineral based	50	1,884
4.	Food Industry	184	4,152
5.	Engineering & Allied	1,505	29,806
6.	Chemical	617	11,124
7.	Animal Husbandry	26	696
8.	Building Material	144	4,148
9.	Other Industries	689	12,818
Total		3,833	74,417

3) Existing Status of Cottage & Village Industry as on 31-3-88.

Sr. No.	Category	No. of Units	Employment
1.	Agro based	83	185
2.	Forest based	455	980
3.	Chemical	5	24
4.	Animal Husbandry	201	474
5.	Other Industries	66	152
Total		810	1,815

4) Tahsil-wise details of establishments having less than 10 and more than 10 employees (as on March-66).

Sr. No.	Tahsil	No. of Establishments	
		Less than 10 workers	More than 10 workers
1.	Nagpur	2,716	728
2.	Kalmeshwar	34	21
3.	Kamptee	48	26
4.	Saoner	33	8
5.	Katol	16	4
6.	Kuhi	9	-
7.	Umred	35	7
8.	Ramtek	35	14
9.	Bhivapur	6	5
10.	Parshion	18	12
11.	Mouda	7	13
12.	Narkhed	4	1
13.	Hingana	6	11

5. The detail industrial pattern of the district is as follows. It includes large, medium and small scale industries.

Sr. No.	NIC Code	Industry Category	No. of units.
1.	2.	3.	4.
1.	100 to 199	Mining	30
2.	200	Processing & Preservation of meat	2
3.	201	Manufacture of dairy product	16
4.	202	Canning & Preservation of fruit & vegetables	15
5.	204	Dal Mill	70
6.	205 & 209	Manufacture of Bakery & Confectionery product.	81

1.	2.	3.	4.
7.	206	Sugar Factory	2
8.	211	Oil Mill	37
9.	212	Tea Processing	1
10.	215	Manufacture of Ice	18
11.	216	Manufacture of animal food	8
12.	220 to 223	Manufacture of Spirit, liquor, Country liquor and wine.	10
13.	224	Manufacture of Soft Drinks	26
14.	226 to 229	Manufacture of bidi & tobacco	6
15.	230	Cotton Ginning and Pressing	6
16.	231 to 239	Cotton Spinning, Dyeing, bleaching and weaving.	50
17.	240 to 249	Manufacture of wool, silk & synthetic fibre.	35
18.	260 to 269	Mnufacture of textile products	74
19.	270	Manufacture of Plywood	1
20.	271	Saw Mills	505
21.	272 to 279	Manufacture of wood product and furniture	75
22.	280 to 283	Manufacture of paper and paper product.	74
23.	284 to 286	Printing Press	315
24.	287	Engraving, etching & Block-making.	14
25.	288	Book binding	19
26.	290 to 299	Leather industries	26
27.	300 to 307	Manufacture of Rubber, Plastic, Petroleum & Coal.	325
28.	310	Manufacture of Chemicals	37
29.	311	Manufacture of fertilizer & Pesticides.	13
30.	312	Mfr. of paints & varnishes	28
31.	313	Mfr. of drugs & medicines	36

1.	2.	3.	4.
32.	314 & 315	Manufacture of Soap, tooth-paste, Shampoo and edible oil.	66
33.	320 to 329	Mfr. of non-metallic mineral (Bricks, cement, lime & glass)	268
34.	330 to 339	Metal and Alloy industries	203
35.	340 to 349	Metal fabrication products and parts.	1087
36.	350	Manufacture of Agriculture-machinery & equipments.	20
37.	351 to 357	Manufacture of Machine tools	8
38.	352 to 354	Mfr. of Machinery	55
39.	355	Mfr. of Refrigerator, Air-conditioner parts & components.	64
40.	360 to 363	Mfr. of Elect. Machinery, Apparatus & appliances.	74
41.	364	Mfr. of Radio, T.V. & Transistor	18
42.	366 & 367	Mfr. of Electronic Components, & Control instruments.	8
43.	370 to 379	Mfr. of Transport equipment parts	32
44.	380	Mfr. of medical, surgical and Scientific equipments.	11
45.	387	Manufacture of Stationery articles	17
46.	410	Domestic gas filling and distribution.	3
Total			3889

4.20 PROSPECTIVE INDUSTRIES :

Prospective establishments really indicate emerging occupations. Sugar, auto tyre & tubes, cement, cermaic, casting and fruit (orange) processing industries are registered and likely to be started in the district.

Provisional units registered as on 31-3-88.

Sr. No.	Category	No. of units
1.	Agro based	438
2.	Forest based	491
3.	Mineral based	264
4.	Food Industries	508
5.	Engineering and Allied	3,296
6.	Chemical	1,237
7.	Animal Husbandry	90
8.	Building material	464
9.	Other Industries	1,364

4.21 VIEWS OF EMPLOYERS :

The views of employers on various items were collected in the prescribed schedules. They are summarised below for information.

- (a) Most of the employers told that mode of recruitment upto supervisory cadres was by promotional channel. The recruitment to supervisory cadre was mostly by direct recruitment.
- (b) The employers, at a large expressed satisfaction about the adequacy of training institutes as I.T.I. for skilled workers. However, the employers opined the necessity of improvement/additions into the trades to cope-up the demand emerging out of developing technology. It was also reiterated the need of training for the jobs like Accountant, Salesman, Personnel Assistant, Receptionist etc. as management technique is also going to change.

(c) The opinion of the employers on man-power shortages, experience was also sought. The employers had experienced the shortages of man-power in respect of following occupations.

TABLE 4.3

Industry-wise Shortages in Occupations

Sr. No.	Industry	Shortages in Occupations
1.	Metal Product & parts	i) Forging Expert, ii) Cold Rolling & Hot Rolling Operator. iii) Compressor Operator, iv) Electroplator, v) Heating Furnace Operator & Maintenance Mechanic, vi) Galvanising Mechanic.
2.	Machinery, Machine Tools & Parts	i) Gear Hubbing Technician, ii) Medical Equipment Repairer.
3.	Electric and Electronics Products	i) Repairer of Electric and Electronics products. ii) Service Technician, iii) Salesman.
4.	Paper, Paper Products and printing	i) Photo-litho Operator, ii) Camera Operator and Plate-maker, iii) Mono Operator, iv) Dark-room Worker, v) Colour Photographer, vi) Rulling and Folding Machine Operator.
5.	Chemical and Chemical Products	i) Photo Composer, ii) Chemical Plant-Maintenance Supervisor, iii) Pharmaceutical Machine Operator, iv) Medicine Testing Expert.
6.	Textile and Textile Products.	i) Dress Maker & Designer ii) Calico Printer.
7.	Non-metallic Mineral Product	i) Dumper Operator, ii) Crane Operator.
8.	Rubber, Plastic and Petroleum Product.	i) Tyre Remoulding Mechanic, ii) Plastic Mould Maker, iii) Ceramic Machine Operator.

- | | |
|-------------|---|
| 3. Chemical | 1) Chemical Plant Operator, |
| 4. Plastic | 1) Plastic Processing Technique,
2) Plastic Mould-maker,
3) Fibre Glass Technician. |
-

4.23 RECOMMENDATIONS FOR VOCATIONAL COURSES :

As indicated previously, survey could not pin-point the needs of vocations and level of competencies in a precise manner. The courses suggested are either for isolated vocations or of a highly qualified character and prima-facie terminal in nature. Still from available data and discussions with various authorities following courses can be introduced to meet man-power requirement.

Sr. No.	Industry	Courses recommended
1.	Engineering	1) Mechanical Technology, 2) Maintenance and Repair of Medical Laboratory-Equipments. 3) Forging Expert, 4) Gear Hobbing Technician, 5) Mining Machine Maintenance and Repair.
2.	Electrical and Electronics.	1) Electronics Technology, 2) Maintenance & Repair of Electric Domestic Appliances, 3) Radio & T.V. Mechanic, 4) Computer Techniques, 5) Maintenance and Repair of Pump & Electric Motor, 6) Electro Plator.
3.	Chemical	1) Galvanising Mechanic, 2) Chemical Plant Operator, 3) Photo Litho Operator,
4.	Plastic	1) Plastic Mould Maker, 2) Plastic Processing Technician 3) Fibre Glass Technician.
5.	Textile	1) Knitting with Machine, 2) Dress Making & Designing, 3) Calico Printer.

MAN-POWER REQUIREMENT :

Considering the flow of various project and industries in near future in the district, the probable man-power requirement for next five years will be as below.

1) Engineering -

As for basic installation and development of all types of industries, the engineering industry is mainly responsible. There are 1505 small-scale and 19 large and medium scale industries in metal fabrication, product and parts. Also 3,296 SSI are provisionally registered in engineering and allied sector, and 3 large scale units are likely to be started soon in the district.

Considering above potential engineering technicians required for next five years in this sector in the district will be as follows :-

1) Mechanical Technology -	500
2) Maintenance & Repairs - of Medical Laboratory - equipments.	200
3) Forging Expert -	100
4) Gear Hobbing Technician	100
5) Mining Machine - Maintenance and Repair.	100

2) Electrical and Electronics -

There are more than 100 small scale industries in this sector in the district. Electronics zone is declared at Nagpur. There is increasing demand of sales and service-man in this sector. The use of computer and electronics technology is rapidly increasing in every field of activity. The use of electric domestic appliances, T.V. and video is also increasing. Moreover, the

All India Radio station and T.V. relay station functioning in the district will also require skilled technicians.

Considering above potential, electrical and electronics technicians required for next five years in this sector in the district is as follows :-

- 1) Electronics Technology -1000,
- 2) Maintenance & Repairs -1000,
of Electric Domestic
Appliances.
- 3) Radio & T.V. Mechanic - 500
- 4) Computer Techniques - 200
- 5) Maintenance & Repair of- 500
Pump and Electric Motor
- 6) Electroplator - 100

3) Chemical and Plastic -

There are 2 large and medium scale and 617 small scale units in this sector in the district. Steel is being fastly replaced by plastic and hence there is good scope for plastic industry. There are 1237 provisionally registered small scale industries in this sector in the district.

Considering above potential technicians required for next five years in this sector in the district will be as follows :-

- 1) Galvanising Mechanic - 100
- 2) Chemical Plant Operator - 100
- 3) Photo Litho Operator - 100
- 4) Plastic Mould Maker - 200
- 5) Plastic Processing Technician- 200
- 6) Fibre Glass Technician - 200

4) Textile -

There are 165 small scale units in this sector in the district. Nagpur handloom saries are famous and have a good market all over the State. The well-known silk bounded cloth of

Nagpur is sold in various parts of the country. Empress Mill and Model Mill located in Nagpur city are the largest composite mills employing more than 12000 workers. Besides, there are six large scale cotton-ginning and pressing units knitting, printing and dress making have sufficient scope in the district.

Considering above potential technicians required for next five years in this sector in the district will be as follows :-

- 1) Knitting with machine - 500
- 2) Dress-making & Designining - 500
- 3) Calico-printer - 500

4.24 In Nagpur district, there are 5 Government and 2 private Industrial Training Institutes having 2012 and 645 in-take capacity respectively. The trades introduced in I.T.Is. are as follows.

A) One Year duration :

- (1) Welder, (2) Moulder, (3) Carpenter, (4) Mech.Diesel,
- (5) Mech. Tractor, (6) Plumber, (7) Sheet-metal Worker,
- (8) Data Preparation and Computer Software, (9) Preservation of fruits and vegetables, (10) Dress-Making, (11) Book-binding,
- (12) Letter Press Machine Minder, (13) Hand Compositor,
- (14) Stenography (English), (15) Stenography (Marathi),
- (16) Secretarial Practice.

B) Two years duration :

- (1) Electrician, (2) Mech.(Instrument), (3) Draughtsman(civil)
- (4) Draughtsman(Mech.) (5) Surveyor, (6) Mech. Radio & T.V.
- (7) Mech. Refrigeration & Air Conditioning, (8) Mech. Grinder,
- (9) Tool and Die Maker, (10) Electronics, (11) Fitter
- (12) Turner, (13) Watch & Clock Repairer, (14) Mech. Motor Vehicle,
- (15) Building Construction, (16) Pattern Maker,
- (17) Wireman, (18) Painter(General), (19) Machinist.

These courses are of terminal nature. The SSC and non-SSC students are admitted in these courses. Due to proposed industrial development in the district and also the vacancies arising out of death/retirement/migration of the skilled workers in the existing industries, 5 to 10 percent of vacancies in the total strength of workers arises every year. Hence these courses need to be continued in the Industrial Training Institutes in the district.

In addition to above courses in I.T.I., following courses to meet the demand of existing and prospective industries in the district, need to be started.

- (1) Plastic Processing Operator,
- (2) Wireless Operator,
- (3) Mech. Millwright Maintenance,
- (4) Knitting with Machine,
- (5) Electroplator,
- (6) Auto-Electrician,
- (7) Farm Mechanic.

III. TERTIARY SECTOR :

4.25 TRADE AND COMMERCE :

Nagpur is one of the biggest districts of the State which have 14 tahsils having 16 urban towns. From the point of view of Trade and Commerce, towns like Nagpur, Katol, Saoner, Ramtek and Umred are more important. The chief article of export from the

district contain cotton bales, gas cylinders, steel pipes, hand-loom saries and cloth, mineral like coal and manganese and oranges. Against this district imports steel plates, cotton yarn, rice, machinery, plastic material, salt, sugar and kerosene oil etc. Nagpur city is a big market place for clothe, ready-made wears, food-grain, oranges and machinery parts. It is biggest city of Vidarbha region and recently declared as second capital of Maharashtra.

There are 220 branches of commercial banks in Nagpur district, out of which 121 branches are in Nagpur city and 99 branches are in semi-urban and rural area.

All sorts of organisations, big or small have to maintain record, correspond with public and private parties. For this purpose, commercial organisations required trained persons like Accountants, Office Assistants, Stenographers & typists, Salesman, Receptionists etc. are required under Trade and Commerce. Hence, the vocational courses suggested and the probable man power requirement for next five years in the district would be as follows-

- | | | |
|--------------------------------|---|-----|
| (1) Office Management | - | 200 |
| (2) Stenography & Typewriting | - | 500 |
| (3) Accounting & Auditing | - | 500 |
| (4) Marketing & Salesmanship | - | 500 |
| (5) Purchasing & Store-keeping | - | 200 |
| (6) Secretarial Practice | - | 200 |

4.26 TRANSPORT :

Transport sector is growing very fast and it is likely that this growth rate will be maintained due to the importance of industries. Nagpur district have the facility of Air travel and railways. Total road length in the district is 6769 km. out of which National Highways and State Highways road length is 1066 Km. There are 128,319 two-wheelers and 30528 four-wheelers, out of which 9938 are trucks and lorries, 1308 tractors and 11,967 cars and

jeeps. Vehicles from neighbouring district and State ply through this district. Facility of vehicle repairs is very poor except well-organised workshops of P.W.D. and State Transport Corporation located at Nagpur. The Sub-Committee stressed the need of well organised vehicle repairing workshops in Nagpur and other important places in the district. This will require trained man power, therefore, courses like Auto Engineering Technician have scope in the district.

