

PERSPECTIVE PLAN OF BAGESHWAR DISTRICT-2021



May-2011



TOWN & COUNTRY PLANNING ORGANISATION
MINISTRY OF URBAN DEVELOPMENT
NEW DELHI

PREFACE

The Constitution (Seventy Third) Amendment Act, 1992 has ushered in a new era of decentralized and democratic process of planning and development, where the district is a key unit in the multi-level planning system. The Act mandates devolution of planning functions to the grass root level by assigning authority to the District Planning Committees (DPCs) to prepare Draft District Development Plans by consolidating the plans prepared by Panchayats and Municipalities.

The Town and Country Planning Organisation (TCPO) provides technical assistance to State Governments and Union Territories in the context of Urban and Region Planning. The Organization has prepared a number of Regional Development Plans in the past. The preparation of this Perspective Plan for Bageshwar District was taken up at the request of the Bageshwar District Administration.

The Perspective Plan for Bageshwar District-2021 provides a broad direction of development for various sectors and a spatial framework of the urban and rural settlements in the district indicating the future functional hierarchy of the settlements. The District Planning Committee may consider using this plan as a base for formulating a Draft District Development Plan.

I express my gratitude to the Bageshwar District Administration and the Town and Country Planning Department (Govt. of Uttarakhand) for providing the necessary data, inputs and interacting extensively with the TCPO team on a number of occasions. I thank Shri Udit Ratna, Town and Country Planner for having taken a lead in preparing the report from the inception of the study and ensuring completion.

May, 2011


(J.B. Kshirsagar)
Chief Planner

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12/5/11
(Udit Ratna)

Town and Country Planner

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The enactment of the 73rd and 74th Constitution Amendment Acts, (CAA) 1992, which are historic pieces of legislation, have opened vistas for democratic decentralization. The 73rd Amendment relating to rural areas has provisions for a three tier system of governance viz., Panchayat at village level, Intermediate at Block and Zila Parishad at District level. The 74th Amendment relating to urban local bodies provides for Nagar Panchayats, Municipal Councils and Municipal Corporations. One feature of the 74th Amendment is constitution of District Planning Committees (DPCs) by the State Govt. for consolidating of plans prepared by Panchayats and Municipalities in the district and preparation of the Draft District Plan. It also provides for integration and coordination of planning for urban and rural areas by various agencies involved in providing civic, transport, economic and social services.

1.1 Need for Perspective Plan

- (i) There exist imbalances at regional and district levels in terms of status of development, level of facilities and services, employment and economic opportunities. The efforts have been made in the past to achieve balanced regional development by formulating regional plans without statutory backing in most cases. District as a viable unit of planning has been taken up since Second Five Year Plan but efforts were mainly confined to split up the budgetary allocation from higher to lower level and consolidate the same at district level.
- (ii) These local plans although in line with the State and National Five Year Plans provided mainly allocation at sectoral level where spatial planning approaches were missing.
- (iii) Emphasis was more on beneficiary oriented projects rather than spatial development.

1.2 The objective of this exercise is to formulate a Perspective Plan for a horizon of 20 years that would enable development of all the blocks of the districts in the long term. Feasible solutions to major problems of each block and the strategies for sustainable development to bring the district at par with other developed areas of the state, has been attempted. It facilitates

optimizing the resources available under all the developmental programmes operational at the district/block level to provide the best possible and meaningful options for convergence/dovetailing of all such programmes to derive maximum benefit for the welfare of the rural poor especially with regard to generation of employment opportunities both in terms of wage and self employment through creation of need based optimum infrastructure at the Panchayat level in the short term and develop self sustaining Panchayats in the long term.

1.3 District Magistrate, Bageshwar District, Uttarakhand State vide his letter no. 133/PA/2004-05 dated September 2, 2004 has informed that Bageshwar has been created as new district of Uttarakhand State, which is having hilly topography. In order to ensure all round development of the district, TCPO was requested to select this district for preparation of a Perspective Plan. With this background the Perspective Plan for Bageshwar District has been prepared so that DPCs may benefit from this exercise. The planning problems and key sectors of local area may vary from district to district. So considering the spirit of 73rd and 74th CAA, draft development plan at Gram Panchayat/Ward level has been prepared first.

By collating and analyzing the required socio-economic, human resources and financial data, development issues have been identified and planning policies and strategies formulated. The perspective plan would be a guiding factor for future development of District.

- 1.4** The main objective of the Perspective Plan for Bageshwar District are:
- (i) To assess the availability of physical, natural, infrastructure and human resources.
 - (ii) To determine the key issues for the development of the area.
 - (iii) To chalk out the spatial strategies for optimum utilization of resources.
 - (iv) To workout strategy for planned long-term development of the district.
 - (v) To prepare a perspective infrastructure plan comprising physical, socio-economic and infrastructure development needs of the district.

1.5 Scope of the Plan

The Perspective Plan is a long-term development plan integrating various sectors of the district economy. Physical and socio-economic data pertaining to community blocks has been analyzed and integrated at the district level to determine the key issues, which need focused attention. The Plan has taken into consideration the socio-economic variation in the three blocks of the Bageshwar District viz. Kapkot, Bageshwar and Garud-Baijnath.

It has also suggested the proposed settlement hierarchy which may form the base for providing various facilities and amenities in urban and rural areas.

1.6 Methodology

Steps followed in preparation of the Perspective Plan are listed hereunder:

- (i) **Collation and analysis of baseline data**
- (ii) **Identification of issues for development**

The identification of issues for development involves study of the present scenario, analysis of the past trends of development, identification and prioritizing the problems and potentials, evaluation of ongoing/committed projects and programmes, and formulation of sectoral policies etc.

- (iii) **Plan formulation**

This is based on identification of thrust areas developing planning concept, and formulating strategies and policies.

1.7 Limitations

- (i) The Perspective Plan is based on the secondary data collected from various departments. The details at micro level are not highlighted. Unit of study is limited to block level.

2.1 Physical Setting

The District of Bageshwar was carved out of Almora district in 1997, which lies in the northern part of Uttarakhand in Kumaon region. The district is spread over an area of 1687.8 sq km. It lies between 29° 42' 40" to 30° 18' 56" North latitude and 79° 28' 17" to 80° 9' 42" east longitude. It is surrounded by district of Pithoragarh in the east, district of Chamoli in the west, Himalayas in the North and the district of Almora in the South (Drawing 2.1).

2.2 Climate and Rainfall

The valley regions of the district are hot and humid during summer, while the hilly regions experience temperatures below zero degree during winter. The northern part of the district remains covered with snow for four to five months. The area experiences a mean annual rainfall of 1117.8 mm (2006). The agro-climatic zone in the district is located in the lower Himalayan Zone. The altitude of the district ranges from 600-4800 m.



Photo 2.1: Drainage view of Bageshwar

On the basis of altitude the district is sub divided into the following six regions:

- i) Cold Tropical- sub tropical region: 600-1200 m
- ii) Warm Temperate region: 1200-1800 m
- iii) Cool Temperate region: 1800-2400 m.
- iv) The Cold region: 2400-3000 m.
- v) Alpine region: 3000-4000 m.
- vi) Glacier region: 4000-4800 m.

2.3 Drainage Pattern and River System

Bageshwar town is situated at the confluence of rivers Saryu, Gomti and the latent Bhagirathi. From Gwaldum-Kausoni range river Virchuwa and river Gomti, Garud Ganga and their tributaries emerge from Mount Garwalvunga and meet at Bajnath. The main tributaries of Saryu are Lahur, Pungar, Kanalgar, Gassu Gorge (Karmi ravine), Rayawati Ganga, and Khir Ganga, which join Saryu at Balighat, Harsila Asaun, and Rethabagar respectively. From the south slope of shikhar (Mount having famous temple, near Sama) Pungar, from North Slope Khir Ganga and from Shamadhura region Rawati Ganga, Karmi from Karmi area, flow as small tributaries in the region. Saryu originates from Surmul, which is 40 km from Saung. The river Pindari originates from Pindari glacier, Kafni tributary originating from Kafni glacier and tributary from Sunderdhunga joins the Pindari River at Dwali and Khati respectively. Later Pindari enters Chamoli and joins Alaknanda at Karnprayag. The majority area of the district is spread over the two catchments of river Gomti and Saryu, while some villages are located in Pindar valley and some in the East Ramganga catchment.

2.4 Bageshwar town is known for its scenic beauty, glaciers, rivers and temples. It is revered as the pious land associated with Lord Sadashiva, the redeemer of all sins. The town and districts is flanked by the Bhilwswar and Nileshwar mountains in the west and surrounded by Suraj Kund in the north and Agni Kund in the south, this land of Lord Shankar is of great religious significance.

2.5 The Temple of Baijnath situated here is venerated by one and all. Devotees gather here on every Monday in the holy month of Sharavan to worship the Lord, who is also known as the remover of sorrows. During the fairs of Uttarayani and Shivratri, it becomes very difficult to control the number of devotees who come to attend these fairs from far and near.

2.6 Soil type

The district has vivid geological structure (Drawing 2.2). This has impacted the distribution of soils in the district. There are mainly four types of soils in the district.

- i) Alpine zone soil: These soils are mostly granite and sandy loam in nature. The pH ranges from 5.5 to 6.5. The elevation varies from 3000m –4000m.
- ii) Cool Temperate and Sub-Tropical Zone soil: These soils are mostly gravely and at few places sandy loam is also found. The elevation ranges from 800m – 3000m.
- iii) Mid-hill zone soil: Soils are mostly sandy loam, but have enough slopes and are warm 1200 m to 1800 m
- iv) Lower valley zone soil: Soils of this zone are quite deep and fertile. These soils are suitable for agriculture.

3.0 Demographic profile

Analysis of demographic characteristics such as growth of population, its distribution, density, sex ratio, literacy rate, occupational pattern is essential to assess the state of human resource development for preparation of a Perspective Plan.

As per 2001 Census, the total geographical area of the Bageshwar district was 1687.80 Sq .km, accounting for 3.3% of the total area of the State and 2.94% of the total population. It is one of the least populated districts in the State.

According to 2001 Census, total population of the district was 2, 49,462 comprising 1,18,510 males and 1,30,952 females. Subsequently, 8 villages having a population of 2299 were transferred from Bageshwar district to Almora district ¹, thereby its population reduced to 2, 47,163. District is mainly rural having as much as 96.84 per cent rural population and the remaining 3.16% is urban. Bageshwar is the only town in the district, having a population of 7803.

In 2007, the estimated population of the town was 9592². Bageshwar is one of the backward districts of the State with sparse population and slow growth rate in population. This may be attributed to hilly topography, lack of employment opportunities, out-migration of males, poor economic development, inadequate transport system in the District etc.

3.1 Population Growth

Bageshwar District had a total population of 1.64 lakhs in 1971 which increased to 2.47 lakh in 2001 and 2.62 lakhs in 2007. During the period 1971-81, 1981-91, and 1991-2001 it registered a decadal growth of 20.92%, 13.69% and 9.38% respectively (Table 3.1). The growth of rural population was less than the total population registering 8.70% as against 9.38% for the

1. Statistical Handbook, Bageshwar – 2006.

2. Office of Economic and Statistical Officer, Bageshwar.

District as a whole. However, the district experienced highest decadal growth rate of 20.92% during 1971-81 and similar trend was observed in case of rural population, which showed an increase of 21.45% during the same period. The growth of urban population was very significant during 1981-91 and 1991-2001, though the absolute increase of urban population remained less.

Table 3.1
Decadal growth of population in Bageshwar District

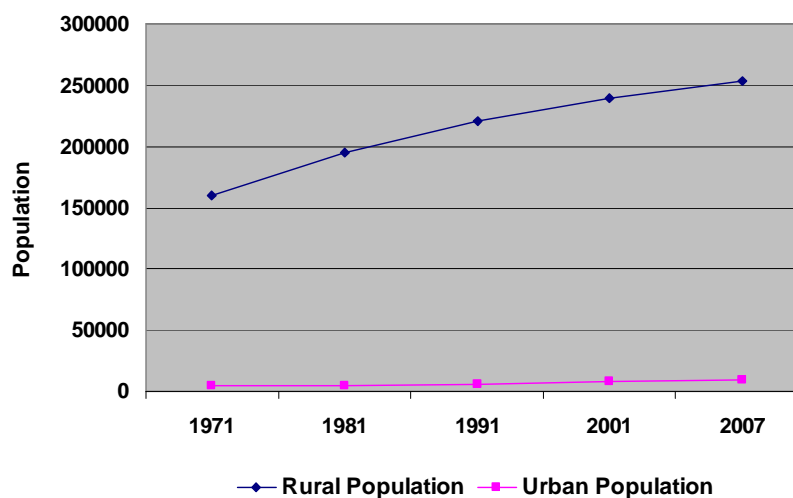
Year	Total Population	% Growth	Rural Population	% Growth	Urban Population	% Growth
1971	164359		160045		4314	
1981	198752	20.92	194384	21.45	4368	1.25
1991*	225964	13.69	220192	13.27	5772	32.14
2001*	247163	9.38	239360	8.70	7803	35.19
2007*	262485	6.12	252893	5.65	9592	22.93

Source: Statistical Handbook, Distt. Bageshwar.

* Office of the Economic & Statistical Officer, Bageshwar.

Figure 3.1

DECADAL GROWTH OF POPULATION



The block wise distribution of rural population in 2001 indicates that Bageshwar block had highest concentration of rural population (41.40%), followed by Kapkot (32.20%) and Garud-Baijnath with 26.40% population. The block wise composition of rural and urban population in the district during 1991-2007 is given in table 3.2.

Table 3.2
Block wise Rural & Urban Population in Bageshwar District

Sl. No	Name of Block	Pop.	1991			2001			2007		
			Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
1	Kapkot	T	70407	-	70407	77018	-	77018	82137	-	82137
		M	34463	-	34463	36529	-	36529	38489	-	38489
		F	35944	-	35944	40489	-	40489	43648	-	43648
2	Bageshwar	T	92085	5772	97857	99063	7803	106866	103686	9592	113278
		M	44487	3185	47672	47149	4311	51460	48872	5299	54171
		F	47598	2587	50185	51914	3492	55406	54814	4293	59107
3	Garud-Bajjnath	T	57700	-	57700	63266	-	63266	67070	-	67070
		M	27710	-	27710	29377	-	29377	30450	-	30450
		F	29990	-	29990	33889	-	33889	36620	-	36620
Total Population of the District			225964			247163*			262485		

* Including 13 persons residing in forest area (8-Male, 5-Female)

Source: Office of the Economic & Statistical Officer, Bageshwar

3.2 Density of Population

It is observed that Bageshwar district is sparsely populated. The average density of population in the district is 146 persons per sq.km as per 2001 Census, (Table 3.3). The corresponding figure for the State on the whole was 166 in 2001, which is more or less similar to the District level density. The density of the district is slightly less than the population density for Kumaon (169 persons per sq.km.) and Garhwal region (151 persons per sq.km.) in 2001. The population density and the existing settlement pattern in the District are given at Drawing No.3.1 and 3.2 respectively.

The population density in the Kapkot block was 130 persons per Sq.km. which is the least among the 3 blocks of the district. It is because of forest cover and hilly terrain. Population density in Garud-Bajjnath was 446 persons per sq. Km. which is the highest in Bageshwar District.

Table 3.3
Density of Urban & Rural Population 2001

Sl.No.	Name of Blocks	Area in Sq.km.	Population	Density (Persons per sq.km.)
1.	Kapkot	593.5	77018	130
2.	Bageshwar	288.3	99063	344
3.	Garud Baijnath	141.7	63266	446
4.	Urban	5	7803	1561
Total		1687.8*	247163**	146
Total State		51125	8489349	166

* includes 659.30 Sq km of forest area.

** includes population of 13 persons in forest area.

Source: Statistical Handbook, District Bageshwar - 2006.

Figure 3.2
BLOCKWISE POPULATION

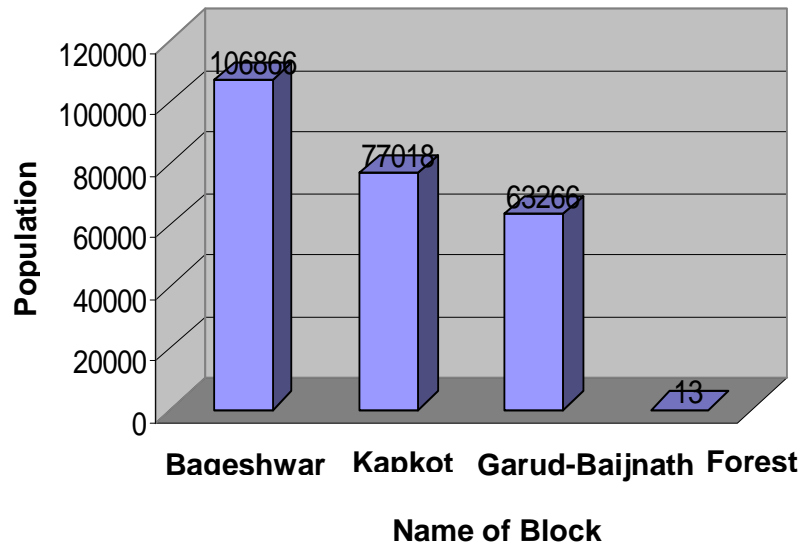
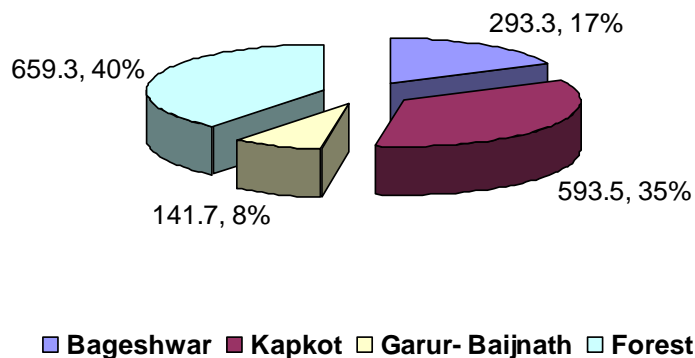


Figure 3.3

BLOCK WISE AREA OF BAGESHWAR DISTRICT



3.3 Projected Population of Bageshwar District

For the projection of population; it is necessary to have time series data. Bageshwar district has been created as a new district of Uttarakhand in 1997. The village boundaries of the Bageshwar district have also changed frequently. Considering these, the population of 2001 Census has been considered as the base. The population of the district has been projected by using Growth Rate Method.

Total projected population for urban and rural areas of Bageshwar district is given in the table 3.4. It is estimated that the total projected population of Bageshwar district will be around 2.7 lakhs in 2011 and 2.94 lakhs in the year 2021.

Table 3.4
Projected population of Bageshwar District

Year	Population	% Growth (Decadal)	Rural Population	% Growth (Decadal)	Urban Population	% Growth (Decadal)
2011	271616	9.89	261069	9.06	10547	35.16
2021	294442	8.40	281507	7.83	12935	22.64

Figure 3.4
Projected population of Bageshwar District

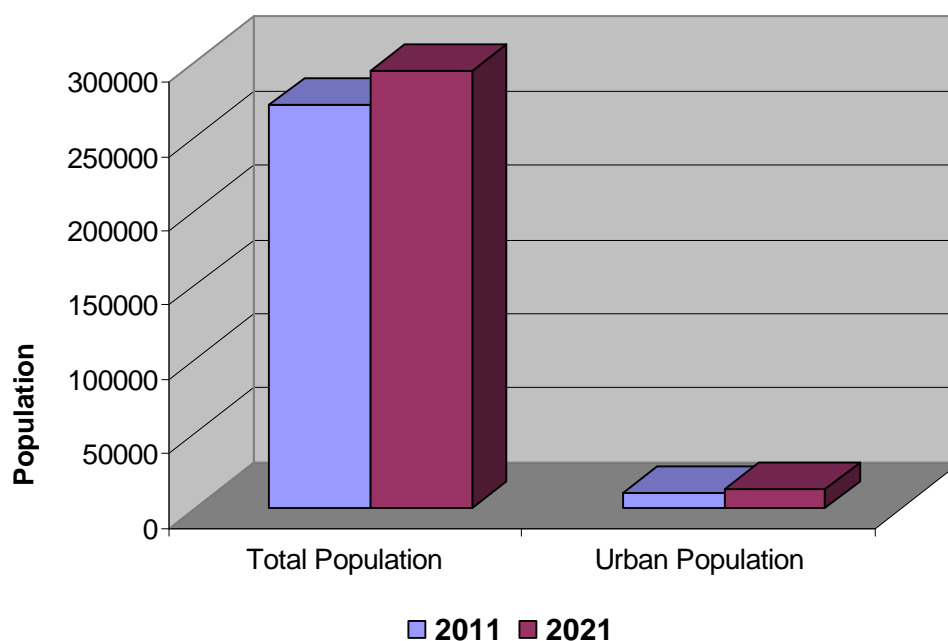


Table 3.5
Blockwise Projected Population of Bageshwar District

Sl. No.	Name of Block	Pop.	2011			2021		
			Rural	Urban	Total	Rural	Urban	Total
1	Kapkot	Total	85070	-	85070	92401	-	92401
		Male	39496	-	39496	42012	-	42012
		Female	45574	-	45574	50389	-	50389
2	Bageshwar	Total	106586	10547	117133	113837	12935	126772
		Male	49968	5827	55795	52709	7149	59858
		Female	56618	4720	61338	61128	5786	66914
3	Garud-Baijnath	Total	69413	-	69413	75269	-	75269
		Male	31135	-	31135	32848	-	32848
		Female	38278	-	38278	42421	-	42421
Total			271616			294442		

Note: Bageshwar town is the only urban area in the district.

The block wise male, female, rural and urban projected population of Bageshwar district for year 2011 and 2021 is given in Table 3.5. It is estimated that Bageshwar District will continue to dominate with rural population, where percentage of total rural population would be 96.12% which was 95.61% in 1991 and 2001 respectively. Bageshwar town will continue to be the only major town in the District by 2021.

3.4 Level of Urbanization

Level of urbanization is an indicator of development. Bageshwar district has low level of urbanization as compared to the State as a whole. Bageshwar is the only urban settlement in the District having a population of 7803 in 2001. The level of urbanization is increasing over the years. It was 1.25% during 1971-81, which increased to 32.14% during 1981-91 and further to 35.19% during 1991-2001. However, in terms of absolute growth of urban population, it is very low.

In 1961, the area of the town was 54 hectares and its population was 2189 persons. Bageshwar was declared a town in 1955, under the UP Town Area Act, 1914, and the first Town Area Committee was constituted in 1957. Bageshwar registered the highest growth rate of 32.14% during 1981-91. However, in terms of absolute growth of urban population, it is very low. Initially the town had 5 wards. Subsequently, area of the municipality was increased by adding 2 more wards, thus the total wards in the Bageshwar town are 7 in number. The ward wise population for year 2001 is given at Table 3.6.

3.5 Sex Ratio

Sex ratio is an important indicator of socio-economic development. Higher sex ratio denotes higher out-migration of male population and lower sex ratio is the sign of immigration of male population. Better economic opportunities have a dominant effect on migration and vice-versa. The sex ratio in Bageshwar district was 1105 females per 1000 males as per 2001 Census. In comparison to this, Uttarakhand state had a sex ratio of 962 in

2001. However, among the blocks, the Bageshwar block has least sex ratio of 1101 during the year 2001(Table 3.7).

Table 3.6
Ward wise Population of Bageshwar town - 2001

SI.No.	Name of Ward	Population
1.	Vendi Madhav Ward	1538
2.	Bhileshwar Ward	633
3.	Dug Bazar	1530
4.	Thakurdwara	1012
5.	Bagnath	673
6.	Ghatabgarh	736
7.	Jwaladevi	1681
Total		7803

Source: Municipal Council, Bageshwar

Table 3.7
Block wise Rural Sex Ratio of Bageshwar District- 2001

SI.No.	Block	Person	Male	Female	Females/ 1000 males
1.	Kapkot	77018	36529	40489	1108
2.	Bageshwar	99063	47149	51914	1101
3.	Garud Baijnath	63266	29377	33889	1154
Total		239347	113055	126292	1117

Source: Statistical Office, Bageshwar.

As per Economic & Statistical Office, Bageshwar, the sex ratio of Bageshwar district in all the blocks is increasing since 2001 onwards. More number of females in Bageshwar indicates that there is outmigration of male population from the District to other districts/town for job, education, etc.

However, Garud Baijnath block in the District witnessed highest sex ratio of 1154 in 2001 which has further increased to 1202 in 2007 (Table 3.8).

Table 3.8
Block wise Rural Sex Ratio of Bageshwar District: 2007

Sl.No.	Block	Person	Male	Female	Females/ 1000 males
1.	Kapkot	82137	38489	43648	1134
2.	Bageshwar	103686	48872	54814	1121
3.	Garud Baijnath	67070	30450	36620	1202
Total		252893	117811	135082	1146

Source: Statistical Office, Bageshwar.

3.6 Literacy

Literacy is the first and foremost factor contributing directly to human resource development and quality of life, in which Uttarakhand is at 14th position in the country.

According to the 2001 Census, literacy rate in the Uttarakhand was 60.14% as against all India average of 65.38%. Male and female literacy rates were 69.55 percent and 50.36 percent respectively in the corresponding year. As compared to the State, Bageshwar district occupies 8th position (total 13 districts) in the State as per 2001 Census. The literacy rate in the District was 59.52 percent. The male and female literacy for the district was 87.64 per cent and 57.03 percent respectively in 2001 (Table 3.9).

Within the District, the picture regarding literacy varies marginally from one block to other. The blockwise male, female literacy is depicted in Table 3.9. The male literacy rate in all the three blocks is more or less uniform. It is 84.26% in Kapkot, 89.51% in Bageshwar and 88.27% in Garud Baijnath. Literacy of females in three blocks is 49.35%, 61.32% and 56.83% respectively in Kapkot, Bageshwar and Baijnath blocks. It reveals that the district is educationally backward in comparison to the State.

The Bageshwar block is having the higher percentage of literates for both males and females in comparison to other two blocks of the District. The

higher literacy may also be attributed to availability of educational facilities in close vicinity, good transportation facility and high level of awareness for education among the people, etc. The females in the Kapkot block recorded the lowest literacy in the district. The lower literacy rates amongst the females indicates that there are still very less opportunities for education of girls in the District which may be due to lack of educational infrastructure at village level, distance from the home to school and social taboo for not sending the girl child to the school and involvement of females in household work at an early age.