Considering the need and available infrastructure in the district, the following courses have been identified. The man-power requirement for the next five years will be as follows-

- | | |
|-------------------------------------|-------|
| (1) Auto Engineering Technician | - 500 |
| (2) Body Building(vehicle) Mechanic | - 200 |
| (3) Heavy Vehicle Driver | - 500 |
| (4) Tyre Remoulding & Vulcanising | - 500 |
| (5) Transport Management | - 200 |

4.27 INSURANCE :

There is a scope for "General Insurance" course in this sector in the district. About 20 persons can opt self-employment in this sector. However, the course should be designed in accordance with the General Insurance Companies requirements. The man-power requirement for the next five years in this sector will be about 500 persons.

4.28 CONSTRUCTION :

The Government of Maharashtra has accepted the ideology of 'District Planning' since fifth five year plan. The District Planning and Development Council consisting of Member of Parliament, M.L.A., and M.L.C. and representatives of different sectors of economy with the Collector of district as Member-Secretary. The responsibility to prepare the annual district plans on the

basis of guide-lines issued by Government rest with the District Planning & Development Councils. There are large number of Constitutional activities in the district level scheme such as major and medium irrigation projects constructions and repairs of roads, housing, construction of office building, staff quarters etc. as included in the various development scheme under implementation in the district. This sector was discussed with the knowledgeable persons but not definite indication of indirect employment could be obtained. However, it is suggested that building maintenance activity is not organised and if man-power is trained for this activity, it will certainly be useful for the society. Hence, a composite course containing building repair, colouring and interior decoration will be useful. Also in rural areas, courses like Rural Engineering Technology will be useful.

Considering the need and available infra-structure in the district, the following courses are suggested and the man-power requirement for the next five years will be as follows.-

- | | |
|----------------------------------|-------|
| (1) Building Maintenance | - 500 |
| (2) Rural Engineering Technology | - 500 |

4.29 MEDICAL & PUBLIC HEALTH :

Health is cherished goal. It is an important input for development of man and thereby social and economic development of the area. An adequate and equitable health care system stimulates development of improving human productivities, that is why, investment in health is sometimes called an investment in human capital. Since last 30 years or so we have adopted a path of development. In order to ensure effective infra-structure, efforts are being made to strength the medical man-power through medical, dental, nursing and other para-medical education. Adequate supply of

trained man-power is one of the important parameter of economic development. Maharashtra State has made significant progress in providing health services since last 15 years. As a result of this general health standard has improved, but at the same time, it is well recognised fact that the urban population, an avowed objective is to provide minimum medical care to all by the year 2000 A.D. The needs and necessities and special requirements of rural population have to be kept in view. The Government of Maharashtra has recognised the importance of para-medical personnel which has vital link between professional experts at one end and patients at the other end.

In Nagpur district, there are 23 hospitals, 130 dispensaries, 23 maternity homes and 41 primary health centres. Medical College Hospital is a well-known hospital in Maharashtra. Beside this, there is another Indira Gandhi Medical College & Hospital in the city. Public Health Institute is also an important feature of the district. While discussing with the concerned persons, it was pointed out that considering number of private hospital and dispensaries trained man-power in the field of maintenance and repair of hospital equipments is the need of the district.

Considering the need and available infra-structure in the district, the following para-medical courses and the man-power requirement for the next five years identified.

(1) Medical Laboratory Technician	-	200
(2) X-ray Technician	-	100
(3) Ophthalmic Technician	-	100
(4) Creach & Pre-school Management	-	500
(5) Multi-purpose Health Workers (Male/Female)	-	1000
(6) Dental Hygenist	-	100
(7) Medicine Testing Expert	-	200

4.30 PHARMACY :

There are number of medical shops in the district and 10 percent increase every year is to be expected. At present, the course of Diploma in Pharmacy is being conducted in private institutes. Still there is a potential for Pharmacist course and man-power requirement would be about 200 for next five years.

4.31 HOTELS AND RESTAURANTS :

There are about 3515 restaurants in the district and every year number of Hotels and restaurants increases. Big industries and establishments have their own canteen and mess. There is no trained man-power available in the district in this sector. Hence following courses have scope in the district. Courses and man-power requirement for next five years will be as follows.

- | | |
|--------------------------------------|-------|
| (1) Catering & Restaurant Management | - 500 |
| (2) Bakery & Confectionery | - 500 |
| (3) Institutional House-keeping | - 200 |
| (4) Cookery | - 200 |
| (5) Receptionist | - 200 |
| (6) House & Interior Decoration | - 200 |
| (7) Beauty Technician | - 200 |

4.32 TRAVEL AND TOURISM :

Ramtek, Adasa village, Dhapewada, Khinsi, Totaladoh, Koradi are the places of travel and tourism in the district. No trained man-power is available in this sector. Hence a course on Travel and Tourism is the need of the district. About 200 persons will be required for next five years in this sector.

4.33 IDENTIFICATION OF LOCATIONS AND EXISTING FACILITIES

AVAILABLE WITH INSTITUTIONS :

Since 1978-79, few vocational subjects were introduced in the Junior Colleges and Higher Secondary Schools in the district. Some infrastructural facilities has been created by these institutes. The information regarding infrastructure facilities available with the institutes and other facilities available in the vicinity of the institute is given in the Table No. 4.4.

The choice of running vocational course/s rest with the management of the institute and hence no specific course for the institute can be suggested. However, the locations of courses can be finalised by discussions with the institute and keeping in view the existing infrastructural facilities available.

TABLE 4.4

Infrastructural facilities available with Institute
and around their vicinity

ITEM 1: Existing facilities and vocational courses introduced.

Sr. No.	Name of Institution	Faculties	Division		Vocational courses introduced
			XI	XII	
1.	2.	3.	4.	5.	6.
NAGPUR TAHSIL					
1.	Saibaba Arts & Commerce Jr. College, Sneha Nagar, Wardha-Road, Nagpur.	Arts Commerce	1 1	1 1	
2.	Arts & Commerce Jr. College, Ganesh Peth Nagpur.	Arts Commerce	1 3	1 3	
3.	Arts & Commerce Jr. College, Ganesh Peth, Nagpur. (Night)	Arts Commerce	1 1	1 1	
4.	Santaji Arts & Commerce Jr. College, Wardha Road, Nagpur.	Arts Commerce	1 1	1 1	
5.	Kamala Nehru Jr. College, Sakkandara Road, Nagpur.	Arts Commerce	2 2	2 2	

1.	2.	3.	4.	5.	6.
6.	Dr. Ambedkar Jr. College, Dikshabhumi, Nagpur.	Arts Science Commerce	1 3 2	1 3 2	
7.	Dhanwate Jr. College Congress Nagar, Nagpur.	Arts Commerce	3 5	2 5	Bi-focal ----- 1)Mktg.& S'manship 2) Small Ind. & Self Employment.
8.	Hislop College, Civil Lines, Nagpur.	Arts Science Commerce	1 3 5	1 2 4	Bi-focal ----- 1)Electronics 2)Fresh Water Fish Culture.
9.	Womens Jr. College, Nandanvan, Nagpur.	Arts	2	2	
10.	L.A.D. Jr. College, Ambazari Road, Nagpur.	Arts Science Commerce	3 2 3	3 2 3	
11.	Vimens College of Commerce, Gita Mandir Nagpur.	Arts Commerce	1 2	1 2	
12.	C.P. & Bersar Jr. College, Tulsibag Nagpur.	Arts Commerce	2 4	2 4	Bi-focal ----- 1)Banking 2)Mktg.& S'manship 3)Insurance 4)Office Mngmt.
13.	Shri Mathuradas Mohata Science Jr. College, Umred Road, Nagpur.	Science	4	4	
14.	P.W.S. Jr. College, Indora Chowki, Nagpur.	Arts Commerce	4 4	4 4	
15.	G.S. Jr. College, Amravati Road, Nagpur.	Commerce	6	6	Bi-focal ----- 1)Banking 2)Mktg&S'manship 3)Insurance
16.	Smt. Binzani Mahila Jr. College, Mahal, Nagpur.	Arts	5	5	
17.	Sindhu Jr. College, Pachpaoli, Nagpur.	Science Commerce	3 3	3 3	
18.	Shri. Binzani Nagar Jr. College, Umred Road, Nagpur.	Arts Commerce	1 2	1 2	
19.	Shri Ramchandra Mokhane Jr. College, Ring Road, Swavalambi Nagar, Nagpur.	Commerce	1	1	

1.	2.	3.	4.	5.	6.
20.	S.F.S. Jr. College, Seminari Hill, Nagpur.	Science	3	3	Bi-focal ----- 1)Elect.Maint.
21.	Shri Shivaji Jr. College, Congress Nagar, Nagpur.	Science	3	3	Bi-focal ----- 1)Electronics 2)Fresh Water- Fish Culture.
22.	V.M.V. College, Wardhaman Nagar, Nagpur.	Arts Science Commerce	2 1 5	2 1 5	
23.	Dharampeth Jr. College, Ambazari Nagpur.	Arts Science Commerce	3 5 4	3 5 4	Bi-focal ----- 1)Banking 2)Mktg. &S'manship 3)Insurance 4)Electronics 5)Elect.-Maint. M.C.V.C. ----- 1)M. & R.E.D.A. 2)Electronics 3)Inland Fishery.
24.	Dr.Punjabrao Deshmukh Memorial (Night)College, Cotton Market, Nagpur.	Commerce	1	1	
25.	Anjuman Jr.College, Sadar, Nagpur.	Science	2	2 ^o	Bi-focal ----- 1) Electronics, 2) Fresh Water- Fish Culture, 3) Scooter & Motor- cycle Servicing. M.C.V.C. ----- 1) Electronics, 2) Mech.Technology, 3) M. & R.E.D.A.
26.	Annapurnabai Deshmukh- Jr. College, Lakadganj, Nagpur.	Arts	1	1	
27.	Abhinandan Jr. - College, Umred Road, Nagpur.	Arts	1	1	
28.	Indira Gandhi Girls- Jr. College, Jawahan- Nagar, Nagpur.	Arts Commerce	1 1	1 -	
29.	Islamiya Jr.College, Mominpura, Nagpur.	Science	1	1	

1.	2.	3.	4.	5.	6.
30.	Umija Shankar Naran- ganji Jr, College, Lakadganj, Nagpur.	Science	1	1	
31.	Kurvej New Model Jr. College, Shraddhanand Peth, Nagpur.	Science Commerce	1 1	1 1	
32.	Kurvej New Model Jr. College, Sitabuldi, Nagpur.	Commerce	1	1	
33.	Gajanan Jr. College, Juna Subhedar Layout, Nagpur.	Commerce	1	1	
34.	Arts & Commerce Jr. College, Dawalamethi, Nagpur.	Arts	1	1	
35.	Gurunanak Jr. College, Bezonbag, Nagpur.	Science	1	1	Bi-focal ----- 1) Electronics M.C.V.C. ----- 1) Electronics Tech. ↓ 2) A/c & Auditing 3) Maint. & Repairs- of Elect. Domestic Appliances.
36.	Gopabai (Night) Jr. College, Lakadganj, Nagpur.	Arts	1	1	
37.	Chhatrapati Jr. College, Chitanvispura, Nagpur.	Commerce	1	1	
38.	Jaibai Chaudhari Jr. College, New Colony Sadar, Nagpur.	Arts	1	1	
39.	Pakawasa Gujrathi Girls Jr. College, (Itwari) Nagpur.	Science	1	1	
40.	Kidwai Jr. College, Lashkaribag, Nagpur.	Arts	1	1	
41.	Pratibha High School, Khairipura, Nagpur.	Commerce	1	1	
42.	Patwardhan Jr. College, Sitabuldi, Nagpur.	Science	1	1	Bi-focal ----- 1) Elect. Maint.
43.	Babananak Jr. College, Garobs Maidan, Nagpur.	Science	1	1	*
44.	Bhide Girls Jr. College, Sitabuldi, Nagpur.	Science Commerce	2 1	2 1	

1.	2.	3.	4.	5.	6.
45.	Bharat Mahila Jr. College, Mahal, Nagpur.	Arts	1	1	
46.	Bharat Night Jr,College, Bezanbag, Nagpur.	Arts Commerce	1 1	1 1	
47.	Bhartiya Krishi Jr. College, Zingabai Takli, Nagpur.	Commerce	1	1	
48.	Model Jr. College, Station Road, Nagpur.	Science Commerce	1 3	1 2	
49.	M.A.K. Azad Jr.College, Katol Road, Nagpur.	Arts	1	1	
50.	Tidke Jr. Collge, Katol Road, Nagpur.	Science Commerce	1 1	1 1	
51.	Dinanath Jr. College, Dhantoli, Nagpur.	Science	1	1	Bi-focal ----- 1)Electronics M.C.V.C. ----- 1)Electronics 2)Mktg & S'manship 3) Institutional House keeping.
52.	Dayanand Arya Kanya Jr. College, Jaripataka, Nagpur.	Arts Commerce	1 1	1 1	
53.	D.D. Nagar Jr. College, Mahal, Nagpur.	Arts Science Commerce	1 1 1	1 1 1	
54.	Nagpur Night Jr.College, Auditya Darwaja, Mahal, Nagpur.	Arts Commerce	1 2	1 2	
55.	Narendra Night Jr. College, Siraspeth, Nagpur.	Arts	1	1	
56.	Navpratibha Girls Jr. College, Siraspeth, Nagpur.	Arts Commerce	1 1	1 1	
57.	Navpratibha Jr.College, Mirchibazar, Nagpur.	Commerce	2	2	
58.	New English Jr.College, Congress Nagar, Nagpur.	Commerce	1	1	

1.	2.	3.	4.	5.	6.
59.	New English Jr.College, Mahal, Nagpur.	Science 2 Commerce 2	2 2	2 2	Bi-focal ----- 1)Electronics M.C.V.C. ----- 1)Electronics 2)M.R.E.D.A. 3)A/c & Auditing
60.	Nutan Bharat Jr.College, Abhyankar Nagar, Nagpur.	Science	1	1	
61.	Dharampeth Jr. College, Ambazari Road, Nagpur.	Science	1	1	Bi-focal ----- 1)Electronics M.C.V.C. ----- 1)Electronics 2)M.R.E.D.A. 3)A/c & Auditing
62.	Rashtriya Jr. College, Hanuman Nagar, Nagpur.	Commerce	1	1	
63.	Ramnagar Bharat Jr.College, Ramnagar, Nagpur.	Arts Science	1 1	1 1	Bi-focal ----- 1)Elect. Maint. 2)Mktg & S'manship M.C.V.C. ----- 1)Electronics 2)A/c & Auditing 3)Bakery & Confectionary.
64.	Lokanchi Shala Jr.College, Siraspeth, Nagpur.	Arts Science	1 1	1 1	
65.	Navnath Jr. College, Juna Subhedar Layout, Nagpur.	Arts	1	1	
66.	Lokmanya Night Jr.College, Gadikhana, Nagpur.	Commerce	1	1	
67.	Vidarbha Buniyadi Jr. College, Omnagar, Nagpur.	Science Commerce	1 1	1 1	
68.	Vidarbha Night Jr. College, Itwara Bazar, Nagpur.	Arts Commerce	1 1	1 1	
69.	Vinayakrao Deshmukh Jr. College, Lakadganj, Nagpur.	Science	1	1	
70.	Vanita Vikas Jr. College, Ganesh Nagar, Nagpur.	Arts Commerce	1 1	1 1	
71.	Vasant Prakash Urdu Jr. College, Moninpura Near Hafiz Bakery, Nagpur.	Arts	1	1	

1.	2.	3.	4.	5.	6.
72.	Shivaji Night Jr. College Sevasadan Building, Gandhibag, Nagpur.	Arts	2	2	
73.	St. Joseph's Jr. College, Mohan Nagar, Nagpur.	Science	1	1	
74.	S.F.S. Jr. College, Sadar, Nagpur.	Science	1	1	
75.	Sindhi Hindi Jr. College, Panchpaoli, Nagpur.	Science	1	1	Bi-focal ----- 1) Electronics M.C.V.C. ----- 1) Electronics 2) M.R.E.D.A. 3) Auto Engg. Tech.
76.	Somalwar Jr. College, Ramdaspath, Nagpur.	Science	1	1	Bi-focal ----- 1) Electronics
77.	Somalwar Jr. College, Khamla, Nagpur.	Science	1	1	Bi-focal ----- 1) Electronics
78.	S.C.S. Girls Jr. College, Panchpaoli, Nagpur.	Arts Science Commerce	1 1 1	1 1 1	
79.	Shashtrinagar Jr. College, Shashtrinagar, Nagpur.	Commerce	1	1	
80.	Sakkardara Jr. College, Sakkardara Chowk, Nagpur.	Commerce	1	1	Bi-focal ----- 1) Electronics
81.	C.P. & Berar Jr. College, Ravinagar, Nagpur.	Science	2	2	X
82.	Sane Guruji Jr. College, Bhutya Darwaja, Nagpur.	Arts	1	1	
83.	Shri Sant Gadge Maharaj (Night) Jr. College, Gokulpeth, Nagpur.	Arts Commerce	1 1	1 1	
84.	Shrinam Swami Jr. College, Hansapuri, Nagpur.	Commerce	2	2	
85.	Shanti Niketan Jr. College, Hanuman Nagar, Nagpur.	Arts Science Commerce	1 1 1	1 1 -	
86.	Vishvanath Baba Jr. College, Wadi, Nagpur.	Arts	1	1	
87.	Hadgaon Jr. College, Ambazari Road, Nagpur.	Science	1	1	Bi-focal ----- 1) Electronics

1.	2.	3.	4.	5.	6.
88.	Nirala Jr. College, Hansa- puri, Gandhibag, Nagpur.	Commerce	1	1	
89.	Dr. Babasaheb Ambedkar Jr. College, Untkhana, Nagpur. Untakhana, Nagpur.	Science	1	1	
90.	Vinayakrao Deshmukh Jr. College, Shantinagar, Nagpur.	Arts	1	-	
91.	Ravi Jr. College, Azamshaha Layout, Nagpur.	Arts	1	1	
92.	Jawahar Night Jr. College, Sitabuldi, Nagpur.	Arts Commerce	1 2	1 -	
93.	Jai Vidarbha Jr. College, Janipataka, Nagpur.	Commerce	1	1	
94.	Sainath Night Jr. College, Mahal, Nagpur.	Arts	1	1	
Kamptee Tahsil					
95.	S.K. Porwal Jr. College, Kamptee.	Arts Science Commerce	3 2 4	3 2 4	
96.	S.M. Rabbani Jr. College, Kamptee.	Science Arts	1 -	- 1	
97.	Seth Ramnath Lohiya Jr. College, Kamptee.	Commerce	1	1	
98.	Vidya Mandir Jr. College, Kamptee.	Arts Science	1 1	1 1	
Hingana Tahsil					
99.	Sarvodaya Jr. College, Hingana.	Commerce	1	1	
Saoner Tahsil					
100.	Arts & Commerce Jr. College, Saoner.	Arts Commerce	2 2	2 2	
101.	Vinoba Jr. College, Telkamthi.	Arts	1	1	
102.	Adarsha Jr. College, Patansavangi.	Arts	1	1	
103.	Maharashtra Jr. College, Khaparkheda.	Science	1	1	

1.	2.	3.	4.	5.	6.
104.	Shankar Rao Chawhan Jr. College, Khaparkheda,	Arts	1	1	
105.	Bhalerao Jr. College, Saoner,	Science	2	2	
106.	Commerce & Arts Jr. College, Saoner,	Arts	1	1	
Kalmeshwar Tahsil					
107.	Indira Gandhi Jr. College, Kalmeshwar,	Arts Commerce	1 1	1 -	
108.	New English Jr. College, Mohapa,	Arts Science	1 1	1 1	
109.	Nagar Parishd Jr. College, Kalmeshwar,	Arts Science Commerce	1 1 1	1 1 1	
110.	Bn, Krushnanao Wankhade, Jr. College, Kohali.	Arts	1	1	
Narkhed Tahsil					
111.	Pandharinath Jr. College, Narkhed,	Arts Commerce	1 1	1 1	
112.	S.B. Nagar Prishad Jr. College Mowad,	Arts Commerce	1 1	1 1	
113.	Gurusmruti Jr. College, Bhishnwr,	Arts	1	1	
114.	Nadekar Jr. College, Narkhed,	Science	1	1	
115.	Raosahab Ingole Jr. College, Bharsingi.	Arts Commerce	1 1	1 1	
116.	B.N. Chaudhari Jr. College, Jalalkheda,	Arts Science	1 1	1 1	
117.	Arts & Commerce Jr. College, Narkhed,	Arts	1	1	
118.	Janata Jr. College, Khaingaon,	Arts	1	1	
119.	Ranilaxmibai Jr. College, Gawangaon,	Arts	1	-	

1.	2.	3.	4.	5.	6.
<u>Katol Tahsil</u>					
120.	Nabira Jr. College, Katol.	Arts Science Commerce	2 2 2	2 2 2	Bi-focal ----- 1)Electronics 2)Crop Science 3)Horticulture
121.	Govindrao Umap Jr. Yenwa.	Arts	1	1	
122.	Banarasidas Jr. College, Katol.	Science	1	1	
123.	Lakhotiya Bhutada Jr. College, Kondhali.	Arts Science Commerce	1 1 1	1 1 1	
<u>Umred Tahsil</u>					
124.	Nutan Jr. College, Umred.	Arts Commerce	1 1	1 1	
125.	Ashok Jr. College, Umred.	Arts Science	1 1	1 1	
126.	Jivan Vikas Jr. College, Umred.	Arts Science Commerce	1 2 1	1 2 1	Bi-focal ----- 1)Banking 2)Electronics
127.	Lokjivan Jr. College, Bela.	Arts	1	1	
128.	Vasantryao Naik Jr. College, Sirsi.	Arts Science	1 1	1 1	Bi-focal ----- 1)Electronics
<u>Bhivapur Tahsil</u>					
129.	Bhivapur Education Society, Jr. College, Bhivapur.	Arts Commerce	1 1	1 1	
<u>Mouda Tahsil</u>					
130.	Janata Jr. College, Mouda.	Science Commerce	1 1	1 1	
131.	Gramin Jr. College, Galva.	Arts	1	1	
132.	Zilla Parishad Jr. College, Kodamendhi.	Arts	1	1	

1.	2.	3.	4.	5.	6.
Kuhi Tahsil					
133.	Zilla Parishad Jr. College, Mandhal,	Arts	1	1	
134.	Rukhhadashram Jr. College, Kuhi,	Science Commerce	1 1	1 1	
135.	Vishvavyapi Jr. College, Wairur,	Arts	1	1	
Ramtek Tahsil					
136.	Narendra Tidke Jr. College, Ramtek,	Arts Commerce	2 1	2 1	
137.	Samarth Jr. College, Ramtek,	Science	1	1	
Parshioni Tahsil					
138.	Bharat Ratna Smt. Indira Gandhi Jr. College, Kanhan,	Arts	1	1	
139.	Harihar Jr. Collge, Parshioni,	Arts	1	1	
140.	Sarvodaya Jr. College, Parshioni,	Science	1	1	
141.	Jawahar Jr. College, Khapa,	Arts Science	2 1	2 1	

TABLE NO. 4.4 (Contd.)

ITEM 2 :- Infrastructural facilities available with the
Institute.

Sr. No.	Name of the Institute	Item	Number	Accommodation available in sq.ft. and open space available
1.	2.	3.	4.	5.
1.	Dayanand Arya Kanya Shala, Jaripatka, Nagpur.	Class Rooms Laboratory ----- Physics Chemistry Biology Other	-12 - 1 - 1 - 1 - 2	Construction 16,000 sq.ft. Construction in progress- 5000 sq.ft. Open Space - 32000 sq.ft.
2.	Shri Ramswami Vidya Mandir, Timki Road, Nagpur.	Class Room Laboratory ----- Physics Chemistry Biology Other	-10 - 1 - 1 - 1 - 2	Construction 3,900 sq.ft. Rented Construction - 4,000 sq.ft. Open space available.
3.	S.F.S. Jr. College, Sadar, Nagpur.	Class Room Laboratory ----- Physics Chemistry Biology Vocational Other	-44 - 1 - 1 - 1 - 2 - 7	Construction 1,16,970 sq.ft. Open Space 50,000 sq.ft.
4.	C.P.& Benar Jr. College, Mahal, Nagpur.	Class Room Other	-40 - 5	Construction 35,000 sq.ft. Construction in progress - 10,000 sq.ft. Open space 8,000 sq.ft.
5.	Ravi Jr. College, Ganesh Nagar, Nagpur.	Class Room Other	-16 - 1	Construction 8,000 sq.ft. Open space 46,000 sq.ft.
6.	Ram Nagar Bharat Vidyalaya Ramnagar, Nagpur.	Class Room Laboratory ----- Physics Chemistry Biology Vocational Other	-30 - 1 - 1 - 1 3 - 2	Construction 24,500 sq.ft. Construction in Progress 3,000 sq.ft. Open space- 70,000 sq.ft.
7.	Baba Nanak Jr. College, Garoba Maidan, Nagpur.	Class Room Laboratory ----- Physics Chemistry Biology Vocational Other	-25 - 1 - 1 - 1 3 - 2	Construction -13,500 sq.ft. Construction in Progress -4,000 sq.ft. Open space- 40,000 sq.ft.

1.	2.	3.	4.	5.
8.	Sindhi Hindi Jr. College, Panchpaoli, Nagpur.	Class Room -25 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Vocational 4 Other - 2		Construction- 14,000 sq.ft. Construction in Progress 5,000 sq.ft. Open space- 40,000 sq.ft.
9.	Dinanath Jr. College, Dhantoli, Nagpur.	Class Room -20 Laboratory ----- Physics - 1 Chemistry - 1 Biology - 1 Vocational- 2		Construction 30,000 sq.ft. Construction in Progress 5,000 sq.ft. Open space - 90,000 sq.ft.
10.	Shri Mathuradas Mohata Jr. College, of Science, Umred Road, Nagpur.	Class Room -10 Laboratory ----- Physics - 3 Chemistry- 3 Biology - 3 Geology - 1		Construction 26,000 sq. ft. Open space available
11.	New English Jr. College, Main Branch, Mahal, Nagpur.	Class Room - 8 Laboratory ----- Physics - 1 Chemistry - 1 Biology - 1 Vocational- 3		Construction 10,000 sq.ft. Construction in Progress 3,000sq.ft. Open space- 20,000 sq.ft.
12.	Dharampeth High School, North Ambazari Road, Nagpur.	Class Room -20 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Vocational 1		Construction 20,000 sq.ft. Construction in Progress 3,000 sq.ft. Open space available
13.	Somalwar Jr. College, Khamla Road, Nagpur.	Class Room -15 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Vocational 1		Construction 10,000 sq. ft. Open space available
14.	Sainath Night Jr. College, Mahal, Nagpur.	Class Room -10		Construction 4,000 sq.ft. Open space available.

1.	2.	3.	4.	5.
15.	Samarth Jr. College, Ramtek Dist:- Nagpur.	Class Room -10 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Work shop shed - 1 Drawing Room - 1		Construction 12,000 sq.ft. Open space available
16.	B.N. Chaudhary Jr. College, Jalalkheda, Tah,- Narkhed, Dist.- Nagpur.	Class Room -17 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1		Construction 5,000 sq.ft. Open space available
17.	Sarvodaya Jr. College of Science, Parshioni, Dist.- Nagpur.	Class Room -10 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1		Construction 6,000 sq.ft. Open space available
18.	Vasantro Naik Jr. College, Sirsi, Tah.- Unred, Dist.- Nagpur.	Class Room - 6 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Vocational 1		Constructio 8,000 sq.ft. Open space available
19.	Ashok Vidyalaya Unred.	Class Room - 6 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1 Vocational 1		Construction 8,000 sq.ft. Open space available
20.	Vinayakrao Deshmukh High School, Nagpur.	Class Room -20 Laboratory ----- Physics - 1 Chemistry- 1 Biology - 1		Construction 16,000 sq.ft. Open space available
21.	Dhanwate National College, Nagpur.	Class Room -27		Constructio 10,897 sq.ft. Open space available

(Note:- Above information is restricted to those institutes who have submitted the required information)

TABLE NO. 4.4 (Contd).