**Table 3.9
Block wise Literacy of Bageshwar District – 2001**

Year	Literate Persons			% of literates to total population	Percentage of Literates	
	Male	Female	Total		Male	Female
Kapkot	24844	16659	41503	16.79	84.26	49.35
Bageshwar	34949	27230	62279	25.19	89.51	61.32
Garud- Baijnath	21159	16355	37514	15.19	88.27	56.83
Total rural	80952	60344	141296	57.17	87.52	56.34
Urban	3381	2449	5830	2.35	90.77	81.61
Total District	84341	62795	147136	59.52	87.64	57.03

Source: Statistical Handbook, District Bageshwar, 2003.

District wise population and literacy rates of Uttarakhand are given at Table 3.10. Female literacy rate is very low in Bageshwar as compared to Nainital, Pauri and Dehradun districts which have State level higher educational institutions. The table reveals that the gender gap in literacy is still an issue to be addressed in Uttarakhand, wherein focused interventions are required especially in the cities and remote habitations. Factors such as location, proximity to urban centers, caste composition, settlement pattern, level of socio-economic development, attitude of villagers towards literacy and females' education, availability of school and teachers, etc. are the important factors which have affected the literacy rate particularly in rural areas.

Table 3.10
District wise Population and Literacy rates- 2001

S.No.	State/District	Total population	No. of Literates	Literacy in %
	UTTARAKHAND	8489349	5105782	60.14
GARHWAL REGION				
1	Uttarkashi	295013	161161	54.78
2	Chamoli	370359	237354	64.29
3	Rudraprayag	227439	141078	62.02
4	Tehri	604447	337816	55.87
5	Dehradun	1282143	876441	68.52
6	Pauri	697078	461675	66.25
KUMAON REGION				
7	Haridwar	1447187	754948	52.27
8	Almora	630567	392640	62.28
9	Bageshwar	247163*	147136	59.52
10	Nainital	762909	508731	66.68
11	U.S. Nagar	1235614	659165	53.39
12	Pithoragarh	462289	296362	64.13
13	Champawat	224542	129947	57.89

Source: Census of India, 2001

*Total population of the district is 249462, which includes population of eight villages.

3.7 Occupational Structure

As per 2001 Census, 33.41% of total population was classified as main workers. Details of main workers, marginal workers and total workers in Bageshwar district are given in the table 3.11. Kapkot block recorded the highest percentage of main workers (12.83%) which may due to more cultivation area and household industries in the block. The percentage of total workers in Bageshwar block is 17.84% which is maximum. This is followed by Kapkot 15.81% and Garud Baijnath 12.96%. The percentage of marginal workers in the District is recorded highest (5.39%) in Bageshwar block and lowest in Kapkot Block 2.98%. In Kapkot block more workers are involved in the main activities, whereas in Bageshwar block most of workers are involved in the marginal activities.

Table 3.11**Block and Category wise Workers in Bageshwar District - 2001**

Sl. No.	Workers Category	Persons				Total	% of Total Population
		Male	% of Male	Female	% of Female		
1.	Main Workers	37980	32.36	44611	34.38	82591	33.41
	Kapkot	13537	11.53	18156	13.98	31693	12.83
	Bageshwar	15047	12.81	15719	12.12	30766	12.44
	Garud- Baijnath	9396	8.02	10736	8.28	20132	8.14
2.	Marginal Workers	12919	11.01	19702	15.18	32621	13.19
	Kapkot	3510	2.99	3855	2.97	7365	2.98
	Bageshwar	5013	4.27	8319	6.41	13332	5.39
	Garud- Baijnath	4396	3.74	7528	5.80	11924	4.82
3.	Total Workers	50899	43.36	64313	49.55	115212	46.61
	Kapkot	17047	14.52	22011	16.95	39058	15.81
	Bageshwar	20060	17.09	24038	18.53	44098	17.84
	Garud- Baijnath	13792	11.75	18264	14.07	32056	12.96

Source: Statistical Office, Bageshwar

Table 3.12**Blockwise Occupational Pattern (Main Workers)-2001**

Sl. No	Name of Block		Category of Main Workers				Total Main Workers
			Cultivators Labours	Agriculture Labours	H.H. Industries Labours	Other Labours	
1	Kapkot	Total	26815 (84.60)	300 (0.95)	826 (2.61)	3752 (11.84)	31693
		Male	9554	159	479	3345	13537
		Female	17261	141	347	407	18156
2	Bageshwar	Total	21411 (69.59)	237 (0.78)	508 (1.65)	8610 (27.98)	30766
		Male	6712	178	398	7759	15047
		Female	14699	59	110	851	15719
3	Garud- Baijnath	Total	14698 (73.07)	304 (1.50)	285 (1.40)	4845 (24.03)	20132
		Male	4517	203	212	4464	9396
		Female	10181	101	73	381	10736

Source: Statistical office, Bageshwar

Details of Blockwise occupational pattern for Main Workers and Marginal

Workers are given at table No. 3.12 & 3.13 respectively

Table 3.13
Blockwise Occupational Pattern (Marginal Workers)-2001

Sl. No	Name of Block		Category of Marginal Workers				
			Cultivators Labours	Agriculture Labours	H.H. Industries Labours	Other Labours	Total Marginal Workers
1	Kapkot	Total	5352 (72.67)	446 (6.06)	489 (6.64)	1078 (14.63)	7365
		Male	2261	207	211	831	3510
		Female	3091	239	278	247	3855
2	Bageshwar	Total	9831 (73.73)	1105 (8.28)	136 (1.04)	2260 (16.95)	13332
		Male	2837	456	79	1641	5013
		Female	6994	649	57	619	8319
3	Garud-Bajnath	Total	9640 (80.84)	1163 (9.77)	123 (1.03)	998 (8.36)	11924
		Male	3130	372	67	827	4396
		Female	6510	791	56	171	7528

Source: Statistical office, Bageshwar

In spite of the fact that Bageshwar ranked number one in terms of work force participation rate among all the districts of Uttarakhand during 1991 and 2001 (Table 3.14), it is still a backward district and has few job opportunities.

Table 3.14
Ranking of Districts by Work Participation Rate: 1991 and 2001

No	District	WPR*		Rank	
		1991	2001	1991	2001
1	Bageshwar	52.39	46.61	1	1
2	Almora	45.09	46.52	8	2
3	Uttarkashi	50.66	45.99	2	3
4	Rudraprayag	47.36	44.41	4	4
5	Tehri Garhwal	45.28	43.89	7	5
6	Chamoli	46.61	43.34	6	6
7	Pithoragarh	47.93	42.99	3	7
8	Champawat	47.30	40.18	5	8
9	Garhwal	39.20	38.79	10	9
10	Nainital	40.79	36.70	9	10
11	Udham Singh Nagar	37.27	31.88	11	11
12	Dehradun	34.54	31.20	12	12
13	Haridwar	29.50	29.51	13	13

* Work Participation Rate
Source : Census of India, 2001.

The ranking of the District in terms of male workers participation and female workers participation rates are given below in Table 3.15 and 3.16 respectively.

Bageshwar was ranked 1st out of 13 districts of State although participation rate declined during 1991 to 2001. It was 52.39% in 1991 and dipped to 46.61% in 2001. This may have occurred due to corresponding growth of economic opportunities. In terms of male participation ratio Bageshwar is ranked at 11th position in the State, which may be related to huge outmigration of male workers to other towns of the State/outside State.

As is the case of total participation ratio, male participation ratio has also reduced from 48.69% in 1991 to 43.36%. The female work participation in Bageshwar district as shown in the table 3.16 is 55.91 as per 1991 Census was the highest in the State and has decreased to 49.55% in 2001. The female workforce is the main contributor in the agriculture and household industries like knitting of woolens, carpets, dari making, basket making and in collecting forest produce etc. Bageshwar is the only district in the State where industrialization/industrial activities are in the marginal sector. The status of workers engaged in non-agricultural activities for all the districts in Uttarakhand is given in Table 3.17.

Table 3.15
Ranking of Districts by male work participation rate

Rank in 2001	District	Male Work participation rate:		Rank	
		1991	2001	1991	2001
1	Udham Singh Nagar	53.28	48.58	1	1
2	Nainital	51.23	48.46	4	2
3	Uttarkashi	51.99	48.25	2	3
4	Dehradun	51.24	48.00	3	4
5	Haridwar	51.00	47.81	5	5
6	Tehri Garhwal	44.69	45.18	10	6
7	Bageshwar	48.69	43.36	7	11
8	Almora	42.70	44.70	12	7
9	Rudraprayag	44.07	44.47	11	8
10	Champawat	49.75	43.55	6	9
11	Pithoragarh	47.14	43.43	8	10
12	Chamoli	46.58	43.33	9	12
13	Garhwal	41.94	40.83	13	13

Source : Census of India, 2001.

Table 3.16**Ranking of Districts by female work participation Rate 1991 and 2001**

Rank in 2001	District	Male/Female Work participation rate:		Rank	
		1991	2001	1991	2001
1	Bageshwar	55.91	49.55	1	1
2	Almora	47.27	48.10	5	2
3	Rudraprayag	50.36	44.36	2	3
4	Uttarkashi	49.21	43.60	3	4
5	Chamoli	46.64	43.35	6	5
6	Tehri Garhwal	45.84	42.66	7	6
7	Pithoragarh	48.73	42.56	4	7
8	Garhwal	36.61	36.95	9	8
9	Champawat	44.69	36.89	8	9
10	Nainital	28.96	23.72	10	10
11	Udham Singh Nagar	18.72	13.38	11	11
12	Dehradun	14.75	12.25	12	12
13	Haridwar	4.10	8.42	13	13

Source : Census of India, 2001.

Dehradun occupies number one position and accommodates nearly 3/4th of the workforce engaged in non-agricultural work. Bageshwar is placed at the

Table 3.17**Ranking of Districts by percentage of workers engaged In non-agricultural activities: 2001**

Rank	District	Percentage workers engaged in non-agricultural activities
1	Dehradun	74.35
2	Haridwar	58.31
3	Nainital	49.36
4	Udham Singh Nagar	44.65
5	Chamoli	34.26
6	Garhwal	31.39
7	Pithoragarh	31.13
8	Tehri Garhwal	28.95
9	Champawat	28.07
10	Almora	23.84
11	Rudraprayag	23.69
12	Uttarkashi	22.99
13	Bageshwar	22.26

Source: Census of India, 2001

bottom and accommodates only 22.26% of its workers in non-agricultural activities. This indicates that agriculture is the main stay of economy in Bageshwar. In spite of agriculture being the major occupation it is not sustainable and as such large numbers of people migrate to other cities for jobs.

Level of economic development of different regions within the district, availability of opportunities besides willingness to work especially among women, initiative, influence and entrepreneurship evidenced by the men folk in general are the important factors that determine the engagement of workers as main workers or marginal workers.

4.1 On the basis of the geographical conditions, the district can be sub-divided into two parts comprising valley area that spreads between 960m to 1850m above MSL. It includes Bageshwar town, Garud and Kapkot block headquarters. The other part includes glaciers like Kafni, Pindari, Sundardunga and many other unnamed glaciers that lie between 1850m to 3860m. Mount Nanda Devi (7822m), Trishul (7175m) and Nandakhot (6865m) lie in the Himalayan range of the District.

More than half the area of Bageshwar is covered with forests, while other half is put to different landuses. Details about the different category of land utilisation are given in the Table 4.1.

**Table No. 4.1
Land Utilisation in Bageshwar District-2006**

No.	Land utilisation category	Area in hectares	Percentage
1	Forest area	110160	51.58
2	Cultivable waste	16874	7.90
3	Barren land	5087	2.38
4	Uncultivable land	6829	3.19
5	Land use other than agriculture	4717	2.23
6	Pasture	27486	12.87
7	Area under parks, gardens and trees	20671	9.68
8	Net sown area	21718	10.17
	Total area	213542	100.00

Source: Statistical Handbook, Bageshwar - 2006

Block wise land utilization shown in Table 4.2 reveals a different picture as discussed in the following section. Kapkot block is having 65,885 hectare area comprising 61.52% of the block under forests, while in Garud Baijanath and Bageshwar it is 43.80% and 20.71% areas respectively. Extent of 5119 ha area in Bageshwar block is classified as uncultivable land which works out to 8.81% of the total block area. Pasture land amount to 16,071 ha, 9361 hectare and 2054 hectare accounting for 15.01%, 16.11% and 7.29% is the

important land use category in Kapkot, Bageshwar and Garud Baijnath block respectively (Figure 4.1).

Of the total area, 51.58% land is under forest. Despite animal husbandry being an important occupation in hilly region; the area under pastureland is only 12.87%. There is 7.90% of cultivable barren lands in the district. Area under the category of parks, gardens and orchards is 9.68%. The district is having 3.19% land under uncultivable use. The net sown area which is under arable category in the District is 10.17 per cent. Thus it can be concluded that the blocks with thickly forested area have low percentage of cultivable land. The agriculturally developed blocks are Garud Baijnath and Bageshwar which have large area of land under cultivation with good irrigation facilities. Due to its large forest cover, rugged topography and unsuitable climate Kapkot block has very little area suitable for cultivation. Attempts should be made to bring cultivable waste land under arable land through adoption of irrigation mechanisms and proper agriculture planning.