ITEM 3 :- Other infrastructural facilities available in the vicinity.

Sr. No. 1.	Name of Tahsil 2.	Other infrastructural facilities available in the vicinity. 3.
(1)	Nagpur	<p>(A) Agriculture</p> <hr/> <p>1) Agriculture farms 2) Horticultur (Nursary) 3) Social Forestry (Nursary)</p> <p>(B) Animal Husbandry</p> <hr/> <p>1) Dispensaries/Poly- clinic 2) Aid Centres 3) Poultry farms</p> <p>(C) Dairy</p> <hr/> <p>1) Chilling Plants</p> <p>(D) Fishery</p> <hr/> <p>1) Fishing ponds 2) Tanks</p> <p>(E) Technical</p> <hr/> <p>1) I.T.I. 2) Technical High School 3) Industrial Estate 4) Engineering Work Shop 5) Computer Centre 6) Engineering College 7) Polytechnic</p> <p>(F) Trade and Commerce</p> <hr/> <p>1) Banks 2) Business Centre 3) Big Hotels</p> <p>(G) Medical</p> <hr/> <p>1) Medical College 2) Primary Health Centre 3) Hospitals 4) Dispensaries 5) X-Ray Machines 6) Pathological Laboratories 7) National Fire Service College 8) Matru Seva Sangh 9) Chemist and Druggist</p>

1.	2.	3.
		(H) <u>Transport</u> 1) Vehicle Repairs and Service Centre 2) Motor Driving School 3) Travel and Tourist Agencies 4) Goods and Motor Transport
		(I) <u>Construction</u> 1) Building Builders 2) Architects and Engineers.
(2)	<u>Katol</u>	(A) <u>Agriculture</u> 1) Agricultural farms 2) Social Forestry (Nursary)
		(B) <u>Animal Husbandry</u> 1) Dispensaries/Poly-clinic 2) Aid Centres 3) Poultry farms
		(C) <u>Fishery</u> 1) Fishing Ponds 2) Tanks
		(D) <u>Technical</u> 1) I.T.I. 2) Technical High School 3) Polytechnic
		(E) <u>Trade and Commerce</u> 1) Banks 2) Business Centre
		(F) <u>Medical</u> 1) Dispensaries 2) Primary Health Centre
		(G) <u>Transport</u> 1) Goods and Motor Transport
(3)	<u>Ramtek</u>	(A) <u>Animal Husbandary</u> 1) Dispensaries 2) Aid Centres
		(B) <u>Dairy</u> 1) Chilling Plants

1.	2.	3.
		(C) Fishery ----- 1) Fishing Ponds 2) Tanks
		(D) Technical ----- 1) I.T.I. 2) Technical High School 3) Engineering College
		(E) Trade and Commerce ----- 1) Banks 2) Business Centre
		(F) Medical ----- 1) Dispensaries 2) Primary Health Centre
(4)	Unned -----	(A) Agriculture ----- 1) Agricultural farms 2) Horticulture Farms(Nursary)
		(B) Animal Husbandary ----- 1) Dispensaries 2) Aid Centre 3) Poultry farms
		(C) Fishery ----- 1) Fishing Ponds 2) Tanks
		(D) Technical ----- 1) I.T.I. 2) Polytechnic
		(E) Trade and Commerce ----- 1) Banks 2) Business Centre
		(F) Medical ----- 1) Dispensaries 2) Primary Health Centre
		(G) Transport ----- 1) Vehicle Reparis and Servicing Centre

1.	2.	3.
(5)	<u>Saoner</u>	<p>(A) <u>Agriculture</u></p> <ul style="list-style-type: none">1) Agriculture farms2) Horticulture (Nursary) <p>(B) <u>Animal Husbandary</u></p> <ul style="list-style-type: none">1) Dispansaries2) Aid Centre <p>(C) <u>Fishery</u></p> <ul style="list-style-type: none">1) Fishing Ponds2) Tanks <p>(D) <u>Technical</u></p> <ul style="list-style-type: none">1) Technical High School <p>(E) <u>Trade and Commerce</u></p> <ul style="list-style-type: none">1) Banks2) Business Centre <p>(F) <u>Medical</u></p> <ul style="list-style-type: none">1) Dispensaries2) Primary Health Centre <p>(G) <u>Transport</u></p> <ul style="list-style-type: none">1) Vehicle Repairs and Servicing Centre
(6)	<u>Narkhed</u>	<p>(A) <u>Agriculture</u></p> <ul style="list-style-type: none">1) Agriculture farms2) Horticultural Nursary <p>(B) <u>Animal Husbandary</u></p> <ul style="list-style-type: none">1) Dispensaries2) Aid Centre <p>(C) <u>Technical</u></p> <ul style="list-style-type: none">1) Technical High School <p>(D) <u>Trade and Commerce</u></p> <ul style="list-style-type: none">1) Banks2) Business Centre <p>(E) <u>Medical</u></p> <ul style="list-style-type: none">1) Dispensaries2) Primary Health Centre

1.	2.	3.
		(F) Transport ----- 1) Vehicle Repairs and Servicing Centre
(7)	<u>Kalmeshwar</u>	(A) Agriculture ----- 1) Agriculture farms 2) Horticultural Nursery (B) Animal Husbandry ----- 1) Dispensaries 2) Aid Centre (C) Technical ----- 1) Engineering Work shop 2) Industrial Estate (D) Trade and Commerce ----- 1) Banks 2) Business Centre (E) Medical ----- 1) Dispensaries 2) Primary Health Centre (F) Transport ----- 1) Vehicle Repairs and servicing centre
(8)	<u>Kamptee</u>	(A) Agriculture ----- 1) Agriculture farms 2) Social Forestry (Nursary) (B) Animal Husbandary ----- 1) Dispensaries 2) Aid Centre (C) Technical ----- 1) Engineering Work Shop 2) Polytechnic (D) Trade and Commerce ----- 1) Banks 2) Business Centre

1.	2.	3.
		(E) <u>Medical</u> 1) Dispensaries 2) Primary Health Centre
		(F) <u>Transport</u> 1) Vehicle Repair and Servicing Centre
(9)	<u>Parshioni</u>	(A) <u>Agriculture</u> 1) Agriculture farms 2) Social Forestry (Nursary)
		(B) <u>Animal Husbandry</u> 1) Dispensaries 2) Aid Centres
		(C) <u>Trade and Commerce</u> 1) Banks
		(D) <u>Medical</u> 1) Dispensaries 2) Primary Health Centre
(10)	<u>Mouda</u>	(A) <u>Agriculture</u> 1) Agriculture farms 2) Horticulture (Nursary) 3) Social Forestry (Nursary)
		(B) <u>Animal Husbandry</u> 1) Dispensaries 2) Aid Centre
		(C) <u>Trade and Commerce</u> 1) Banks 2) Business Centre
		(D) <u>Medical</u> 1) Dispensaries 2) Primary Health Centre
		(E) <u>Transport</u> 1) Vehicle Repairs and Servicing Centre
(11)	<u>Hingana</u>	(A) <u>Agriculture</u> 1) Social Forestry (Nursary)

1.	2.	3.
		(B) Animal Husbandry ----- 1) Dispensaries 2) Aid Centre
		(C) Trade and Commerce ----- 1) Banks
		(D) Medical ----- 1) Dispensaries 2) Primary Health Centre
(12)	<u>Kuhi</u>	(A) Animal Husbandry ----- 1) Dispensaries 2) Aid Centre
		(B) Trade and Commerce ----- 1) Banks
		(C) Medical ----- 1) Dispensaries 2) Primary Health Centre
(13)	<u>Bhivapur</u>	(A) Animal Husbandry ----- 1) Dispensaries 2) Aid Centre
		(B) Trade and Commerce ----- 1) Banks 2) Business Centre
		(C) Medical ----- 1) Dispensaries 2) Primary Health Centre
		(D) Transport ----- 1) Vehicle Repairing and Servicing Centre

4.34 VOCATIONAL COURSES FOR WOMEN :

The Ad-hoc Committee also considered the local demands and suitability of courses for women to enable them to enter in to 'World of Work' or to start own venture.

The vocational courses have been suggested for women are as below. :-

Sr. No.	Group	Name of Courses
(1)	Home Science	1) Fruit, food and vegetable processing and preservation. 2) Bakery and Confectionery 3) Receptionist 4) Institutional House-keeping 5) Cookery 6) House and Interior Decoration 7) Beauty Technician
(2)	Commerce	1) Stenography and Typewriting 2) Marketing and Salesmanship 3) Secretarial Practice
(3)	Health	1) Creche & Pre-school Management 2) Multi-purpose Health Worker 3) Pharmacist.
(4)	Technical	1) Electronics Technology 2) Computer Technician 3) Knitting with Machine 4) Dress-making and Designing.

4.35 LIMITATIONS OF SURVEY :

The limitations of the survey have been stated elsewhere. However, the constrains on implementation of the vocational education are given below.

- I) Vocational education is expansive than the academic education. But generally inadequate funds from Govt. impose limit on qualitative improvement and expansion of the scheme.
- II) The scheme is expected to be implemented in private school. They experience constraints of equipments, materials and other infrastructural facilities like building, trained teachers, collaborative arrangement for practical training and co-ordination and liasion with departments and industries. Sufficient and timely finance from Government side is necessary.

- III) The vocational education scheme is the process of changing the attitudes of students, parents, employers, teachers and so it is slow. The participation of community and industries is a must for the success of scheme.
- IV) Vocational courses are selected on the basis of felt needs of the areas. The technology is changing very rapidly and it is necessary to keep up-to-date liaison with latest technology. The district vocational surveys should be repeated after every 2 or 3 years in order to assess the relevance of existing courses and to monitor the changing occupational trends calling for introduction of new vocational courses.

4.36 VOCATIONALISATION OF EDUCATION :

The Government has given priority for Vocational Education at +2 level scheme. As per Government policy, the Vocational courses should cover 10 percent of students by 1990 and 25 percent by 1995. The number of students enrolled under vocationalisation of education at +2 level, for Bifocal Vocational Courses and Minimum Competency Vocational Courses together was 1650 during 1988-89 in the district. Hence enrolment in vocational courses is about 5 percent of total enrolment at +2 level.

TABLE 4,5

SUMMARY

Summary of Vocational Courses identified and probable manpower requirement for next five years

Courses for S.S.C. students				Courses for non S.S.C. students			
Sr. No.	Course	Duration in years/months	Probable manpower requirement	Sr. No.	Course	Duration in years/months	Probable manpower requirement
1.	2.	3.	4.	5.	6.	7.	8.
PRIMARY SECTOR							
1.	Fruit, food & vegetable Processing & Preservation,	2 yrs.	200	1.	Dry Land Farming,	1 year	100
2.	Seed Production Technology,	2 yrs.	100	2.	Poultry Supervisor,	1 year	200
3.	Plant Protection techniques and management/farm supervisor	2 yrs.	400	3.	Veterinary Assistant	6 month	400
4.	Crop Science	2 yrs.	400	4.	Fodder development & Preparation of feed,	6 month	200
5.	Horticulture Supervisor	2 yrs.	400	5.	Nursery supervisor,	1 year	300
6.	Plasticulture	1 year	200	6.	Crane operator,	6 month	100
7.	Agro Service Centre supervisor/Agriculture implements production & repair,	2 yrs.	400	7.	Dumper operator,	6 month	100
8.	Soil Conservation & Water management	2 yrs.	200	8.	Pump operator	6 month	100
9.	Animal Science & Dairying	2 yrs.	400	9.	Driller/Drilling Machine (Mines)	6 month	100
10.	Live stock Supervisor,	2 yrs.	500	10.	Blasting Technician, (Mines)	6 month	100
11.	Inland fishery	2 yrs.	100				

1.	2.	3.	4.	5.	6.	7.	8.
SECONDARY SECTOR							
12.	Mechanical Technology,	2 yrs.	500	11.	Forging Expert	1yr.	100
13.	Maintenance & repair of Medical laboratory equipments,	2 yrs.	200	12.	Gear Rubbing technician	1yr.	100
14.	Electronics Technology	2 yrs.	1000	13.	Mining machine Maintenance & repair,	1yr.	100
15.	Maintenance & repair of electric domestic appliances,	2 yrs.	1000	14.	Maintenance & repair of pump & electric motor,	1yr.	500
16.	Radio & T,V, Mechanic	2 yrs.	500	15.	Electroplater	6mth.	100
17.	Computer Technician	2 yrs.	200	16.	Galvanising Mechanic,	6mth.	100
18.	Chemical Plant Operator	2 yrs.	100	17.	Photo Litho Operator,	1 yr.	100
19.	Plastic mould maker,	2 yrs.	200	18.	Fibre glass Technician,	1 yr.	200
20.	Knitting with Machine,	2 yrs.	500	19.	Calico Printer	1 yr.	500
21.	Dress Making & designing,	2 yrs.	500				
22.	Plastic processing Technician,	2 yrs.	200				
TERTIARY SECTOR							
23.	Office Management	2 yrs.	200	20.	Body Building (Vehicle) Machine,	1yr.	200
24.	Stenography & Typewriting	1 yr.	500	21.	Heavy Vehicle driver,	6mth	500
25.	Accounting & Auditing	2 yrs.	500	22.	Tyre Remoulding & Vulcanising	6mth	500
26.	Marketing & Salesmanship	2 yrs.	500				

1.	2.	3.	4.	5.	6.	7.	8.
27.	Purchasing & Store-keeping	2 yrs.	200				
28.	Secretarial Practice.	2 yrs.	200				
29.	Transport Management.	1 yr.	200				
30.	General Insurance.	2 yrs.	500				
31.	Auto Engineering Technician.	2 yrs.	500				
32.	Building Maintenance.	2 yrs.	500				
33.	Rural Engineering Technology.	2 yrs.	500				
34.	Medical Laboratory Technician.	2 yrs.	200				
35.	X-Ray Technician.	1 yrs.	100				
36.	Ophthalmic Technician.	1 yrs.	100				
37.	Creche & Pre School Management.	2 yrs.	500				
38.	Multipurpose Health Worker (Male/Female)	2 yrs.	1000				
39.	Dental Hygienist	1 yr.	100				
40.	Medicine Testing Expert.	2 yrs.	200				
41.	Pharmacist.	2 yrs.	200				
42.	Catering & Restaurant Management.	2 yrs.	500				
43.	Bakery & Confectionery.	2 yrs.	500				
44.	Institutional House keeping.	2 yrs.	200				
45.	Cookery	2 yrs.	200				
46.	Receptionist	1 yr.	200				

1.	2.	3.	4.	5.	6.	7.	8.
47.	House & Interior Decoration,	1 yr.	200				
48.	Beauty Technician	1 yr.	200				
49.	Travel & Tourism	2 yrs.	200				

Note :- The duration of curriculum is mentioned here as per advice of the field experts and knowledgeable persons. However, this is subjected to change depending upon the views of the Courses Committee members and relative topics.

TABLE 4.6

Tahsil-wise summary of courses identified

PRIMARY SECTOR				Dist.:- Nagpur	
Sr. No.	Tahsil	Courses identified for S.S.C. students	Duration	Courses identified for non SSC students	Duration
1.	2.	3.	4.	5.	6.
01.	Nagpur	1) Fruit, food and vegetable processing & Preservation,	2 yrs.	1) Dry land farming	1 yr.
		2) Seed production Technology,	2 yrs.	2) Poultry Supervisor	1 yr.
		3) Plant protection Techniques and Management/Farm Supervisor,	2 yrs.	3) Veterinary Assistant	6 mths.
		4) Crop Science	2 yrs.	4) Fodder development and preparation of feed,	6 mths.
		5) Agro Service Centre Supervisor/Agriculture implements production & repair,	2 yrs.	5) Crane Operator,	6 mths.
		6) Soil Conservation & water Management,	2 yrs.	6) Dumper Operator,	6 mths.
		7) Animal Science & Dairying,	2 yrs.	7) Pump Operator,	6 mths.

1.	2.	3.	4.	5.	6.
		8) Live stock supervisor,	2 yrs.	8) Driller/ Drilling Machines (Mines)	6 mths.
		7) Inland Fishery	2 yrs.	9) Blasting Technician (Mines)	6 mths.
Ø2, Kamptee	1) Plant Protection Techniques and management/Farm Supervisor,	2 yrs.	1) Dry Land Farming		1 yr.
	2) Crop Science	2 yrs.	2) Poultry supervisor,		1 yr.
	3) Agro service centre Supervisor/ Agriculture implements Production & repair,	2 yrs.	3) Veterinary Assistant		6 mths.
	4) Soil Conservation & Water management	2 yrs.	4) Fodder development & preparation of feed,		6 mths.
	5) Animal Science & Dairying	2 yrs.	5) Crane Operator		6 mths.
	6) Live stock supervisor,	2 yrs.	6) Dumper Operator,		6 mths.
			7) Pump Operator,		6 mths.
			8) Driller/ Drilling Machine (Mines)		6 mths.
			9) Blasting Technician (Mines)		6 mths.
Ø3, Hingana	1) Plant Protection Techniques & Management/farm supervisor,	2 yrs.	1) Dry Land farming		1 yr.
	2) Crop Science	2 yrs.	2) Poultry supervisor,		1 yr.
	3) Agro service centre supervisor/Agriculture Implements Production & repair	2 yrs.	3) Veterinary Assistant		6 mths.
	4) Soil Conservation & Water Management	2 yrs.	4) Fodder development & preparation of feed,		6 mths.
	5) Animal Science & Dairying,	2 yrs.			
	6) Live stock Supervisor,	2 yrs.			

1.	2.	3.	4.	5.	6.
Ø4. Kalmeshwar	1) Seed Production Technology, 2) Plant Prot. Tech. & Mgmt./Farm Supervisor, 3) Crop Science 4) Horticulture Supervisor, 5) Plasticulture 6) Agro Service Centre supervisor/Agri. Imp. Prod. & Rep. 7) Soil Conservation & Management, 8) Animal Science & Dairying, 9) Live Stock Supervisor, 10) Inland Fishery	2 yrs. 2 yrs. 2 yrs. 2 yrs. 1 yr. 2 yrs. 2 Yrs. 2 yrs. 2 yrs. 2 yrs.	1) Dry Land Farming 2) Poultry Supervisor 3) Vetrinary Assistant,	1 yr. 1 yr. 6 mths.	
Ø5. Katol	1) Fruit, food & vegetable processing & preservation, 2) Seed Prod. Tech. 3) Plant Prot. Tech. & Mgmt./Farm Supervisor, 4) Crop Science 5) Horticulture Supervisor, 6) Plasticulture 7) Agro Service centre Sup/Agri. Imp. Prod. & repair 8) Soil coservation & water management. 9) Animal science & Dairying, 10) Live stock super-visor.	2 yrs. 2 yrs. 2 yrs. 2 yrs. 2 yrs. 1 yr. 2 yrs. 2 yrs. 2 yrs. 2 yrs.	1) Dry land Farming, 2) Poultry Supervisor 3) Vetrinary Assistant,	1 yr. 1 yr. 6 mths.	
Ø6. Narkhed	1) Fruit, food & vege. Proc. & preservation, 2) Plant Prot. Tech. & Mgmt./farm supervisor, 3) Crop Science 4) Horticulture Supervisor, 5) Plasticulture 6) Agro service center imp./Agri. imp.prod.& repair. 7) Soil conservation & water management.	2 yrs. 2 yrs. 2 yrs. 2 yrs. 1 yrs. 2 yrs. 2 yrs.	1) Dry Land Farming 2) Poultry Supervisor 3) Veterinary Assistant,	1 yr. 1 yr. 6 mths.	

1,	2,	3,	4,	5,	6,
		8) Animal Science & Dairying,	2 yrs.		
		9) Live stock supervisor,	2 yrs.		
Ø7, Ramtek	1) Seed Production Technology,	2) Plant Prot. tech. & management/ farm Supervisor,	2 yrs.	1) Dry land farming	1 yr.
	3) Crop Science	4) Horticulture Supervisor,	2 yrs.	2) Poultry Supervisor	1 yr.
	5) Plasticulture	6) Agro service centre Sup./Agri. imp.prod.& rep.	1 yrs.	3) Veterinary Assistant,	6 mths.
	7) Soil Conservation & water management,	8) Animal Science & Dairying	2 yrs.	4) Nursery Supervisor	1 yr.
	9) Live-Stock Supervisor,	10) Inland Fishery	2 yrs.	5) Crane Operator,	6 mths.
				6) Dumper Operator,	6 mths.
				7) Pump operator	6 mths.
				8) Deiller/ Drilling Machine (Mines)	6 mths.
				9) Blasting Technician (Mines)	6 mths.
Ø8, Panshioni	1) Plant Prot. Tech. & Mgmt./Farm Supervisor,	2) Crop Science	2 yrs.	1) Dry Land Farming	1 yr.
	3) Agro Science centre supervisor/ Agri. Imp,Prod. & repair.	4) Soil Conservation & Water management	2 yrs.	2) Poultry Supervisor	1 yr.
	5) Animal Science & Dairying,	6) Live Stock Supervisor,	2 yrs.	3) Veterinary Assistant	6 mths.
				4) Nursery supervisor,	1 yr.
Ø9, Saoner	1) Plant Prot. Tech. & Mgmt./Farm Supervisor	2) Crop Science,	2 yrs.	1) Dry Land Farming	1 yr.
	3) Horticulture Supervisor	4) Agro Service Centre supervisor/Agri. imp, prod. & repair	2 yrs.	2) Poultry Supervisor	1 yr.
				3) Veterinary Assistant,	6 mths.
				4) Fodder Dev. Preparation of feed	6 mths.

1.	2.	3.	4.	5.	6.
		5) Soil conservation & Water Management	2 yrs.	5) Crane Operator	6 mths.
		6) Animal Science & Dairying	2 yrs.	6) Dumper Operator	6 mths.
		7) Live Stock Supervisor	2 yrs.	7) Pump Operator,	6 mths.
				8) Driller/ Drilling Machine (Mines)	6 mths.
				9) Blasting Tech, (Mines)	6 mths.
10, Kuhi		1) Plant prot, Tech, & Mgmt./Farm Supervisor,	2 yrs.	1) Dry Land Farming,	1 yr.
		2) Crop Science	2 yrs.	2) Poultry Supervisor	1 yr.
		3) Agro Service Centre Supervisor/Agri. imp. Prod. & Repair	2 yrs.	3) Veterinary Assistant	6 mths.
		4) Soil Conservation & Water Mgmt.	2 yrs.	4) Nursery Supervisor	1 yr.
		5) Animal Science & Dairying,	2 yrs.		
		6) Live Stock supervisor,	2 yrs.		
11, Bhivapur		1) Plant protection Tech, & Mgmt./Farm Supervisor	2 yrs.	1) Dry Land Farming	1 yr.
		2) Crop Science	2 yrs.	2) Poultry Supervisor	1 yr.
		3) Agro Service Centre Supervisor/Agri. imp. prod. & repair	2 yrs.	3) Veterinary Assistant	6 mths.
		4) Soil Conservation & Water mgmt.	2 yrs.		
		5) Animal Science & Dairying	2 yrs.		
		6) Live Stock Supervisor	2 yrs.		
12, Umred		1) Plant Protection Tech, & Mgmt./farm Supervisor	2 yrs.	1) Dry Land Farming	1 yr.
		2) Crop Science	2 yrs.	2) Poultry supervisor	1 yr.
		3) Agro Service Centre Supervisor/Agri. imp. Prod. & Repair	2 yrs.	3) Veteri- naary Asstt.	6 mths.
		4) Soil Conservation & Water Mgmt.	2 yrs.	4) Crane Operator	6 mths.

1.	2.	3.	4.	5.	6.
		5) Animal Science & Dairying	2 yrs.	5) Dumper Operator	6 mths.
		6) Live Stock Supervisor	2 yrs.	6) Pump Operator	6 mths.
		7) Inland Fishery	2 yrs.	7) Driller/Drilling Machine (Mines)	6 mths.
				8) Blasting Technician (Mines)	6 mths.
13, Mouda		1) Fruit, food and veg. Processing & Pres.	2 yrs.	1) Dry Land Farming	1 yr.
		2) Plant Prot. Tech. & Mgmt./Farm Supervisor	2 yrs.	2) Poultry Supervisor	1 yr.
		3) Crop Science	2 yrs.	3) Veterinary Asstt.	6 mon
		4) Horticulture supervisor	2 yrs.	4) Fodder develop. & Preparation of feed	6 mths.
		5) Agro Service Centre Supervisor/Agri. Imp. Prod. & Repair	2 yrs.		
		6) Soil Conservation & Water Management	2 yrs.		
		7) Animal Science & Dairying	2 yrs.		
		8) Live Stock Supervisor	2 yrs.		

TABLE 4,6 (Contd.)

SECONDARY SECTOR

Sr. No.	Tahsil	Courses identified for S.S.C. students		Courses identified for non-SSC students	
		Course	Duration	Course	Duration
1.	2.	3.	4.	5.	6.
Ø1.	Nagpur	1) Mechanical Technology	2 yrs.	1) Forging Expert	1 yr.
		2) Maintenance & Repair of Medical Laboratory Equipments	2 yrs.	2) Gear Hubbing Technician	1 yr.
		3) Electronics Technology	2 yrs.	3) Maint. & Rep. of Pumps & elect. motor	1 yr.
		4) Maint. & Rep. of elect. domestic appliances	2 yrs.	4) Electroplater	6 mths.
		5) Radio & T.V. Mechanic	2 yrs.	5) Galvanising Mechanic	6 mths.
		6) Computer Technician	2 yrs.	6) Photo Litho Operator	1 yr.
		7) Plastic Mould Maker	2 yrs.	7) Fibre glass Technician	1 yr.
		8) Knitting with Machine	2 yrs.	8) Calico printer	1 yr.
		9) Dress Making & Designing	2 yrs.		
		10) Plastic Processing Technician	2 yrs.		
Ø2.	Kamptee	1) Maint. & Rep. of elect. domestic appliances	2 yrs.	1) Mining Machine maint. & repair	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.	2) Maint. & Rep. of Pump & elect. motor	1 yr.
Ø3.	Hingana	1) Mechanical Technology	2 yrs.	1) Forging Expert	1 yr.
		2) Electronics Technology	2 yrs.	2) Gear Hubbing Technician	1 yr.
		3) Maint. & Rep. of elect. dom. appliances	2 yrs.	3) Maint. & Rep. of pump & elect. motor.	1 yr.
		4) Radio & T.V. Mechanic	2 yrs.	4) Electroplater	6 mths.
		5) Plastic mould maker	2 yrs.		
		6) Plastic Processing Technician	2 yrs.		

Ø4.	Kalmes- hwar	1) Maint. & Rep. of elect. dom. appliances	2 yrs.	1) Maint. & Rep. of pump & Elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.	2) Galvanising Mechanic	6 mths.
				3) Calico printer	1 yr.
Ø5.	Katol	1) Mechanical Technology	2 yrs.	1) Maint & rep. of pump & Elect. motor	1 yr.
		2) Maint. & Rep. of elect. dom. appliances	2 yrs.		
		3) Radio and T.V. Mechanic	2 yrs.		
Ø6.	Narkhed	1) Maint. & Rep. of elect. dom. appliances	2 yrs.	1) Maint. & Rep. of pump & elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.		
Ø7.	Ramtek	1) Maint. & Rep. of elect. dom. appliances	2 yrs.	1) Mining Machine maint. & repair	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.	2) Maint. & rep. of pump & elect. motor	1 yr.
Ø8.	Parshi- oni	1) Maint. & rep. of elect. dom. appliances	2 yrs.	1) Maint. rep. of pump & elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.		
Ø9.	Saoner	1) Maint. & rep. of elect. dom. appliances	2 yrs.	1) Mining machine maint. & repair	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.	2) Maint. & rep. of pump & elect. motor	1 yr.
10.	Kuhi	1) Maint. & rep. of elect. dom. appliances	2 yrs.	1) Maint. & rep. of pump & elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.		
11.	Bhivapur	1) Maint. & rep. of elect. dom. appliances	2 yrs.	1) Maint. & rep. of pump & elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.		

12.	Umred	1) Maint. & rep. of elect, dom. appliances	2 yrs.	1) Mining machine maint. & rep.	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.	2) Maint. & rep. of pump & elect. motor	1 yr.
13.	Mouda	1) Maint. & rep. of elect, dom. appliances	2 yrs.	1) Maint. & rep. of pump & elect. motor	1 yr.
		2) Radio & T.V. Mechanic	2 yrs.		
		3) Chemical plant Operator	2 yrs.		