Table 4.2
BLOCK WISE LAND UTILIZATION – 2006

(Area in hectare)

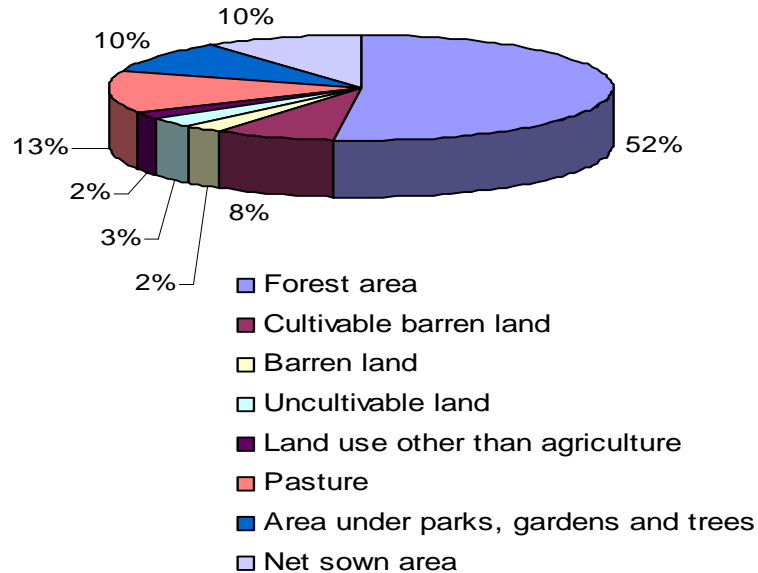
Block	Total Reporting Area	Forest	Cultivable Waste land	Barren Land	Other	Uncultivable Land	Land use for other than agricultural purposes	Pasture land	Area under Parks, gardens and orchards	Net sown area
Kapkot	107097	65885 (61.52)	7598 (7.09)	882 (0.82)	1349 (1.26)	1420 (1.33)	954 (0.89)	16071 (15.01)	5873 (5.48)	7065 (6.60)
Bageshwar	58095	12033 (20.71)	7818 (13.46)	895 (1.54)	1497 (2.58)	5119 (8.81)	2631 (4.53)	9361 (16.11)	9504 (16.36)	9237 (15.90)
Garud Baijnath	28161	12334 (43.80)	1458 (5.18)	177 (0.63)	287 (1.02)	290 (1.03)	851 (3.02)	2054 (7.29)	5294 (18.80)	5416 (19.23)
Total Rural	193353	90252 (46.68)	16874 (8.73)	1954 (1.01)	3133 (1.62)	6829 (3.53)	4436 (2.29)	27486 (14.22)	20671 (10.69)	21718 (11.23)
Forest	19908	19908	-	-	-	-	-	-	-	-
Urban	281	-	-	-	-	-	281	-	-	-
Grand Total	213542	110160 (51.58)	16874 (7.90)	5087 (2.38)	6829 (3.19)	4717 (2.23)	27486 (12.87)	20671 (9.68)	21718 (10.17)	

Note: Figures in parenthesis are in percentages.

Source: Statistical Handbook, Bageshwar- 2006

Suitable reclamation measures may be adopted to bring weed-infested land under cultivation after studying the characteristics of soil, rainfall, natural vegetation, etc. There is also scope to improve the area under pasture land keeping in view the animal husbandry requirements.

Figure 4.1
Land use in Bageshwar District



4.2 Agriculture Land Holding

Size of land holding determines the viability and mechanization of agriculture. Block wise size of land holding is given in Table 4.3.

Out of 55300 farmers in the district, 66.54% are marginal farmers having average landholding size of less than 0.5 ha, followed by small farmers (22.52%) holding 0.5 to 1.0 ha. The farmers having large size land holdings above 2.0 ha. is just 1.49%, which constitutes nearly 0.12% of farmers. The huge numbers of farmers in the category of small land holdings are due to presence of hilly terrain. In Kapkot block 10.33%, farmers fall under medium size land holding i.e. between 1.0 ha to 2.0 ha. The corresponding figures for Bageshwar and Garud blocks are 7% and 8.46% respectively. The percentage of farmers having different land holdings is shown in the pie chart (Figure 4.2).

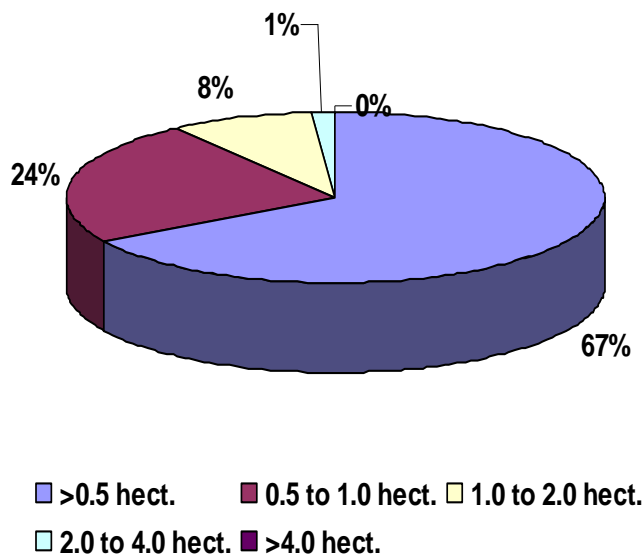
Table 4.3
Block wise size of land holdings – 2006

Holding Size (Ha) Block	No. of Farmers					Total
	>0.5	0.5 to 1.0	1.0 to 2.0	2.0 to 4.0	>4.0	
Kapkot	11829 (64.85)	4183 (22.93)	1884 (10.33)	323 (1.77)	21 (0.12)	18240
Bageshwar	16141 (67.78)	5709 (23.99)	1668 (7.00)	271 (1.13)	24 (0.10)	23813
Garud-Baijnath	8818 (66.58)	3118 (23.53)	1121 (8.46)	167 (1.26)	23 (0.17)	13247
Total	36788 (66.54)	13010 (23.52)	4673 (8.45)	761 (1.37)	68 (0.12)	55300

Note: Figures in parenthesis indicate percentage

Source: Statistical Hand Book Bageshwar – 2006

Figure 4.2
Percentage of various size of land holding



Major findings of land utilization pattern in the district are:

- Area under agriculture is confined to near river valleys of Saryu and Gomti rivers. The higher reaches and mountain tops are covered with forest. The land near the hilltops is less fertile and is not suitable for agriculture.

- Only Garud Baijnath block has got fairly good agricultural land where almost all crops are grown.
- The cultivable wasteland, pasture land which is not presently used for cultivation is more in Kapkot and Bageshwar blocks. Forest products are found in large quantity in the District such as bamboo, timber, firewood and leaves for preparing leaf plates and other medicinal plants. These forest products have potential to provide large-scale employment to the villagers.
- In the District, 51.58% (110160 ha.) of total land is under forest, 2.38% is barren land (5087 ha.) and 3.19% (6829 ha.) is uncultivable land. Net sown area of the district is 21718 ha. (10.17%).

4.3 Land use Pattern in Bageshwar Town

Bageshwar is a small town having a population of 7803 as per the Census 2001. In the past, no planning efforts have been made by the State, which has led to haphazard development of the town.



Photo 4.1: View of Bageshwar town

The Town Planning Department, Govt of Uttarakhand has recently made efforts to delineate the regulated area of Bageshwar Town and prepare a Landuse Plan. The total regulated area of Bageshwar Town is approximately 1286 hectare, out of which nearly 39% of the total regulated area is under urban and rest 61% is under Rural. In urban area, the land use pattern is dominated by forests, gardens and agriculture which share around 52% of the total urban landuse. The land under Road and Transport is 8.8%, Water Bodies 8.7%, Open Spaces 3.0%, Commercial 3.0% and least area is under recreational which is 0.3 per cent. Similarly in Rural areas forests, gardens and agriculture cover nearly two third of the total area. The area

under commercial and open spaces is insignificant, which is 1.40% and 1.17% respectively. Details are given at Table 4.4.

Table 4.4
Land use Pattern of Bageshwar Town -2008
(Area in Hectare)

Sl. No.	Land Use	Regulated Area (Urban)	Regulated Area (Rural)	Total Area	Total (%)
1	Residential	83.00	130.00	213.00	16.56
2	Commercial	15.00	3.00	18.00	1.40
3	Public Buildings (official)	14.14	4.00	18.14	1.41
4	Public amenities/Utilities	25.29	16.12	41.41	3.22
5	Road & Transport	43.89	20.00	63.89	4.97
6	Recreational (Park & Play Ground)	1.66	-----	1.66	0.13
7	Vacant land (Open Space)	15.00	-----	15.00	1.17
8	Water Bodies (River & drains)	43.49	34.74	78.23	6.09
9	Agriculture & Gardens	128.16	377.68	505.84	39.35
10	Forests	130.37	200.00	330.37	25.70
Total		500.00	785.54	1285.54	100.00

Source: Office of the Associate Town Planner, Town Planning Department, Haldwani.

While preparing the Master Plan for Bageshwar Town, consideration should be given to allocate proper proportion of land under Commercial, Recreational, Road and Transport, and Public amenities. While analyzing the present scenario of the town, it has been found that there are encroachment problems, buildings abutting the roads thereby creating traffic congestion at different places in the town. There is also scope for urban renewal seeing the status of unplanned housing in the town alongwith proper distribution of infrastructure services in the town.

5.1 Agriculture

Agriculture is the predominant economic activity in the District and it has the main share in the District economy. The employment opportunities in other economic activities are very less and as such there is a high dependency on agriculture.

The topography of Uttarakhand is characterized by hilly terrain, rugged and rocky Mountains, deep valleys, high peaks, swift streams and rivulets dotted with scattered habitations. Bageshwar is characterized by periodic soil erosion and frequent landslides. The District is covered with natural vegetation in the form of mixed broad-leaved forests with oak and pine. Climate of the district varies from subtropical in the valleys to temperate on the higher slopes. Traditional agricultural practices have been unable to support the needs of growing population, with the result out-migration from the district is reported.

Agriculture in the area suffers from many constraints. The limited availability of cultivatable land is a major constraint for the development of agriculture. As much as 88% of the area is either covered by forests or is barren or uncultivable. The fertility of land except in the valleys is low. The land holding size in the district is small. Short agricultural season, low temperatures, high altitude, perpetual problem of soil erosion due to steep gradients etc. are other inhibiting factors affecting agriculture. Agriculture, therefore, does not offer too much hope for improving the economic condition of the people in the area. Sheep rearing for production of wool and meat, orchards, spinning and weaving of wool and other cottage industries etc. offer scope and their potential needs to be exploited to the fullest extent. Terrace cultivation is common in these areas because of hilly terrain and steep slopes. Some cultivation is done on steep hills also where terracing and tilling cannot be done even by burning scrubs and bushes to clear the land for cultivation. The seeds are sown with the help of a hoe. This practice of cultivation is known as 'Katil'. Both Rabi and Kharif crops are sown in most of the areas. The main Kharif crops are paddy, small millets and potato and chief Rabi

crops are wheat and barley. These crops account for over 80 percent of the total cropped area. Horticulture is another field that can give boost to the economy of the district. However, it has not made much headway due to difficulties in marketing the produce, poor communication and remoteness of the settlements.

5.2 Cropping pattern

The rainfall in the district varies between 788 mm to 1200 mm. Rainfall was recorded as 1200 mm in 2001, 788 mm in 2002 and 1117.8 mm in 2006. This erratic pattern of rainfall has led a large chunk of land cultivated under rain-fed conditions. Lack of irrigation in the district is reflected in low production of horticulture produce. The dependence on rainwater is as high as 90% for agriculture hence rain water harvesting is a prime need for agriculture. The District had total gross cropped area of 39180 ha. during 2004-05. The net irrigated area and gross irrigated areas were 4003 ha (18.43%) and 7943 ha (36.57%) in the corresponding year (Table 5.1).

Table No. 5.1
Year- wise Gross and Net Irrigated area of the Bageshwar District

(Area in hect.)

Year	Net sown area	Net Irrigated	Gross Irrigated
2002-03	22752	5704 (25.07%)	11352 (49.89%)
2003-04	23195	4853 (20.92%)	9694 (41.79%)
2004-05	21718	4003 (18.43%)	7943 (36.57%)

Source: Statistical Handbook, Bageshwar -2006

The block wise net irrigated area and gross irrigated areas are given in Table 5.2. A large percentage of gross irrigated area was covered under agriculture in Bageshwar and Garud Baijnath blocks, which may be due to fertile soil, flat land, access to markets and extension facilities like fertilizers, high yielding varieties of seeds, modern agricultural equipments etc. The net irrigated area in Bageshwar was the highest (44.59 percent) of the total net irrigated area in the District followed by Garud Baijnath (29.68 percent) which are more than the district average. Kapkot has only (25.73 percent) under net irrigated area. The higher net irrigated area in Garud Baijnath and Bageshwar may be attributed to the presence of good irrigation network of high drum, gul, hauz, canals etc, government initiative for increasing irrigation facilities for

farmers at affordable prices, plain and level land, large gross cropped area and proximity to good agricultural extension facilities and markets. However, Garudu Baijnath block has 31.94% net irrigated area of the total net sown area which is highest in the district (Table 5.2).