TERTIARY SECTOR

Sr. No.	Tahsil	Courses identified for S.S.C. students		Courses identified for non-SSC students	
		Course	Duration	Course	Duration
1.	2.	3.	4.	5.	6.
01.	Nagpur	1) Office Management	2 yrs.	1) Body building (Vehicle) Mech.	1 yr.
		2) Stenography & Typewriting	1 yr.	2) Heavy Vehicle Driver	6 mths.
		3) Accounting & Auditing	2 yrs.	3) Tyre remoulding & Valcanising	6 mths.
		4) Marketing & Salesmanship	2 yrs.		
		5) Purchasing & Store-keeping	2 yrs.		
		6) Secretarial practice	2 yrs.		
		7) Transport Management	1 yr.		
		8) General Insurance	2 yrs.		
		9) Auto Engg. Technician	2 yrs.		
		10) Building Maintenance.	2 yrs.		
		11) Rural Engg. Technology	2 yrs.		
		12) Medical Lab. Technician	2 yrs.		
		13) X-ray Technician	1 yr.		
		14) Ophthalmic Technician	1 yr.		
		15) Creche & Pre-school management	2 yrs.		
		16) Multi-purpose Health Worker (Male/Female)	2 yrs.		

1.	2.	3.	4.	5.	6.
		17) Dental Hyginist	1 yr.		
		18) Medicine Testing Expert	2 yrs.		
		19) Pharmacist	2 yrs.		
		20) Catering & Restaurant management	2 yrs.		
		21) Bakery & Confectionery	2 yrs.		
		22) Institutional House keeping	2 yrs.		
		23) Cookery	2 yrs.		
		24) Receptionist	1 yr.		
		25) House & interior decoration	1 yr.		
		26) Beauty Technician	1 yr.		
		27) Travel & Tourism	2 yrs.		
02.	Kamptee	1) Office Management	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Stenography & Typewriting	1 yr.		
		3) Mktg. & Salesmanship	2 yrs.		
		4) Transport Management	1 yr.		
		5) Auto Engg. Tech.	2 yrs.		
		6) Rural Engg. Tech.	2 yrs.		
		7) Multipurpose Health Worker (Male/Female)	2 yrs.		
		8) Pharmacists	2 yrs.		
		9) Bakery & Confectionery	2 yrs.		
03.	Hingana	1) A/c & Auditing	2 yrs.	1) Heavy Vehicle Driver	6 mths.
		2) Auto Engg. Tech.	2 yrs.	2) Tyre remoulding & Valcanising	6 mths.
		3) Rural Engg. Technology	2 yrs.		
		4) Multipurpose Health Worker (Male/Female)	2 yrs.		
		5) Cookery			
04.	Kalmeshwar	1) Rural Engg. Technology	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Multipurpose Health Worker (Male/Female)	2 yrs.		

1.	2.	3.	4.	5.	6.
05.	Katol	1) Auto Engg. Tech.	2 yrs.	1) Body building (Vehicle) Mechanic	1 yr.
		2) Bldg. Maintenance	2 yrs.	2) Tyre remoulding & Valcanising	6 mths.
		3) Rural Engg. Technology	2 yrs.		
		4) Medical Lab. Technician	2 yrs.		
		5) Creche & Pre-school Management	2 yrs.		
		6) Multipurpose Health Worker (Male/Female)	2 yrs.		
		7) Pharmasist	2 yrs.		
		8) Bakery & Confectionary	2 yrs.		
06.	Narkhed	1) Rural Engg. Technology	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Multipurpose Health Worker (Male/Female)	2 yrs.		
07.	Ramtek	1) Auto Engg. Technician.	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Rural Engg. Technology	2 yrs.		
		3) Multipurpose Health Worker (Male/Female)	2 yrs.		
		4) Travel & Tourism	2 yrs.		
08.	Parshi- oni	1) Rural Engg. Technology	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Multipurpose Health Worker (Male/Female)	2 yrs.		
09.	Saoner	1) Bulilding Maintenance	2 yrs.	1) Tyre remoulding & Valcanising	6 mths.
		2) Rural Engg. Technology	2 yrs.		
		3) Medical Lab. Technician	2 yrs.		
		4) Multipurpose Health Worker (Male/Female)	2 yrs.		
		5) Pharmacists	2 yrs.		

1.	2.	3.	4.	5.	6.
10.	Kuhi	1) Rural Engg. Technology 2) Multi-purpose Health Worker (Male/Female)	2 yrs., 2 yrs.,	1) Tyre Remoulding & Valcanising	6 mon
11.	Bhivapur	1) Rural Engg. Technology 2) Multi-purpose Health Worker (Male/Female)	2 yrs., 2 yrs.,	1) Tyre Remoulding & Valcanising	6 mths.
12.	Umred	1) Auto Engg. Technician 2) Building Maintenance 3) Rural Engg. Technology 4) Multipurpose Health Worker (Male/Female) 5) Pharmacists' 6) Bakery & Confectionary	2 yrs., 2 yrs., 2 yrs., 2 yrs., 2 yrs., 2 yrs.,	1) Body Building (Vehicle) Mechanic 2) Tyre remoulding & Valcanising	1 yr., 6 mths.
13.	Mouda	1) Rural Engg. Technology 2) Multipurpose Health Worker (Male/Female)	2 yrs., 2 yrs.,	1) Tyre remoulding & Valcanising	6 mths.

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APPENDIX - 1

LAND USE PATTERN 1985-86

(Area in 100 Hectares)

Sr. No.	Tahsil	Geographical area.	Area under forest	Area not available for cultivation			Other cultivated land			Total
				Land put to non-agricul. use.	Barran & uncultivated land.	total	Cultivable waste	Posture & grazing land (Permanent)	Land under misc. trees etc.	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.
1.	Nagpur (urban)	209 (100.00)	1 (0.47)	74 (35.41)	14 (6.70)	88 (42.10)	39 (18.66)	15 (7.17)	--	54 (25.84)
2.	Nagpur (Rural)	620 (100.00)	10 (1.61)	37 (5.96)	16 (2.58)	53 (0.8.55)	24 (3.87)	20 (3.23)	38 (6.12)	82 (13.22)
3.	Hingna	786 (100.00)	138 (17.56)	39 (4.96)	11 (1.40)	50 (6.36)	34 (4.33)	11 (1.40)	102 (12.98)	147 (18.70)
4.	Kampti	424 (100.00)	9 (2.12)	50 (11.79)	--	50 (11.79)	--	10 (2.36)	53 (12.50)	63 (14.86)
5.	Katol	842 (100.00)	128 (15.20)	49 (5.82)	5 (0.59)	54 (6.41)	78 (9.26)	73 (8.67)	--	151 (17.93)
6.	Narkhed	768 (100.00)	47 (6.11)	19 (2.47)	27 (3.52)	46 (5.99)	18 (2.34)	80 (10.42)	21 (2.73)	119 (15.49)
7.	Saoner	619 (100.00)	1 (0.16)	33 (5.33)	--	33 (5.33)	47 (7.59)	80 (12.92)	--	127 (20.52)

1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.
8. Kalmeshwar		543 (100.00)	40 (7.37)	8 (1.47)	19 (3.50)	27 \$4.97)	32 (5.89)	65 (11.97)	-- --	97 (17.86)
9. Ramtek		1143 (100.00)	629 (55.3)	32 (2.80)	37 (3.23)	69 (6.03)	45 (3.94)	74 (6.47)	13 (9-09)	132 (11.54)
10. Parshivani		787 (100.00)	224 \$28.46)	13 (0.38)	122 (15.50)	135 (11.81)	13 (0.38)	-- --	-- --	13 (0.38)
11. Maude		613 (100.00)	1 \$0.16)	-- **	-- **	-- --	25 (4.07)	71 (11.58)	-- --	96 (15.66)
12. Umred		979 (100.00)	220 (22.47)	29 (2.97)	75 \$7.66)	104 (10.62)	13 (1.33)	37 (3.78)	25 (2.55)	75 (7.66)
13. Rhivapur		702 (100.00)	126 (17.95)	52 (7.41)	13 (0.42)	65 (9.25)	15 (2.14)	16 (0.85)	9 \$1.28)	40 (5.59)
14. Kuhi		829 (100.00)	137 (16.53)	44 (5.3 1)	8 (0.96)	52 (6.27)	20 (2.41)	-- --	51 (6.15)	71 (8.56)
TOTAL		9864 (100.00)	1711 (17.35)	479 \$4.86)	347 (3.52)	826 (8.37)	403 (4.08)	552 (5.60)	312 (3.16)	1267 (12.84)

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APPENIDX -1 (Contd)

Sr.No. Tahsil		Fallow land			Net area sown	Area sown more than once	Gross cropped Area
1.	2.	Current Fallow	Other fallow	Total			
		12.	13	14	15	16	17
1.	Nagpur (urban)	6 (2.87)	19 (9.09)	25 (11.96)	41 (19.62)	5 (2.39)	46 (22.01)
2.	Nagpur (Rural)	40 (6.45)	19 (3.06)	59 (9.52)	416 (67.09)	23 (3.71)	439 (70.81)
3.	Hingna	17 (2.16)	60 (7.63)	77 (9.80)	374 (47.58)	22 (2.80)	396 (50.38)
4.	Kampti	2 (0.47)	8 (1.88)	10 (2.36)	292 (68.86)	28 (6.60)	32 (7.55)
5.	Katol	28 (2.38)	25 (2.97)	45 (5.34)	464 (55.10)	48 (5.70)	512 (60.80)
6.	Narkhed	10 (1.30)	30 (3.90)	40 (5.21)	516 (67.19)	61 (10.14)	577 (75.13)
7.	Saoner	20 (3.23)	50 (8.08)	70 (11.31)	388 (62.68)	30 (4.85)	418 (67.53)
8.	Kalmeshwar	17 (3.13)	31 (5.71)	48 (8.84)	331 (60.96)	30 (5.52)	361 (66.48)
9.	Ramtek	18 (1.57)	26 (2.27)	44 (3.85)	269 (23.53)	2 (0.17)	271 (23.71)
10.	Parshivani	--	67 (8.51)	67 (8.51)	348 (44.21)	11 (1.40)	559 (45.62)

(CONTD)

1.	2.	12.	13.	14.	15.	16.	17.
11. Mauda		6 (0.97)	38 (6.20)	44 (7.18)	472 (76.99)	11 (1.79)	483 (78.79)
12. Umred		7 (0.72)	86 (8.78)	93 (9.95)	487 (49.74)	24 (2.45)	511 (52.20)
13. Bhivapur		3 (0.43)	14 (2.00)	17 (2.42)	454 (64.67)	16 (2.27)	470 (66.95)
14. Kuhi		8 (0.96)	14 (1.69)	22 (2.65)	547 (65.88)	30 (3.62)	577 (67.60)
TOTAL		174 (1.76)	487 (4.94)	661 (6.70)	5399 (54.73)	341 (3.46)	5740 (58.19)

(Source : District Stastical Abstract)
1987-88)

NOTE: 1) * less than 50 hectares.

2) figures in bracket indicate percentages to the geographical area.

APPENDIX-2

Tahasilwise classification of villages to population ranges in 1981.

(Population in hundred)

Sr No.	Tahasil	No. of villages having pupulation													
		less than 500		500-999		1000-1999		2000-4999		5000-9999		10000 and onward above		Total	
		No.	Pers- ons	No.	Per- sons	MM No.	Per sons	No.	Per sons	No.	Per- sons	No.	Persons	No.	Persons
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.
1.	Nagpur	89	202	41	310	12	165	2	71	1	63	-	9	145	811
														(8.74)	(7.24)
2.	Hingna	77	169	30	210	10	132	2	74	4	254	-	-	123	839
														(7.42)	(7.49)
3.	Kampthi	31	100	21	141	15	184	5	174	1	87	1	133	74	819
														(4.46)	(7.32)
4.	Katol	104	230	40	280	19	243	4	131	1	93	-	-	169	977
														(10.19)	(8.73)
5.	Narkhed	70	151	37	270	18	253	6	193	1	53	-	-	132	920
														(7.96)	(8.22)
6.	Saoner	60	139	38	255	16	256	5	149	4	244	-	-	125	1043
														(7.53)	(9.32)
7.	Kalmeshwar	43	99	29	204	14	189	5	153	-	-	-	-	91	645
														(5.49)	(5.76)
!!!															
8.	Rmtek	86	191	43	287	16	228	3	121	-	-	1	112	149	939
														(8.99)	(8.380)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9. Parshivani		58	153	27	184	19	261	3	79	1	67	1	136	109 (6.57)	880 (7-86)
10. Mauda		65	192	38	241	10	145	7	191	1	56	-	--	121 (7.29)	825 (7.36)
11. Umred		108	233	28	199	9	122	6	135	2	118	-	--	153 (9.23)	807 (7.21)
12. Bhivapur		63	157	35	236	12	161	1	38	-	--	1	102	112 (6.76)	694 (6.20)
13. Kuhi		63	228	51	346	17	231	2	60	2	132	-	--	155 (9.35)	997 (8.90)
TOTAL :		938	2244	458	3163	189	2570	51	1569	18	1167	4	483	1658 (100.00)	11196 (100.00)

Note: 1) Figures in bracket indicate percentage to total.

2) Total will not tally due to rounding.

(Source : Population census 1981.)