Table No. 5.2
Block- wise Gross and Net Irrigated area during 2004-05

(Area in hect.)

Name of Block	Net sown area	Net Irrigated area	%	Gross Irrigated area	%
Kapkot	7065	1030	14.58	2051	29.03
Bageshwar	9237	1785	19.32	3562	38.56
Garud- Baijnath	5416	1188	31.94	2330	43.02
Total	21718	4003	18.43	7943	36.57

Source: Statistical Handbook, Bageshwar -2006

Of the total arable land of 35291 Ha in the district, wheat and paddy alone constituted nearly 74% of the total area (refer Table 5.3). Bageshwar block has the highest arable land for wheat and paddy followed by Garud-Baijnath and Kapkot (Figure 5.1). Due to poor transportation and marketing facility, fruit cultivation is not fully developed. However, there is considerable production of pear, mango, lemon, oranges, apple, apricot, peach, plum, walnut, guava, litchi etc. Thus, Bageshwar seems to be agriculturally most developed due to its fertile soil as part of river basins.

Table 5.3
Land under different Crops – 2004-05

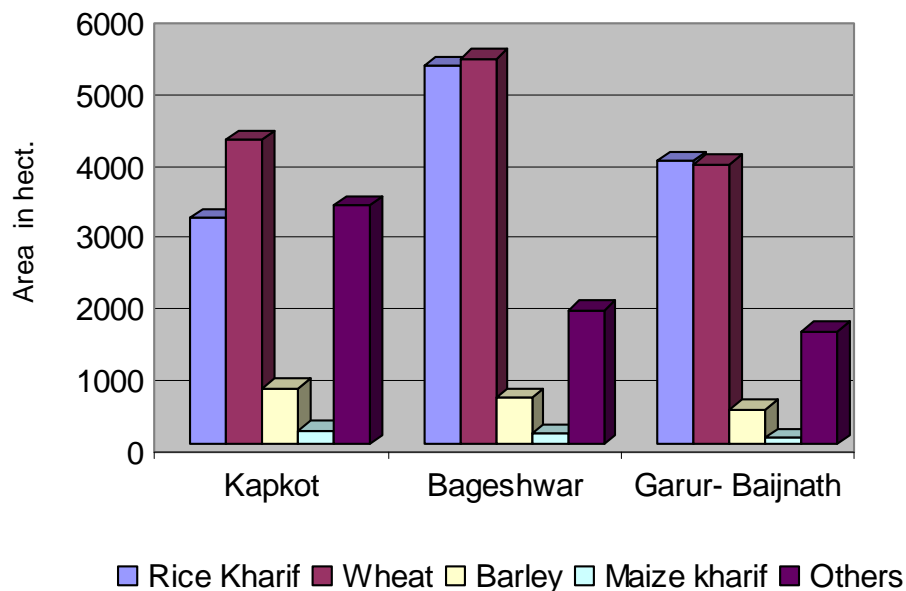
(Area in ha)

Name of the block	Rice Kharif	Wheat	Barley	Maize kharif	Others	Total
Kapkot	3180	4274	783	194	3364	11795
%	26.96	36.23	6.63	1.64	28.52	100
Bageshwar	5320	5417	648	145	1886	13416
%	39.65	40.38	4.83	1.08	14.06	100
Garud- Baijnath	3981	3930	492	89	1588	10080
%	39.49	38.99	4.88	0.88	15.75	100
Total	12481	13621	1923	428	6838	35291
%	35.37	38.60	5.45	1.21	19.38	100

Source: Statistical Handbook, Bageshwar -2006

The District has 28% of the total population below the poverty line. Under the present situation of the extremely small land holdings, almost 95% of the land under cultivation does not attract bank credit (NABARD report). This further indicates the hurdles confronting the agro-based enterprises in the district. The majority of small and marginal farmers in the rural areas are living below the poverty line. There are instances of converting productive agriculture land for non-agricultural purpose mainly for real estate in the suburbs of Bageshwar and Garud Baijnath. The farmers having fields close to township in valleys feel more comfortable in selling their lands for house and building construction to earn profit. Cultivable land is shrinking just because of the non-viable returns from the agriculture. However, horticulture has helped in improving the socio-economic conditions of the farmers in the District.

Figure 5.1
Block wise land under different crops



5.2.1 Crop Yield

There was increase in the yield of food grains in the district which increased from 11.13 quintals per ha in 1997-98 to 13.84 quintals per ha in 2004-05. There was substantial increase in the yield of cereals from 41122 MT in 2002-03 to 50821 MT in 2004-05 (Refer Table 5.4). The total yield of

rice increased to 26.16% and wheat 20.44% during the corresponding period though the yield of wheat suffered a major setback during 2003-04 and rice during 2004-05. This may be due to erratic rainfall.

Table 5.4
Yield of different food grains in the district

(Production in Metric Ton)

Name of Crops	2002-03	2003-04	2004-05
Rice	13177	18981	16624
Wheat	18445	13787	22216
Barley	3005	2130	2832
Maize	382	1705	529
Others	6113	9942	8620
Sub-Total	41122	46545	50821
Urad	45	55	49
Masoor	444	829	716
Mutter(Pea)	7	-	37
Arhar	-	-	1
Sub-Total	496	885	812
Grand Total	41618	47430	51633

Source: Statistical Handbook, Bageshwar-2006

The production of pulses which includes Urad, Mung, Masoor, Gram, Peas and Arahara was the tune of 496 MT in 2002-03, which rose to 885 MT in 2003-04 and 812 MT in 2004-05. Thus the average yield under cereals was comparatively high unlike pulses, which may be due to the large cropped area, good profits, access to markets, fertilizers, high yielding varieties of seeds etc, good irrigation network, large demand for crops in the market, technical skills etc.

Potatoes is an important crop grown in the district which has registered a sharp decrease in yield from 225.35 quintals per ha. 1999-2000 to 197.80 quintals per ha in 2002-03 and further to 115.00 quintals per ha. during 2004-2005. This may be due to decrease in gross cropped area under the potato and shift in priority to other crops.

Food grains are the major source of revenue. The total revenue earned from the sale of major crops in the District increased to Rs 60.72 crores in 1999-2000 from Rs 30.78 crores in 1997-98. Food grains alone constitute Rs 56.74 crores (93.44%) of the total revenue earned for the district during 1999-2000. However, the revenue generated from sale of potatoes declined from Rs 4.81 crores in 1997-98 to Rs 3.79 crores during the corresponding period.

5.2.2 Agriculture equipments

The district of Bageshwar is still following primitive methods of cultivation. The district is dominated by use of large number of wooden/iron ploughs. There were very less modern agriculture equipments such as Haro, threshing machine, sprayers. The distribution of modern equipments such as Sprayer, Sourcing equipments, Haro and cultivator are confined mostly in Bageshwar block, which is the district headquarter.

5.2.3 Fertilizers

The distribution pattern of consumption of fertilizers has shown a marginal decrease from 361 MT in 2002-03 to 359 MT in 2005-2006. The distribution of nitrogen was highest (269 MT) followed by phosphorus (75 MT) and very low proportion of potash during 2005-2006 (refer table 5.5).

Table 5.5
Block wise distribution of fertilizers - 2005-06
(in Metric Ton)

S. No.	Block	Nitrogen	Phosphorous	Potash	Total
1	Kapkot	20	17	1	38
2.	Bageshwar	123	34	7	164
3.	Garud Baijnath	126	24	7	157
Total		269	75	15	359

Source: Statistical Handbook, Bageshwar-2006

5.3 Irrigation

The canals and channels are the main sources of irrigation in Bageshwar District. It is served by a length of 394 Km. of canals during 2005-2006 (refer table 5.6). The block-wise sources of irrigation in the District are given in Table No.5.7. The total area irrigated by canals is 2724 ha. (68.05%) of 4003 ha. area (refer table 5.8). Apart from this, the Irrigation Department has constructed and installed 823 hauzs and 784 Guls, 83 high drums and 18 pump sets during 2005-06. The lack of irrigation in the District has witnessed a slow growth rate in the production of horticulture produce. The farmers are highly dependent on rainwater.

Exploring the potentials of rainwater harvesting, roof water harvesting and its connectivity with the low cost collection tanks made from ploythene-line or Ferro- cement may be a viable solution for covering larger areas under irrigation.

Table 5.6
Year-wise Sources of Irrigation in the District

Year	Length of Canals (Kms)	No. of Underground Pump set	No. of constructed Hauz	Constructed Guls (Kms.)	No. of Highdrum
2003-2004	382	18	761	644	81
2004-2005	387	18	789	665	83
2005-2006	394	18	823	784	83

Source: Statistical Handbook, Bageshwar-2006

Table 5.7
Block-wise Sources of Irrigation in the District during 2005-06

Name of Block	Length of Canals (Kms)	Underground Pumpset (No.)	No. of constructed Hauz	Constructed Guls (Kms.)	No. of Highdrum
Kapkot	127	3	324	405	20
Bageshwar	115	10	289	279	52
Garud - Baijnath	152	5	210	100	11
Total	394	18	823	784	83

Source: Statistical Handbook, Bageshwar-2006

Table No.5.8
Block wise irrigated area with Sources

Name of Block	Irrigated area through Canals	Percentage to total	Others	Percentage to total	Total
Kapkot	641	64.82	348	35.18	989
Bageshwar	1240	68.82	562	31.18	1802
Garud - Baijnath	843	69.55	369	30.49	1212
Total	2724	68.05	1279	31.95	4003

Source: Statistical Handbook, Bageshwar-2006

The blockwise irrigation trend indicates that largest area irrigated by canals was in Bageshwar (1240 ha) and Garud Baijnath (843 ha) whereas only 641 ha. was irrigated in Kapkot. Most of the area is irrigated by canals in Garud Baijnath block(69.55%) followed by Bageshwar (68.82%) and Kapkot (64.82%). Major sources of irrigation were largely developed in year 2001-02 in Kapkot, Bageshwar & Garud Baijnath. In Bageshwar block, irrigation is widely done by other sources such as underground pump sets, high drums, hauz construction and gul construction. Government tube wells, private tube wells, pump sets or boring, pucca wells and waghi are generally not developed in the District.

5.4 Horticulture

Due to unique climatic conditions, this sector has been identified as the prime sector for development. Apart from providing high income and employment opportunities, this sector is amongst the few allied sectors of agriculture, which improves both the economy and the environment at the same time. Bageshwar district due to its geographical setting and traditional linkages with horticulture has vast potential for its expansion in the near future. Demographic and occupational pattern in the district clearly highlight the dependency of majority of the population that resides in villages on agricultural and horticultural activities.

There are six horticulture mobile teams to carry out horticultural activities in the three development blocks. The horticulture department has two nurseries at Bageshwar and Karni. Bageshwar nursery is under the

department for tropical fruits and the Karni nursery is under Dabur India Ltd. The Department also has a caning and processing centre at Bageshwar.

5.4.1 Horticulture Processing Facilities

Processing facility for fruits is inadequate, as there is only one processing center in District headquarter owned by the Department. Due to the poor status of processing, a large quantity of the fruits are disposed of within the district which results within economic loss to the farmers and as such they are not keen to take up horticulture.

5.4.2 Fruit Production

The District is rich in the production of pear, citrus and mango, but the value addition of this activity in the District is poor and farmers don't get good price for their produce. Due to this, farmers have to sell their produce as soon as they are harvested on minimal price. Establishment of canning centers at Shama for citrus and at Garud for pear may yield fruitful results.

In fruit cultivation, Kapkot is the leading block with an area of 1297 ha. and a production of 4325 MT, while Bageshwar block has as area of 824 ha. under fruit cultivation but has production of 4589 MT.

Table 5.9
Block wise area and production under fruit crops in
Bageshwar district during 2005-06

(Area in hectare and production in MT)

S. No.	Name of Block	Apple		Pear		Peach		Plum		Apricot	
		A.	P.	A.	P.	A.	P.	A.	P.	A.	P.
1	2	3	4	5	6	7	8	9	10	11	12
1	Bageshwar	4	8	85	1558	27	55	27	104	8	25
2	Kapkot	28	24	32	564	135	309	52	166	24	80
3	Garud -Baijnath	7	16	247	4190	64	169	23	85	18	50
Total		39	48	364	6312	226	533	102	355	50	155

Contd....

S. No.	Name of Block	Walnut		Citrus		Mango		Lichi		Other		Grand Total	
		A.	P.	A.	P.	A.	P.	A.	P.	A.	P.	A.	P.
		13	14	15	16	17	18	19	20	21	22	23	24
1	Bageshwar	57	35	169	805	352	1250	---	---	95	749	824	4589
2	Kapkot	280	180	340	1601	136	474	---	---	270	927	1297	4325
3	Garud - Baijnath	130	170	308	1450	83	279	---	---	175	890	1055	7299
Total		467	385	817	3856	571	2003	---	---	540	2566	3176	16213

Source: Statistical Handbook, Bageshwar-2006
A= Area in ha. P= Production in Metric Tones (MT)

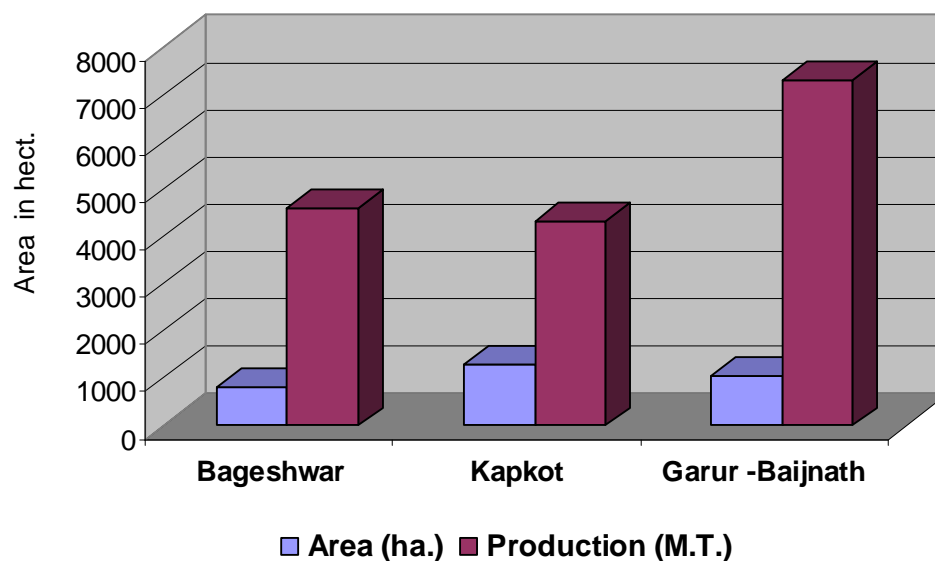
Table 5.10
Total Area and Production of Fruit Crops in Bageshwar District during 2005-06

Name of Block	Area (ha.)	Percentage	Production (M.T.)	Percentage
Bageshwar	824	25.94	4589	28.30
Kapkot	1297	40.84	4325	26.68
Garud -Baijnath	1055	33.22	7299	45.02
Total	3176	100.00	16213	100.00

Source: Statistical Handbook, Bageshwar-2006

Figure 5.2

Block wise area and production of fruit crops in Bageshwar district



The maximum area is covered under citrus (817 ha.) followed by mango (571 ha.) and walnut (467 ha). Kapkot is the leading block in citrus cultivation (340 ha.). The maximum production is under Pear (6312 MT), followed by Citrus (3856 MT) and mango (2003 MT). The total area under fruit crops in the District is 3176 ha with a production of 16213 MT. Even though Garud- Baijnath block has 1055 ha, the production is more in other 2 blocks which produce 7299 MT.

The table No.5.9 highlights that citrus fruit and mangoes have got very good yield in all the three blocks of Bageshwar district. This can be clearly seen in figure 5.2 i.e.1450 MT, 1601 MT, 805 MT citrus fruit is grown in Garud, Kapkot and Bageshwar blocks respectively. Similarly, mango production is 1250 MT. 474MT and 279 MT in Bageshwar, Kapkot and Garud blocks respectively. Apart from this plum, peach and pear are the other main fruit crops fruits. The production of pear is highest in the entire district (6312M.T) which is also exported to Delhi. Although the climatic conditions are suitable for citrus and mango fruits, farmers with small land holdings find it difficult to concentrate on horticulture produce without subsidy/help from the State Government. To create more opportunities for employment in the rural sector, Government may develop transport, storage and marketing facilities for the small and marginal farmers.

5.4.3 Vegetable production

The productivity of fruits and potatoes in the District has increased while for vegetables it has gone down. The productivity of vegetables decreased from 12.89 MT/ha (2003) to 8.39 MT/ha. (2006). This may be due to erratic rainfall. The cultivated area under potato and fruits has also increased. The vegetable fruit and potato production in the District and block wise are given in table 5.11 and 5.12 respectively. In order to achieve high yield, the popularization of scientific and improved methods of vegetable cultivation and their seed production is of utmost importance with reference to specific agro-climatic conditions and unexplored areas in hilly regions, which permit production of a wide variety of good quality vegetables. Ironically, the farmers in hilly areas are today no longer able to sustain themselves at the level of self-sufficiency. Reduction in the density of forest cover and overgrazing has

led to soil erosion of unprecedented proportions. Land and water resources are also becoming even scarce.

Table 5.11
Production of Vegetable, Fruit and Potato in Bageshwar

Year	Fruit			Vegetable			Potato		
	1	2	3	1	2	3	1	2	3
2003-04	2411.58	10742.41	4.45	954.09	12295.96	12.89	210.96	3005.6	14.25
2004-05	2986.66	16092.00	5.38	1056.2	12977.45	12.28	300.00	5240.0	17.46
2005-06	3176.00	16213.00	5.10	1073.0	9009.00	8.39	539.00	10710.0	19.87

Source: Statistical Handbook, Bageshwar -2006
1=Area in ha, 2=Production in Metric ton, 3=Yield in MT/Ha.

Table 5.12
Block-wise distribution of vegetable, fruit and potato Production

Block	Fruit			Vegetable			Potato		
	1	2	3	1	2	3	1	2	3
Bageshwar	824	4589	5.56	455.09	3815	8.38	130	2570	19.76
Kapkot	1297	4325	3.33	251.91	2130	8.45	230	4601	20.00
Garud-Baijnath	1055	7299	6.91	366.09	3064	8.37	179	3539	19.77
Total	3176	16213	5.10	1073	9009	8.39	539	10710	19.87

Source: Statistical Handbook, Bageshwar -2006
1=Area in hectare, 2=Production in Metric ton, 3=Yield in MT/Ha.

Kapkot block is having more cultivated area under fruits. But the production and productivity of fruit is more in the Garud Baijnath. It produces 7299 M.T. utilizing 1055 ha. cultivated area. But Kapkot block produces 4325 M.T. of fruits utilizing lesser area of 1297 ha. only. Therefore, Garud Baijnath block is suitable to bring more area under fruit cultivation.

The production of vegetables in all the 3 blocks in the district remained more or less the same at 8.4 MT/Ha. Bageshwar block produced 3815 MT of vegetables covering 455 ha of cultivated land. The productivity of potato in all these 3 blocks in the district has also remained the same at 20 MT/Ha. Table No. 5.12 shows that Kapkot block has the highest area under potato cultivation amounting to 230 ha with a yield of 4601MT. This is followed by Bageshwar where potatoes are grown in 130 ha and production is 2570 MT.

Garud block has the least area of 179 ha under potato cultivation with a production of 2539 MT. This shows that apart from cereals production of potato and fruits are important agriculture produce.

Climate for vegetables production is suitable throughout the year. Production of peas, radish, french bean, cabbage, capsicum, tomato and onions is noteworthy. Although Bageshwar has predominantly, hilly and rugged terrain it is blessed with moderate per hectare yield of vegetables. The production of vegetable also encourages the marginal farmers to substantiate their income by growing vegetable in their field instead of cereals. These crops bring them ready payment with which they can meet their day-to-day necessities. It is worth mentioning here that high altitude of Kapkot block have got a very suitable climate to grow peas, cabbage, and capsicum in the off-season and these vegetables fetch the farmers a handsome price for their produce. Agriculture Department of Uttarakhand is making all efforts for training farmers to grow off season mushrooms in this remote district which have got a huge demand in plains.

5.5 Floriculture

All the blocks are almost at par as far as the cultivation of floriculture is concerned. The area covered under floriculture in the blocks ranges from 5.0 to 5.5 ha, while production ranges from 3.65 to 4.75 MT per annum (Table 5.13).

Table 5.13
Block wise area and production under floriculture - 2002-03

S. No	Name of Block	Rose		Gladioli		Marigold		Other		Grand Total	
		A	P	A	P	A	P	A	P	A	P
1	Bageshwar	1.00	2.00	0.75	1.00	1.00	0.50	2.00	1.50	5.50	4.75
2	Kapkot	1.00	1.90	1.00	1.00	1.00	0.75	2.00	1.00	5.00	3.65
3	Garud-Baijnath	1.00	2.00	0.75	1.50	1.50	0.50	2.00	1.50	5.50	4.75
Total		3.00	5.90	2.50	3.50	3.50	1.75	6.00	4.00	16.00	13.15

*A=Area in ha, P=Production in metric ton.

The total area under floriculture is 16 ha and production is 13.15 MT. This sector is least developed. Apart from traditional cereal cultivation in the district, floriculture has tremendous scope to provide additional income to the farmers. Kapkot block having moderate climate is suitable for floriculture to a great extent. State Government has been making efforts for the encouragement of the floriculture in Kapkot under a Government of India programme by providing assistance to farmers in different villages. The major floriculture crop cultivated in the district is marigold, which is cultivated in an area of 3.5 ha with a production of 1.75 MT.

5.6 Animal Husbandry

Animal Husbandry is an important economic activity next to agriculture and horticulture in Bageshwar which alongwith agriculture provides sustenance to the farmers. Domestic animals help in agricultural activities and also provide milk, butter, meat, wool, dung manure etc. Animal husbandry is an important source of supplementing income of the rural population. Of the total live-stock, sheep accounts for almost one third. The production of milk per milch animal is very low. Efforts are under way for introducing high yielding variety of animals. Sheep rearing is an important industry in the district. Yet, it does not provide full time employment and it is only a vocation for those who are engaged in this pursuit. As many as sixteen sheep development centers are functioning in the district. In the high hills, the villagers also rear sheep and goats. Livestock is considered to be one of the important sources for the economic and industrial development of an area.

According to the Livestock Census of 1997, livestock population in the district consisted of cows, buffaloes, sheep, goats, poultry, pigs etc. The block wise distribution of livestock indicates that cows, buffaloes, poultry, pigs, goats and sheep are largely found in all the blocks. Cows, buffaloes, goat, pigs, sheep and poultry are kept as domestic animals by the rural population to a large extent. Both cows and buffaloes are predominant among the livestock population in all the blocks. Kapkot has the largest number of cows (52884) followed by Bageshwar (42415) and Guard Baijnath with least number of cows (24899), Bageshwar has largest number of buffaloes (20277) followed by Kapkot (13157) and Garud Baijnath (8503). Goats are in large

number especially in Kapkot followed by Bageshwar (less than 25,000) and Garud Baijnath (10552). This clearly indicates that these animals apart from providing milk and milk products also provide meat and hide to the rural population.

Sheep are largely concentrated in Kapkot (14473), due to high altitude and cold weather. People rear these animals for meat and wool for making carpets, durries etc. In Kapkot, a large percentage of population is of tribes like Bhutias, who rear the sheep and also make handicraft items. There are very few sheep in Garud Baijnath (194). Poultry and other birds are reported in all the blocks. Bageshwar has largest number of these birds (7837) followed by Garud Baijnath (4633) and Kapkot (1848). Horses are also reared for transportation purpose. Garud Baijnath has largest number of horses (334) followed by Kapkot (142) and Bageshwar (53). Pigs are reared largely in Garud Baijnath.

5.7 Animal Health Service

There are 10 veterinary hospitals and 17 livestock centers situated in different blocks of the district. Besides, extension services for animal rearing and upkeep, animal health is looked after through various livestock centers in the district.

5.7.1 Castration of animals

The bulls, buffaloes, goats of poor and unclassified breeds are castrated by modern techniques with a view to reduce the population of animals by curtailing the availability of low breed males.

5.7.2 Vaccination against common diseases

The vaccination for common diseases occurring in different seasons is arranged by the Department. The most common diseases are foot & mouth diseases, hemorrhage septicemias, enterotoxaemia, etc. Besides anti rabies vaccination in dogs & vaccination against Ranikhet diseases and Fowl pox diseases in poultry is also done from time to time.

5.7.3 Artificial insemination

Artificial insemination using high quality frozen semen is done by the department with a view to increase the population of good quality animals, up gradation of local breeds and ultimately to increase the total milk production in the district. Efforts are made to carry out artificial insemination in maximum cows in a year. It has also been started in buffaloes.

5.7.4 Breed improvement through Natural Crossing

Breed improvement through natural crossing is being done in the areas where artificial insemination is not possible. For such places bulls are provided on nominal payment. Presently this work is being done with the support of Uttarakhand Livestock Development Board, Dehradun.

5.7.5 Sheep Development Programme

Deworming in sheep is done as under:

- (a) Treatment for ectoparasites
- (b) Breed improvement by providing improved breed rams to sheep owner free of cost.
- (c) Vaccination against major diseases
- (d) Castrations of poor quality rams
- (e) Treatment of diseases.

The above work is done through a Sheep and Wool Development Centers in the district.

5.7.6 Other animal development work:

Organizing infertility camps

1. Organizing animal show & exhibition.
2. Financial support to small and marginal farmers along with BPL families through loans.
3. Support to scheduled caste & scheduled tribes in back yard poultry and heifer rearing scheme.
4. Strengthening of milk production
5. Distribution of poultry birds

5.8 Dairying

There is no commercial production of milk. Dairying activity is carried out on a small scale. The average production of milk on daily basis was 241 Kg. in 2001-02, which reduced slightly to 239 Kg in 2003-04 (table 5.14).