APPENDIX-3

Tahasilwise occupation Pattern Rural and Urban Classification as per 1981 Census

District : Nagpur-----

(Figures in '00')

Sr. No.	Tahsil	Rural Urban Total	Main workers					Marginal workers	Non workers	Total population
			Culti-vators	Agricu-ltural labourers	Household industries & mfg. processing.	Other workers	Total main workers.			
1.	2.	3.	4.	5.	6.	7.	8.	9.....	10	11.
1. Nagpur	Rural		107	177	13	88	385	15	409	811
	Urban		38	44	267	2880	3229	97	8887	12213
	Total		145	221	280	2968	3614	112	9296	13024
2. Hingna	Rural		116	167	14	72	369	16	454	839
	Urban		--	--	--	--	--	--	--	--
	Total		116	167	14	72	369	16	454	839
3. Kamptli	Rural		99	130	6	143	378	17	424	819
	Urban		4	6	34	228	272	20	566	857
	Total		103	136	40	371	650	37	990	1676
4. Katol	Rural		177	234	7	50	468	45	464	977
	Urban		12	28	2	36	78	1	162	240
	Total		189	262	9	86	546	46	626	1217
5. Narkhed	RURAL		169	216	8	39	432	32	456	920
	Urban		23	39	6	20	88	6	135	229
	Total		192	255	14	59	520	38	591	1149
6. Saoner	Rural		174	181	12	100	467	55	521	1043
	Urban		16	30	20	59	125	07	236	367
	Total		190	211	32	159	592	62	757	1410
7. Kalmeshwar	Rural		122	120	12	53	307	44	294	645
	Urban		12	16	2	19	49	15	92	158
	Total		134	136	14	72	356	59	386	803

1.	2.	3	4	5	6	7	8	9	10	11.
8. Ramtek	Rural	133	140	7	145	425	52	462	939	
	Urban	6	8	2	35	51	5	111	167	
	Total	139	148	9	180	476	57	573	1106	
9. Parshivani	Rural	109	121	7	153	390	45	445	880	
	Urban	1	4	1	26	30 22	3	86	121	
	Total	110	125	8	179	422	48	531	1001	
10. Mauda	Rural	146	159	16	43	364	51	410	825	
	Urban	--	--	--	--	--	--	--	--	
	Total	146	159	16	43	364	51	410	825	
11. Umred	Rural	130	177	15	64	386	32	389	807	
	Urban	10	24	20	48	102	19	219	339	
	Total	140	201	35	112	488	51	608	1146	
12. Bhivapur	Rural	120	179	14	131	344	29	322	694	
	Urban	--	--	--	--	--	--	--	--	
	Total	120	179	14	31	344	29	322	694	
13. Kuhi	Rural	193	218	14	47	472	62	463	997	
	Urban	--	--	--	--	--	--	--	--	
	Total	193	218	14	47	472	62	463	997	
TOTAL	Rural	1795	2219	145	1028	5188	495	5513	11196	
	Urban	122	199	354	3351	4026	172	10495	14693	
	Total	1917	2418	499	4379	9213	667	16008	25888	

Census
(Source : Population, 1981)

- Note: 1) Total will not tally due to ~~rounding~~ rounding.
 2) * This asterisk shows that the figures are less than 50.
 3) "Other workers" shown in column 7 indicates live stock, forestry-
~~ing~~ Fishing, hunting, plantation etc. add also construction, trades, transport, storage and communication other than household industries add other sector.

APPENDIX-4

Statement showing Tahsilwise area under different crops

(Area in '100' Hectares)

Tahsil	Year	Rice	Wheat	Jawar (kharip)	Jawar (rabbi)	Bajari	Maka	Wagi	Other	Total
1.	2.	3.	4.	5.	6.	7.	8.	9.	10..	11.
1. Nagpur (Urban)	1984-85	307	751	1880	2	-	44	-	-	2984
	1985-86	268	728	1810	2	-	68	-	2	2878
2. Nagpur (Rural)	1984-85	630	3916	13801	9	-	5	-	-	18361
	1985-86	531	4095	13358	26	-	2	-	-	18012
3. Hingna	1984-85	570	1808	16416	-	1	8	-	-	18803
	1985-86	784	1666	15174	-	-	1	-	-	17625
4. Kampti	1984-85	1684	7942	7170	106	1	11	-	3	16917
	1985-86	1717	7782	6420	115	1	22	-	5	16062
5. Katol	1984-85	948	3219	20223	--	55	21	-	8	24474
	1985-86	898	2716	19941	--	51	17	+	6	23629
6. Narkhed	1984-85	845	3734	21525	--	115	7	-	3	26229
	1985-86	655	3628	20655	--	111	9	-	6	25064
7. Saoner	1984-85	344	2841	17027	1	8	6	-	-	20027
	1985-86	295	2512	18687	1	--	2	-	1	21478
8. Kalmeshwar	1984-85	401	3398	17089	-	--	-	-	+	20888
	1985-86	300	2667	15186	-	-	-	-	-1	18154
9. Ramtek	1984-85	8501	2707	4164	5261	-	26	-	-	20659
	1985-86	7795	2342	4011	5192	-	466	-	1	19807
10. Parshivani	1984-85	2150	5724	11684	254	-	24	-	8	19844
	1985-86	2131*	5601	11028	155	-	26	-	8	18949

	1	2	3	4	5	6	7	8	9	10	11.
11. Maude		1984-85 1985-86	11551 12373	93772 10029	1588 2124	9522 235	2 -	- -	- -	- 7000	32040 31761
12. Umrec		1984-85 1985-86	2351 2406	7113 6958	9202 8658	4618 4461	- -	- -	- -	- -	23284 22483
13. Bhivapur		1984-85 1985-86	4222 4412	6794 6656	473 431	12961 12569	- -	- -	- +	+ -	24440 24038
14. Kuhi		1984-85 1985-86	8351 8592	8125 7951	2987 2661	12795 12741	- -	1 1	- -	- 2	32259 32148
TOTAL :		1984-85 1985-86	42845 43157	67249 65331	145229 140324	45529 35497	182 163	153 614	- -	22 7032	301209 292118

(Appendix 4 Contd.)

Tahsil	Year	Gram	Tur	Mug	Other pulses	Total pulses	Total food grain	SugAR cane	Spices.
1.	2.	3..	13	14	15.	16	17.	18	19.
1. Nagpur (urban)	1984-85	82	318	3	9	412	3396	--	46
	1985-86	89	299	7	177	572	3450	7	57
2. Nagpur (Rural)	1984-85	589	1696	575	532	3382	21743	--	569
	1985-86	799	1954	314	2925	5992	4004	-	649
3. Hingna	1984-85	506	2195	412	942	4055	22858	1	128
	1985-86	1196	2454	411	492	3853	21478	--	128
4. Kampti	1984-85	687	1371	56	900	3014	19931	--	2118
	1985-86	681	1274	18	546	2519	18581	69	2232
5. Katol	1984-85	1600	2620	1172	2207	7599	3073	20	343
	1985-86	1727	2564	1216	2262	7820	31449	22	350
6. Narkhed	1984-85	1894	2834	920	2331	7979	34208	87	329
	1985-86	2397	2766	812	4021	9090	35060	86	340
7. Saoner	1984-85	890	5117	350	754	7111	27138	15	244
	1985-86	931	5464	277	697	7369	28847	17	240
8. Kalmeshwar	1984-85	686	2467	343	1145	4641	25529	17	389
	1985-86	732	2405	511	68	4331	22485	6	365
9. Ramtek	1984-85	709	1770	106	475	3060	23719	51	566
	1985-86	857	2030	108	298	3293	23100	44	690
10. Parsjovani	1984-85	1163	5383	143	1542	8231	28075	3	1012
	1985-86	1055	5058	138	1597	7848	26797	31	901
11. Mouda	1984-85	1499	2455	24	2426	6404	38444	8	2092
	1985-86	1666	2263	20	485	4434	36195	17	2254

1.	2.	12	13	14	15	16	17	18	19
12. Umred	1984-85	1012	1637	228	7658	10535	33819	--	3638
	1985-86	1161	1777	202	8406	11546	34029	1	3810
13. Bhivapur	1984-85	980	1189	28	5738	7935	32375	--	6214
	1985-88	981	1192	38	6335	8546	32614	--	6068
14. Kuhi	1984-85	1220	2340	83	5181	8824	41083	--	7315
	1985-86	1285	2326	52	2111	5774	37922	22	8064
TOTAL	1984-85	13507	33392	4443	31840	83182	384391	202	25003
	1985-88	14908	33826	4124	31035	83893	376011	322	26148

(Appendix 4 contd.)

Tahsil	year	Fruits & vegetables	Misc. edible crops ⁰⁰	TOTAL edible crops.	Cotton	Other fibres.	Total fibres.	Ground-nut.	Linseed	Safflower.
1	2	20	21	22	23	24	25	26	27	28
1. Nagpur (Urban)	1984-85 1985-86	502 465	-- --	3944 3979	96 102	3 4	99 106	2 1	326 314	-- 1
2. Nagpur (Rural)	1984-85 1985-86	2075 2149	-- --	29387 26802	9560 10650	4 3	9564 10653	84 96	3026 3006	-- 1
3. Hingna	1984-85 1985-86	1456 1476	-- --	24443 23082	16048 15601	85 84	16133 15655	114 95	129 98	- -
4. Kamptli	1984-85 1985-86	2162 2135	13 12	24224 23029	712 746	14 20	726 766	18 13	4978 5001	2 2
5. Narkhed	1984-85 1985-86	3684 3921	-- --	38308 39407	13434 11392	296 204	13730 11596	5322 5962	237 258	5 2
6. Katol	1984-85 1985-86	4053 3937	-- --	36489 35758	9473 9179	156 183	9629 9362	4582 4770	147 81	- -
7. Saoner	1984-85 1985-86	2518 2890	2 1	29917 31995	5694 6508	12 10	5706 6518	1674 1926	485 362	1 -
8. Kalmeshwar	1984-85 1985-86	4380 4273	- -	30315 27129	7442 6325	18 6	7460 6330	1356 1536	528 414	- -
9. Ramtek	1984-85 1985-86	841 784	- -	25177 24618	4 121	83 94	87 215	15 13	1191 1513	10. 1
10. Parshivani	1984-85 1985-86	1747 1733	- -	30837 29462	2275 3292	89 54	2861 2446	321 203	2624 2021	- -

1.	2.	20.	21.	22.	23	24.	25.	26.	27.	28.
11. Mouda	1984-85	1289	10	41843	--	588	58	13	4609	10
	1985-86	1291	--	39757	2	32	34	12	4465	2
12. Umred	1984-85	377	36	37870	6621	21	6642	11	4254	--
	1985-86	387	--	38227	7119	7	7126	7	4263	--
13. Bhivapur	1984-85	543	--	39132	1074	25	1099	2	4323	--
	1985-86	459	--	39141	1130	33	1163	--	4716	1
14. Kuhi	1984-85	907	28	49333	6	243	249	1	5625	--
	1985-86	905	32	46945	9	281	290	2	5631	--
TOTAL :	1984-85	26534	89	436119	72439	1112	73551	13408	32273	28
	1985-86	26805	45	429331	71276	984	72260	14435	32148	10

(Appendix 4 contd.)

Total	Year	Sesamam	Other oil seeds	Total oil seeds	Tobacco	Other drugs and narcotics	Fodder crops	Misc non-food crops.	Total non-food crops-
1.	2.	2922x	30	31	32.	33	34	35.	36.
1. Nagpur (Urban)	1984-85	66	323	717	--	--	35	41	892
	1985-86	--	108	424	--	--	31	32	593
2. Nagpur (Rural)	1984-85	604	2246	5960	--	--	9	11	15544
	1985-86	--	3358	6461	--	--	16	10	17140
3. Hingna	1984-85	369	--	612	--	--	--	37	16782
	1985-86	--	683	875	--	--	6	21	16557
4. Kamptli	1984-85	1782	614	7387	--	--	1	3	8117
	1985-86	--	3173	8189	--	--	--	--	8955
5. Katol	1984-85	522	672	5923	--	85--	35	17	15604
	1985-86	--	1225	6076	--	--	30	26	15494
6. Narkhed	1984-85	221x	1236	7021	--	--	60	16	20821
	1985-86	--	500	6722	--	--	21	3	18342
7. Seoner	1984-85	726	364	3249	15	--	4	1	8975
	1985-86	--	1009	3297	10	--	6	1	9833
8. Kalmeshwar	1984-85	401	522	2807	--	--	3	4	10274
	1985-86	--	446	2596	--	--	1	14	8941
9. Ramtek	1984-85	319	110	1645	--	1	--	--	1733
	1985-86	--	768	2295	--	--	--	--	2510
10. Parshivani	1984-85	2038	5	4680	--	--	1	1	7051
	1985-86	--	1772	3996	--	--	1	1	6444.

1.	2.	29.	30.	31.	32.	33.	34.	35.	36.
1. Mauda	1984-85	1584	27	6243	---	--	9	--	6310
	1985-86	--	3846	8225	--	--	9	--	8268
12. Umred	1984-85	1418	8	5691	--	--	--	--	12333
	1985-86	--	1458	5733	--	--	3	19	12881
13. Bhivapur	1984-85	2096	18	6439	--	--	6	--	7544
	1985-86	--	1976	6693	--	--	7	32	7895
14. Kuhi	1984-85	1477	12	7115	--	--	--	--	7364
	1985-86	--	4852	10485	--	--	--	--	10775
TOTAL:	1984-85	13623	6157	65489	15	1	163	131	139350
	1985-86	--	24474	72067	10	-	131	159	146627

Source: District Statistical Abstract 1985-86 and 1987-88-

APPENDIX -5

Statement showing tahasilwise area under varous crops irrigated.

Taluka	Year	Rice	Wheat	Jawar	Other cereals	Total cereals	Gram	Other pulses	Total pulses	Sugarcane	
1..	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Nagpur (Urban)-	1984-85	202	506	1	30	739	9	1	10	--	3
	1985-86	182	478	-	49	709	22	10	32	7	9
2. Nagpur (Rural)	1984-85	60	1654	-	--	1714	112	--	112	--	53
	1985-86	61	1873	-	--	1935	199	3	202	--	--
3. Hingna	1984-85	4	1664	2	--	1620	194	2	196	1	30
	1985-86	4	1580	1	--	1585	183	18	201	-	44
4. Kampti	1984-85	776	1554	6	8	2344	82	43	125	-	371
	1985-86	686	1684	-	-	1585	183	18	201	-	44
5. Katol	1984-85	--	2559	-	1	2560	894	32	926	19	279
	1985-86	--	2413	-	--	2413	871	34	905	22	291
6. Narkhed	1984-85	4	3072	-	1	3077	884	33	917	87	277
	1985-86	--	2994	-	1	2995	1035	43	1078	86	267
7. Saoner	1984-85	9	2050	-	-	2059	370	137	507	15	129
	1985-86	5	2106	-	-	2111	390	66	456	17	129
8. Kalmeshwar	1984-85	-	2768	-	-	2768	509	162	671	17	187
	1985-86	-	2159	-	-	2159	532	24	556	6	209
9. Ramtek	1984-85	2830	433	1	-	3264	5	-	5	51	35
	1985-86	3406	685	-	497	4588	717	2541	3358	44	40
10. Parshivani	1984-85	731	1205	-	-	1936	44	13	57	2	149
	1985-86	770	1265	-	-	2035	21	18	39	31	94
11. Mouda	1984-85	8539	3321	122	-	11882	3	8	11	8	464
	1985-86	9251	3669	33	-	12953	12	11	23	17	594

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
12.Umred	1984-85	863	1655	5	-	2323	36	5	41	-	28
	1985-86	838	1674	4	-	2516	50	-	50	-	32
13.Bhivapur	1984-85	697	360	10	-	1067	19	6	25	-	65
	1985-86	818	616	9	-	1438	21	2	23	-	89
14.Kuhi	1984-85	3768	837	--	--	4605	9	--	9	-	65
	1985-86	3899	859	1	--	4759	5	--	5	22	137
TOTAL: in million											
	1984-85	164873	23288	147	40	41958	3170	442	3612	200	2165
	1985-86	19913	24055	48	556	44572	4130	2913	7043	321	2268

APPENDIX 5 CONTD.