The maximum production of milk was noticed between September to March. There are 45 milk collection centres in three blocks. The milk produced in the district is largely used by the farmers themselves except in Kapkopt due to the availability of a Chilling Plant. The milk is brought for sale. But long distances, poor transport facility, lack of veterinary facilities and staff at the plant hinder the development of this industry.

Table 5.14
Milk Production in the District

S. No.	Year	Total Production (Kg. per annum)	Production per day (Kg.)
1	2001-02	87948	241
2	2002-03	111567	306
3	2003-04	87197	239

Source: Statistical Handbook, Bageshwar -2006

5.8.1 Dairy Development Program (Mahila Dairy)

Mahila dairy is only dairy known as Kamedi which started on Bageshwar Bajnath road at Bageshwar. The milk is collected through 43 milk societies working in Bageshwar and Garud Blocks. The societies are located along Garud marg, Pinglu Marg, and Jakhan Marg in Garud Block & Khatpudiachina in Bageshwar Block.

Presently the dairy is at infancy stage due to the short supply of milk. The cows in the district are low yielding. The milk collected from different societies is supplied to chilling plant and then to Almora dairy for further processing. The following activities are being done under this programme.

- i. Strengthening of rural milk societies,
- ii. Formation of new societies,
- iii. Establishing milk-testing center,

- iv. Automatic milk collection unit,
- v. Vaccination of animals,
- vi. Deworming of milch animals,
- vii. Emergency treatment of animals,
- viii. Sale of animal feed,
- ix. Construction of Bhusa Godowns,
- x. Participation of women farmers and
- xi. Supply of chilled milk to Almora milk processing unit.

5.9 Pisciculture

This is a very insignificant part of the economic activities in the district, though the Fisheries Department has distributed fish seeds in large proportion. During the year 2000-01, 28,000 seeds were distributed, which declined marginally to 25,000 in 2001-02. It further registered a steep decline in 2002-03 when only 7,000 seeds were distributed. This may be due to the lack of knowledge among farmers and lack of cooperation from the Department regarding proper rearing, technology, marketing, transportation etc.

Similarly, the block wise picture states that fish seeds were distributed mostly in Bageshwar and Garud Baijnath blocks ranging from 4000 to 2000 seeds and nothing in Kapkot. This may be due to the dominance of sheep rearing activity due to cold climate, hilly terrain, lack of interest shown by local people.

The current activities to promote fisheries are as under:

- a) **Repairs and Maintenance of personal Fish tank:-** The repair and maintenance work is taken up in selected individual tanks on 50% subsidy. The priority is given to only those tanks which have sufficient water round the year.
- b) **Construction of new Fish ponds:** New Fish ponds are constructed in an area of 100 sq. m. It costs around ` .2000/ per pond. A subsidy of 20% is given by the Department and rest of the money is arranged on credit through bank loans.

- c) Training on Pisciculture:-** Short duration fish farming training is arranged for those persons who own fish tanks or are interested in getting fish ponds constructed.
- d) Distribution of Finger lings:-** The fingerlings are supplied to the fish farmers on payments basis. The transportation cost is borne by the department for this work.
- e) Technical Guidance:-** The interested farmers are given free guidance about starting pisciculture programme.
- f) Inspection of Fish tanks: -** The fish tanks and ponds are inspected from time to time by the fish inspectors and the farmers are given valuable suggestions for proper upkeep of fish.

5.10 Sericulture

There are two Govt. sericulture farms in the district:

- i) Govt. Sericulture farm Garud.
- ii) Govt. Sericulture farms Kafalkhet (Bageshwar).

Besides one silk center is functional at Asho (Kapkot). These farms and silk centers are supported by the State Govt. Two silk production farms are working at Garud and Bageshwar respectively. These centers distribute chalky reared worms to local farmers and collect the cocoons from these farmers. These cocoons are auctioned in cocoon market Kusamkhera Haldwani and the producers get the sale money immediately after the sale of the cocoons.

5.10.1 Central Silk Research & Extension Center Bageshwar

The Center Silk Research & Extension Center Bageshwar was established in Aug. 2001. It is working under the guidance of Regional Silk Production Research Center Sahspur, Dehradun. The following activities are being done undertaken.

- a) Strengthening of the sericulture farms situated in the district.
- b) Increasing the number of silk-worm rearing farmers
- c) To improve the silk production and the quality of the silk.
- d) To arrange Group discussion 'gosthis' and exhibitions on sericulture. Plantation of mulberry plants.

5.11 Forestry

The District is rich in forest cover having variety of flora. The vegetation varies from small grass to gigantic tree species like Sal, Sain and Siris etc. Forest cover varies as per the height and altitude in the area. The highest spot lies in Dhakuri forest block (3213 m) in Kapkot range and the lowest spot is Bageshwar itself (884 m) at the confluence of Saryu-Gomti rivers. The District area extends from lesser Himalayas to Greater Himalayan range. The main species of the forest are Chir Pine and Oak. The main categories of forests are described below:

5.11.1 Himalayan Chirpine forests

These forests extend over 2000 m. altitude. Cold climate, deep soil and good drainage provide favourable conditions for Chir pine vegetation. At higher altitudes, Chir pine is replaced by Oak species. The lower altitudes and specially dry and shallow soil facilitate Euphorbia, Rambans and other thorny species. Resin tapping is the main source of income and the employment generation from such type of forests.

5.11.2 Oak Forests

These are found on southern (Warmer) side from 1800 to 2100 m altitude and on Northern side (colder) from 1500 to 1800 m. Quarcus Leuestricphora is the abundant species. Its associate species are Riyang, Falyant, Tilonj, Kanfal, Kola, Chamkhadik, Roplar etc. Buraush and Syar are other associated species. These species are good for fodder and fuel. They are useful for water conservation and are popular among rural folk, culturally, socially and economically (high acceptance). Villagers sometimes resort to indiscriminate lopping which does substantial harm. Ordinarily, the fire hazard is not common but repeated fires damage natural regeneration.

5.11.3 Hill Bamboo/Ringal Forests

Ringal (higher altitude bamboo) is found above 2400 m altitude in Coniferous, Oak and Rhodendron forests. The Ringal species is 'poor peoples' timber (as is known traditionally among rural folks). Weaving is a good employment generation activity. The families are self-employed through weaving and making of baskets, containers, toys and mats. The main species are Dev Ringal (Chimonobambusa Falconeri), Jamura Ringal (C. Jaunsarensis), Gol Ringal (C. Fulcata) and Tan ringal (T. Spathifloras) at lower altitudes, Ringal is replaced by other bamboo species.

5.11.4 Medicinal Plants

The area has a good diversity of medicinal herbs. The propagation of these plants has good potential in the area. Some measures of marketing i.e. buy-back mechanism may be adopted so that growers can take good advantage of their crops.

5.11.5 Bageshwar Medicinal and Aromatic Plants

Central Institute of Medicinal and Aromatic Plants (CIMAP) under its extension programme has covered 20 ha of land in the District under geranium. The Institute focused on geranium, so far under which 13-bio villages and 600 farmer families are covered. Under pyrethrum, 4 ha and under rose, 10 ha of area has been covered in the entire district. The details of departmental/mass (extensive) plantation is given at Table 5.15.

Table 5.15
Details of Departmental/Mass (extensive) Plantation

Year	Deptt. Plantation (ha)	Extensive Plantation (No. of plants in lakhs)
2000-01	1296.00	9.10
2001-02	450.00	3.50
2002-03	460.67	5.06
2003-04	234.50	7.98
2004-05	967.63	8.53

Source: Statistical Handbook, Bageshwar -2006

5.11.6 Forest Protection

The amount of Livestock pressure of grazing as per Cattle Census 2003 is given at table 5.16.

5.11.7 Forest fires

In spite of the fact that government has taken full precaution to protect the forests, there are incidences of forest fires in the District (Table 5.17)

Table 5.16
Live stock (Pressure of Grazing)

Name of Livestock	Number
Cow	121121
Buffalo	42250
Sheep	19983
Goat	81105
Total	264459

Source: Statistical Handbook, Bageshwar – 2006.

Table 5.17
No. of Cases of forest fires and area involved

Year	Reserve Forests	Civil Forests	Village Panchayat
2002-03	26 (63.50 ha)	13 (24.00 ha)	4 (7.00 ha)
2003-04	81(314.50ha)	7 (15.18 ha)	28 (89.30 ha)
2004-05	52(185.00ha)	3 (8.00 ha)	26(103.75 ha)
2005-06	16 (38.05 ha)	1 (0.50 ha)	6 (6.05 ha).

Source: Statistical Handbook, Bageshwar -2006

5.11.8 Social Forestry

Forests are at the strategic core of the management of natural resources, and health and well being of people in this region. The status of water resources, moisture regimen and land use pattern are critically dependent upon the health of the forests. Since inception, Chirag (NGO) has sought to work with local communities. There are two types of land commonly managed by village communities, viz. Van Panchayats and Civil or Soyam

lands. The lives of local communities are crucially dependent on fuel, fodder, water, timber, minor forest produce and leaf litter for manure preparation. Most importantly, the status of the village forests has a direct impact on the lives of women who are usually responsible for gathering forest biomass for domestic utilization. Healthy forests, closer to habitations, mean less drudgery for women.

In terms of impact, over 6 million saplings have been planted in about 40 square kilometers of degraded forests in 45 villages. Villagers are involved, and encouraged to take ownership at every stage of the programme. Tree seedlings, mostly of local fodder and fuel species, selected by the local community are grown. Nurseries are small in size, so as to maximize local involvement, and are usually run by women. Voluntary labour is encouraged, both to reduce costs and more importantly to increase the feeling of local ownership. While Chirag does support protection activities for 3-5 years after the plantation, effort is made so that the forest is perceived as a local asset - to be managed by and for the local community. Wide planting is often necessary, especially on severely degraded lands, protection is key to reforestation.

5.11.9 Issues/Problems

The forests encounter the following problems

- i) Forest fires.
- ii) Elicit felling and encroachment,
- iii) Poaching (killing of wild animals)
- iv) Man-animal conflict (i.e. the leopard menace, it comes out of forest as the habitat has been disturbed or shrunk by developmental activities such as urbanization, making roads or agriculture expansion, etc.). The lifting and killing of cattle is frequent in certain areas.
- v) Soil erosion: The area is very sensitive to soil-erosion. Gully erosion is obvious at many places. Check-dams, etc. are the remedial measures to be taken in large proportion.
- vi) Water supply: Although, district has a good network of small springs, rivers and rivulets throughout, yet the water remains unutilized. Dam

construction is not advisable as the area is sensitive being in seismic zone. The need of the hour is the water harvesting.

- vii) Larger number of cattle: The people adhere to low breeds and high number of cattle. The result is high and alarming pressure on forests in terms of trampling the seedlings, demand for fodder leaves and grazing. Some measures have to be engineered to reduce the number of cattle. The health, in general, of cattle has to be improved.
- viii) Horticulture: The fruit species may be encouraged to be grown. This will help improve nutrition, which is poor. The agriculture inputs such as distribution of seed and fertilizer kits also need to be added to the programme. Pasture development may be taken up.

5.12 Mineral Resources

The district has minerals such as Magnesite and soapstone. There are 42 mining industries spread throughout the district. Soapstone mining



industries are 41 in number and all are owned by private

Photo 5.1: Mineral resources of Bageshwar

companies. There is one Magnesite industry in the district near Kausani which is owned by Public Sector. Licenses are issued for the mining industries by the District Administration. It is to be renewed every year. The average depth of mine is about 20 feet for the manual operation. This industry does not provide full employment throughout the year hence, about 3/4th of the total labourers migrate from the district.

5.13 Industries

The district has no major large scale industries but it has 198 small scale industries. Most of the small scale industries are concentrated in the urban area of Bageshwar. Bageshwar block with 135 small scale industries,

alone provides 62.34% employment in small scale industries in the district. (Refer Table 5.18).

In Bageshwar District main industries comprise of woolen, copper, fruit chalk and magnesites. Soap stone and magnesites are available in sufficient quantity in the district. Magnesites factory is located at Jhiroli in Bageshwar district, which has capacity of 12 Metric ton in a year. The British Government established number of tea gardens in different areas of Bageshwar of which tea garden at Kausani is the most important.

Table 5.18
Block-wise Number of industries in Bageshwar District- 2001

Sl. No.	Name of Block	Small Scale Industries		Large Scale Industries	
		Total Industries	Total Employees	Total Industries	Total Employees
1	Kapkot	14	35	--	---
2	Bageshwar	135	240	---	---
3	Garud-Baijnath	49	110	---	-----
Total		198	385	---	---

Source: GM, District Industries Centre, Bageshwar.

5.13.1 Small Scale Industries

Keeping in view socio-economic conditions, technical know-how, local artisanship and infrastructure in Uttarakhand as a whole, small scale industry sector finds an important place. Large and medium scale industries contribute towards overall economic development of the state and for generating employment opportunities. Objective for laying greater thrust on the development for small-scale industries has been to remove regional imbalances and thus dispersal of economic activities to all the areas in a meaningful and effective manner. The analysis of the data by the Second All India Census for SSI units conducted by the Small Industries Development Organisation (SIDO) during 1990-91 has shown that per unit employment generation improvement cost in small scale industry sector is much less as compared to large and medium scale industry sector. The different type of

facilities, incentives and concessions extended to small scale sector and various policy measures taken up has yielded positive results.