Sr.No.	District/ Tahsil	Year	Tamarind	Total spices	Potato	Fruits & vege- tables.	Total food crops.	Cotton	Total fibres.	Groundnut	Total oil seeds.	Crops.
1.	2.	3.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.
1.	Nagpur(urban)	1984-85	--	5	--	359	1114	12	13	--	2	60
		1985-86	1	11	--	327	1080	14	14	--	1	53
2.	Nagpur(Rural)	1984-85	--	95	--	1215	3135	44	44	2	2	51
		1985-86	--	77	--	13099	3523	38	38	3	3	25
3.	Hingna	1984-85	--	35	--	1124 1124	2981	182	182	3	3	202
		1985-86	--	52	--	1120 1120	2958	109	110	6	17	129
4.	Kamptli	1984-85	--	35	--	1124 1124	2981	102	102	3	3	202
		1985-86	--	52	--	1120 1120	2958	109	110	6	17	129
5.	Katol	1984-85	--	312	--	3642	7460	218	218	9	9	256
		1985-86	--	319	--	3504	7163	98	98	3	4	138
6.	Narkhed	1984-85	5	316	5	3574	7975	324	346	16	19	381
		1985-86	8	310	8	3790	8259	255	268	11	13	293
7.	Saoner	1984-85	--	136	--	1472	4191	2	2	64	69	71
		1985-86	--	136	--	1826	4556	1	1	33	38	42
8.	Kalmeshwar	1984-85	2	221	--	3316	6994	28	28	13	23	55
		1985-86	1	234	--	2588	5543	24	21	10	15	39
9.	Pamtek	1984-85	--	50	--	311	3682	--	--	2	2	23
		1985-86	--	54	9	387	8431	120	211	12	2294	2506
10.	Parehivani	1984-85	--	161	--	842	2988	--	--	24	24	25
		1985-86	--	113	--	800	3018	4	4	69	69	74
11.	Mauda	1984-85	--	483	--	358	12742	--	--	--	11	20
		1985-86	--	612	--	162	13767	2	2	11	18	20

1.	2.	13	14	15	16	17	18	19	20	21	22
12. Umred	1984-85 1984-85	1 2	33	--	192	2588	49	49	7	7	56
	1985-86	21	56	---	187	2809	29	29	3	5	35
13. Bhivapur	1984-85	54	123	--	135	1350	--	--	-	1	2
	1985-86	61	152	--	134	1745	--	--	-	1	13
14. Kuhi	1984-85	1	67	--	194	4974	--	--	1	1	1
	1985-86	1	141	--	246	5173	--	--	1	1	1
TOTAL	1984-85	64	2451	5	17608	65941	659	882	151	177	1189
	1985-86	93	2563	17	17311	71810	694	756	172	2490	3400

Source: District Statistical Abstract 1985-86 & 1987-88

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Livestock in each tahsil of Nagpur District during the year 1978-82

S.No.	District/ Tahsil	Year	Cattle male over 3 years				Cattle female over 3 years.			
			Used for breeding & work	Work only	Others	Total	Inmilk	Dry & not calved even once	Others	Total
1.	2.	3.	4.	5.	6.	7.	8.....	9-	10.	11.
1.	Nagpur	1978	331	15514	200	16191	10577	14162	84	24859
		1982	291	15323	229	15981	9777	13580	25	23393
2.	Hingna	1978	9	13116	191	13401	5374	11192	12	16578
		1982	7	12118	126	12348	4213	11387	110	15710
3.	Kamptli	1978	23	11674	145	11905	3288	8005	43	11336
		1982	114	11334	132	11652	4578	2740	42	11386
4.	Katol	1978	35	15519	92	15756	6430	13185	56	19672
		1982	201	21180	228	21704	6752	13455	8	20232
5.	Narkhed	1978-79	224	17577	196	18120	6774	14997	200	21978
		1982	31	17679	163	17962	4746	17048	87	21973
6.	Saoner	1978	741	15361	337	16512	5340	15364	483	21261
		1982	275	15746	229	16302	5486	15474	184	21146
7.	Kalmeshwar	1978	2	12528	23	12590	6070	9393	3	15466
		1982	56	12941	224	13267	3949	12491	101	16910
8.	Ramtek	1978	738	14277	155	18447	5042	10898	59	16070
		1982	44	15144	144	15399	4803	10640	19	15498
9.	Parshivani	1978	719	13120	140	14056	5731	10891	155	17237
		1982	9	11742	64	11949	4563	10200	--	14783

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
10. Mouda	1978	394	17501	320	18223	4293	9461	17	13781	
	1982	438	16932	478	17913	5940	9339	136	15417	
11. Umred	1978	373	18641	326	19468	6166	12399	526	19486	
	1982	378	19045	240	19889	6264	14803	99	21243	
12. Bhivapur	1978	48	19128	250	19680	3934	10099	58	14393	
	1982	113	18320	215	19738	3892	12551	33	16476	
13. Kuhi	1978	194	23384	172	23764	6102	13428	31	19600	
	1982	56	22531	481	23110	6390	12754	102	19264	
TOTAL:	1978	3821	207350	2548	215123	75121	153794	1720	231717	
	1982	2013	210035	2949	216204	71375	160462	946	233431	

APPENDIX-6 contd.

Sr.no.	District/ Tahsil	Year	Bufaloes male over 3 year				Buffaloes female over 3 years.			
			Breeding only	Breeding & Work	other	Total	Inmilk	Dry & not calved even once	Others	Total.
1.	2.	3.	12.	13.	14.	15.	16.	17.	18.	19.
1. Nagpur	1978		183	12	10	242	7142	3978	15	11156
	1982		205	16	7	276	6700	3422	8	10138
2. Hingna	1978		109	15	4	151	1420	1508	1	2929
	1982		82	7	7	126	1078	1415	21	2519
3. Kamthi	1978		97	2	--	112	1065	790	54	1910
	1982		51	4	2	76	1005	771	4	1795
4. Katol	1978		116	5	6	166	2008	2170	8	4189
	1982		105	7	8	176	1352	2318	30	3728
5. Narkhed	1978		105	5	12	138	1886	1886	44	3803
	1982		75	9	4	136	1549	2383	4	3949
6. Saoner	1978		61	6	14	99	1052	1237	94	2397
	1982		68	-	21	89	800	1367	37	2204
7. Kalmeshwar	1978		153	3	--	175	1113	970	22	2107
	1982		48	5	4	82	649	1042	5	1724
8. Ramtek	1978		70	30	21	427	1124	1051	10	2255
	1982		84	47	17	394	867	1266	6	2162
9. Parshivani	*(& 1978		81	11	4	120	794	831	26	1730
	1982		60	7	14	95	666	842	--	1508

1.	2.	3.	12	13	14	15	16	17	18	19
10. Mouda	1978	56	22	--	164	1157	1113	1	2272	-
	1982	35	28	10	153	1422	1518	21	3085	
11. Umred	1978	98	12	3	147	1381	1471	44	2929	
	1982	116	18	10	215	1124	1715	7	2860	
12. Bhivapur	1978	89	3	3	101	626	877	14	1517	
	1982	64	3	5	98	656	965	12	1633	
13. Kuhi	1978	42	35	10	137	719	1361	2	2092	
	1982	37	7	5	69	736	936	1	1678	
Total :	1978	1259	161	87	2179	21487	19223	335	41286	
	1982	1030	158	112	1985	18604	19961	156	38983	

APPENDIX -6 CONTD.

Sr.No.	Tahsil/ District.	Year	Buffaloes		Total Be. me	Sheeps	Goats	Other live stock	Total live stock.	Poultry.
			Young Stocks	Total buffaloes.						
1.	2.	3.	20.	21	22.	23.	24.	25.	26.	27.
1. Nagpur		1978	5158	16553	81556	95	40159	1874	123684	05702
		1982	3716	14130	75297	47	45085	10427	130944	72252
2. Hingna		1978	1846	4926	48430	1441	19667	845	70383	24557
		1982	1131	3776	45635	3735	20265	4618	74307	23298
3. Kamptli		1978	1046	3068	36250	247	15704	773	52974	16605
		1982	894	2765	36383	113	16517	4030	57062	15654
4. Katol		1978	2650	7005	57690	608	17501	405	76204	16976
		1982	1928	5732	63627	647	18909	2435	85761	15177
5. Narkhed		1978	2818	6759	66147	5502	19478	1190	92317	17664
		1982	2379	6464	63625	4316	21291	4953	94328	16693
6. Saoner		1978	1682	4178	60574	892	24569	1624	87659	20816
		1982	1224	3511	58880	1064	24424	4765	89206	18301
7. Kalmehwar		1978	1326	3608	48531	2243	17968	1050	69792	17049
		1982	857	2663	47639	4379	21077	4234	77365	14506
8. Ramtek		1978	1908	4590	50687	7	16705	537	67936	37878
		1982	1706	4262	49637	--	16681	1710	68148	34575
9. Parshivani		1978	1165	3015	48392	274	15225	634	65065	13980
		1982	919	2522	42742	379	17834	1417	69347	15260
10. Meuda		1978	1757	4233	49884	7	18037	262	68150	26769
		1982	1551	4789	52635	4	17227	2102	73026	24128

1xx	2.	3	20	21	22	23	24	25	26	27
Umred		1978 1982	2030 1732	5106 4807	62094 64831	2989 3488	12036 19380	971 4265	78090 92074	19318 36881
12, Bhivapur		1978 1982	1025 1131	2643 24862	46277 51989	1513 2466	13138 14788	290 3076	61219 72409	13137 30219
13. Kuhi		1978 1982	1506 1023	3735 2770	64246 63095	753 11948	18069 25080	943 3551	84011 93060	38431 54872
Total:		1978 1982	25954 20091	69419 61059	721299 716015	16571 21802	240256 278558	11398 52583	997524 1070037	334882 377015

Source : District Statistical Abstract.

APPENDIX - 7

Agricultural Market Committee - Committees Statement of Commodities arrived and its value (30th June, 1988)

(Units = METRIC TONNES, Rs. in Thousand)

Sr. No.	Name of the regulated market.	Tahsil	Type of market.	Year	Annual arrivals-															
					Paddy(1)		Rice (2)		Wheat (3)		Jawar(4)		Cottqn(5)		Yur(6)		Mug(7)		Udio (8)	
					Units	Value	Units	Value	Units	Value	Units	Value	Units	Value	Units	Value	Units	Value	Units	Value.
2.	32	33222x	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1.	Nagpur	Nagpur	Agri. Produce Mkt. Committee	1984x 1974	--	---	27288	100927	5407	15875	9579	15666	6865	37217	12666	89346	--	--	--	--
2.	Hingna	Hingna	-do-	1986	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3.	Kampthi	Kampthi		1974	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4.	Katol	Katol	-do-	1940	--	--	--	--	43	108	3393	3392	2423	14538	76	494	2	8	1	7
5.	Narkhed	Narkhed	-do-	1969	--	---	---	---	1	22	2712	3773	169	886	42	275	--	--	--	--
6.	Saoner	Saoner	-do-	1973	---	---	2479	7729	3405	7210	4524	5902	1356	7379	2158	14358	2	7	1	5
7.	Kalmeshwar	Kalmeshwar	-do-	1974	--	---	--	---	--	--	793	1062	875	6660	--	--	---	--	--	---
8.	Ramtek	Ramtek	-do-	1--	--	---	--	---	--	---	--	---	---	--	---	---	---	---	--	---
9.	Parshivani	Parshivani	-do-	1986	---	---	---	---	---	---	--	---	678	3524	--	---	--	--	--	---
10.	Mauda.	Mauda	-do-	---	---	---	---	--	---	---	--	---	--	---	---	---	---	--	--	---
11.	Umred	Umred	do-	1974	9	24	1124	431	855	2222	791	1344	2769	20617	1823	12291	3	16	51	227

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.
12.	Bhivapur	Bhivapur	AFMC	1968	--	--	125	396	139	311	63	79	--	--	45	303	--	3	5	24
13.	Kuhi	Кुहियाण्ड Mandala	AFMC	1972	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total:					9	24	31016	109473	9850	25728	21845	31212	15136	90831	16810	117067	78	34	58	263

APPENDIX-7 (contd)

Sr.no.	Name of the regulated market		Tahsil	Annual arrivals															
				Gram(1)		Groundnut(10)		Sesinseed (10)		Tilli(*12)		Soyabain(13)		Dry chilli(14)		Orange(15)		Total	
				Unit	Value	unit	value	Unit	Value	Unit	Value	Unit	Value	Unit	Value	Unit	Value	Unit	Value
1.	2.	3.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	
1.	Nagpur	Nagpur	2215	11076	1815	12058	3120	28978	696	7071	11158	55660	19348	199350	9203	42045	109360	615269	
2.	Hingna	Hingna	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3.	Kampthi	Kampthi	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4.	Katol	Katol	11	55	1257	6283	--	--	51	638	257	1348	--	--	2020	7992	9534	34863	
5.	Narkhed	Narkhed	12	70	--	--	--	--	5	141	796	--	--	3072	20280	6149	26087		
6.	Saoner	Saoner	2415	1948	1312	8961	34	286	81	632	84	423	--	--	--	--	15849	55030	
7.	Kalmeshwar	Kalmn.	--	--	--	--	--	--	--	--	--	--	--	--	3763	35347	5431	43069	
8.	Ramtek	Ramtek	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9.	Parshivani	Parshivani	--	--	--	--	--	--	--	--	--	--	--	--	--	--	67982	3534	
10.	Mauda	Mauda	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
11.	Umred	Umred	387	1796	--	--	389	3530	171	1757	6238	30709	887	8807	--	--	15497	83771	
12.	Rhivapur	Rhivapur	22	99	--	--	44	380	4	45	966	4722	538	7276	--	--	1941	13632	
13.	Kuhi	Mauda	--	--	--	--	--	--	--	--	--	2269	12465	ex	12465	--	2269	12465	
													4369	12465	--	--	4369	12465	
Total:			--	3060	15044	4384	27202	3587	33174	1003	10342	18844	93658	25142	227898	16058	105664	166809	887720