**Table 5.19
Industrial Estate (Bageshwar District- 2001)**

Name of Block	No of Industrial Estates	Area (in acres)	No. of Employment	No of service centre
Garkhet (Garud-Bajjnath)	01	0.35	NA	NA

Source: GM, District Industries Centre, Bageshwar.

More small scale industries can be developed in the District. There is only one small scale industrial estate in the district with 0.35 acres area situated in the Garud- Bajjnath as shown at table 5.19. Mostly the small scale industries consist of food processing units like bread, biscuits, edible oil, and food preservation.

5.13.2 Handloom

Handloom sector of Uttarakhand has got the distinction of being a pioneer industry and comes only next to agriculture with regard to employment. The handloom sector offers employment opportunities at lesser investment. It is spread over remote rural and semi urban areas and benefits mainly people belonging to minority communities and SC/ST. This sector has vast export potential also. Khadi & Village Industries has been an important employment oriented sector to improve the economic condition and development of rural areas by providing employment opportunities to rural people and economically weaker sections of the society.

Apart from handloom and Khadi and Village Industries, the district has State Silk farm at Garud, Kaphalkhet (Bageshwar) and Silk Centre at Ason (Kapkot). Garud and Bageshwar blocks have departmental Mulberry garden, where two silk production groups are working under Central Silk Research Centre, Bageshwar.

5.13.3 Leather Footwear

Leather footwear industry has been the oldest traditional industry in India, which is being manufactured mainly in the cottage and Small Scale

Sector. Most of the units follow traditional method in manufacture of leather footwear by using hand tools and sewing machines. There are a few units which are well organized and manufacture leather Shoes, Boots, Sandals, Chappals etc. by using mechanized and modern technologies, which help in maintaining uniformity in quality and also increase the productivity.

The handmade process is nothing but skilled job of craftsmen and is restricted to certain communities and places. Looking at the increasing demand for these items in local as well as international markets, the leather footwear industry has a great scope for development.

5.13.4 Herbal Medicine/Product

Ayurvedic system of medicine is as old as Vedic age. Now-a-days people prefer to the Ayurvedic medicines as the allopathic medicines are costlier and have side effects. Ayurvedic medicines are based on mainly plants/herbs and its extracts. The Ayurvedic drugs are derived from vegetable sources from the various parts of plants like root, stems, leaves, flowers, fruits or the plant as a whole. All the raw materials such as herbs, minerals etc. for preparation of Ayurvedic medicines are abundantly available in Bagshwar district.

Although there is tremendous potential of raw materials for Ayurvedic medicines and herbal based products in Bageshwar district, yet herbal based manufacturing units have not come up within the district as well as the State as compared to other hill States. Thus, there is a scope for development of units manufacturing herbal medicines in the district.

5.14 Tourism

The tourism industry in Uttarakhand is poised for phenomenal growth. Bageshwar district has been offering ample opportunities for developing the tourism sector for the interest of both domestic and international tourists. The tourism industry offers multifaceted tourism resources in the district. This would offer growth in economy and intensification of the industry in the coming years.

Tourism development may be harnessed by extending and improving tourism facilities at the main tourist points. Kausani, Baijnath, Bageshwar, Kapkot and Glaciers such as Pindari, Kafani, Sunderdunga, temples of Shikher, Kotbhamery, Pandu spot, Sama etc. are the attractive tourist spots generating considerable amount of revenue.

**Table No 5.20
Details of Tourism Potential in Bageshwar District**

Year	No. of Tourists	Revenue generated (Rs.in Lakh)	Employment
2007	76000	5.55	1000
2008 (up to October)	57569	5.69	N.A

Source: Tourism Department, Bageshwar, Year-2008

Tourist inflow during the year 2007 was almost 76000 which generated revenue to the tune of about Rs. 5.55 lakhs. The tourism sector has been improving over the years which is evident from table 5.20 i.e. during the first 10 months of year 2008, the tourism sector has generated revenue of Rs. 5.69 lakhs.

Till now, the State Government had laid emphasis on providing the necessary infrastructure in the State through the public sector. However, with the fast changing economic scenario, there is now a need to involve the private sector in development of tourism infrastructure and adopt the approach that will ensure best possible utilization of resources of the district and State in the long run.

The Bageshwar District is endowed with huge number of temples. The ancient Baijnath temple, dedicated to lord Shiva is flooded with devotees on the occasion of Shivarati. This place has a cluster of temples. Prominent among these are Bhairav temple, Dattatreya Maharaj, Ganga Mai temple, Hanuman temple, Kalika temple, Thingal Bhairav temple, Panchnam Junakhara and the Vaneswar temple. Apart from these, the district has Chandika temple, Shri Haru temple, Gauri Udiyan, Nilesar Dham, Swarg Ashram, Jwaladev, Bhikshwar Dham, Suraj Khund, Golu, Venu and Mahadev temples which attract sizable number of tourists throughout the year.

5.14.1 Excursions

The district of Bageshwar has plenty of excursions spots. Few of them are as follows:

Kanda

This picturesque place is a treat for nature lovers and is located at 25 Km from the town on Bageshwar Ghaukori road at the height of 1500 mt-1900 mt. above sea level. Ancient Bhadrakali temple is situated near Kanda.

Vijaypur

It is situated at the distance 30 Km from the town and offers beautiful views of the snow covered Himalayan ranges.

Bharari Kapkot

This place is about 25 Km from Bageshwar. It is the first night halt for trekkers to the Pindari glacier. This place nestles among the mountains.

Bajnath

It is located on the Bageshwar- Almora- Gwaldam road on the banks of river Gomti at the distance of 26 Km from Bageshwar. Many temples with idols of Shiva and Parvati can be seen from here.

Pandusthal

According to the legends, Pandusthal was the battleground, where Kauravas and Pandavas had fought. There exists a natural ground half a Km in breadth. It is accessible by bus from Garud to Jakhera and from Jakhera it is 20 Km trek through the mountains.

Kausani

It is a holiday resort at the height of 1890 mt and is situated at 39 Kms from Bageshwar. It has scenic beauty in the lap of nature. Gandhiji stayed here in 1929 and the Ashram is built here in his memory.

Trekking

Bageshwar district has couple of trekking routes, as listed below:

Pindari Glacier

Pindari glacier is a trekker's paradise and is best known trekking route in Kumaon. It is situated between the snow capped Nanda Devi and Nandakot mountains. The river Pindari originates from glaciers of Nandakot (6860 mt), Chhanguch (6322 mt) and Nandaghunti (6310 mt).

Kafni Glacier

It is situated at an altitude of 3852 mts. near Pindari Glacier. Many breathtaking views of Himalyan ranges are visible during the trek. It is accessible from a side road of Pindari.

Sunder Dunga Glacier

It is located at an altitude of 3880 mts. The entire trek route is endowed with natural and picturesque views of many Himalayan ranges.

Kailash Mansrovar

Bageshwar is situated on the way to Kailash Mansrovar, which is a Hindu pilgrimage. Thousands of Hindu pilgrims pass through Bageshwar every year for seeking salvation at the lotus feet of Lord Shiva.

5.15 Wild Life Sanctuaries

Bageshwar, the 'Abode of Gods' is an important pilgrim and tourist centre. It is located about 90 kms from Almora on the confluence of the rivers Saryu and Gomti. The town is famous for ancient Bagnath Temple and the annual Uttaraini fair held in January. The beautiful town is also a delight for adventure sport lovers. The famous Pindari, Sunderdunga and Kafni glaciers can be reached via Bageshwar. Bageshwar gets its name from this ancient temple of Lord Shiva set in the heart of the town. According to mythological legends, sage Markandey lived here and Lord Shiva in the form of Bagh or tiger visited the place.

6.1 Education

Education is a basic requirement. The government should utilize all its resources in a rational manner to increase the literacy since educated persons are assets for the country in its economic development. Education facilities are uniformly distributed throughout Bageshwar district. The district has only one Post Graduate College in Bageshwar. The block wise distribution of educational facilities such as junior basic schools, senior basic schools, higher secondary schools and colleges are given at Table 6.1.

Table 6.1
Educational facilities in Bageshwar District 2005-06

Sl. No.	Block	Junior Basic School	Senior Basic School	Higher Secondary School	Post Graduate College
1.	Kapkot	218	29	28	-
2.	Bageshwar	263	40	31	-
3.	Garud Baijnath	150	24	17	-
4.	Bageshwar (Urban)	11	3	2	1
Total		642	96	78	1

Source: Statistical Handbook, Bageshwar - 2006

In Bageshwar district, there are large numbers of schools, but higher order facilities like technical institutes are not available. This may be due to low population concentration, remote location and poor economic development, etc. There are 642 junior basic schools, 96 senior basic schools, 78 higher secondary schools and one post-graduate college to serve the needs of 2.47 lakh population of Bageshwar district (Census of India-2001).

Bageshwar block is having maximum number of junior basic schools (43%) including 1.7% in urban areas, followed by Kapkot 34% and Garud-Baijnath 23%. Similarly in terms of distribution of senior basic schools and higher secondary schools, Bageshwar block is placed at number one in the district. There is only one college in the district located in Bageshwar town

(urban). Students from different villages in the district have to travel to Bageshwar town to pursue higher education at district head quarters.

At present, the junior basic schools, senior basic schools and higher secondary schools are sufficient as per norms. Nevertheless, it has been noticed that quality of education is not at par with the standards. Most the schools are devoid of the facilities like computers, playgrounds and libraries, etc. apart from qualified teachers.

The villages in the Bageshwar and their accessibility to educational institutions for both boys and girls are indicated at Tables 6.2 to 6.4 (Drawing No.-6.1).

Table 6.2
Accessibility of Junior Basic Schools (2005-06)

Block	No %	schools within Villages boundary	Accessibility outside village (Km)				
			0-1	1-3	3-5	Above 5	Total
Kapkot	No.	146	14	39	3	0	202
	(%)	72.28	6.93	19.31	1.48	0.00	100
Bageshwar	No.	218	69	171	11	0	469
	(%)	46.48	14.71	36.46	2.35	0.00	100
Garud Baijnath	No.	117	19	46	3	0	185
	(%)	63.24	10.27	24.87	1.62	0.00	100
Total	No.	481	102	256	17	0	856
	(%)	56.19	11.92	29.91	1.98	0.00	100

Source: Statistical Handbook, Bageshwar – 2006

More than 50% of the villages within the district are having junior basic schools within the village. More than 70% of villages in Kapkot block are having schools within the village, followed by 63% villages in Garud- Baijnath block. Nearly 47% villages in Bageshwar block have junior basic schools within the villages as the villages of Bageshwar block are densely populated. About 14% villages in Bageshwar block are having schools within a distance of 0-1 Km. Approximately 2% of the total villages in the district are having junior basic schools at a distance beyond 3 Km. which shows uniform distribution of junior basic schools in the district.

Table 6.3
Block-wise villages having senior basic schools (boys) 2005-06

Block	Details	schools within Villages boundary	Accessibility outside village				
			0-1 Km	1-3 Km	3-5 Km	Above 5 Km	Total
Kapkot	No.	25	14	48	56	59	202
	(%)	12.38	6.93	23.76	27.72	29.21	100
Bageshwar	No.	28	35	175	157	74	469
	(%)	5.97	7.46	37.31	33.48	15.78	100
Garud-Baijnath	No.	19	8	71	50	37	185
	(%)	10.28	4.32	38.38	27.02	20.00	100
Total	No.	72	57	294	263	170	856
	(%)	8.41	6.66	34.35	30.72	19.86	100

Source: Statistical Handbook, Bageshwar – 2006

About 80% villages in the district are having senior boys schools within 5 Km. distance. The corresponding figure is 84% for Bageshwar, 80% for Garud-Baijnath and 70% for Kapkot block (refer Table 6.3). In spite of hilly terrain and remoteness it is observed that in Bageshwar most of boys senior basic schools are located within the 5 Km. distance of the villages.

Senior basic schools for girls are located within 21 villages (2.45%) of Bageshwar district. The majority of the villages (60.40%) in the district are having the senior basic schools for girls beyond 5 K.ms. The corresponding figure is 73.76% for Kapkot, 70.81% for Garud-Baijnath and 50.53% for Bageshwar block (refer Table 6.4). It is evident that most of the girl students need to travel beyond 5 K.ms for their basic education. The situation is discouraging as far as distribution of higher secondary schools for boys and girls are concerned.

Table 6.4
Blockwise villages having senior basic schools (girls) 2005-06

Block	Details	Schools within Village boundary	Accessibility outside villages (Km)				
			0-1	1-3	3-5	Above 5	Total
Kapkot	No.	4	2	21	26	149	202
	(%)	1.98	0.99	10.40	12.87	73.76	100
Bageshwar	No.	12	18	75	127	237	469
	(%)	2.56	3.84	15.99	27.08	50.53	100
Garud Baijnath	No.	5	3	16	30	131	185
	(%)	2.70	1.62	8.65	16.22	70.81	100
Total	No.	21	23	112	183	517	856
	(%)	2.45	2.69	13.08	21.38	60.40	100

Source: Statistical Handbook, Bageshwar – 2006

6.2 Teacher Student Ratio

The teacher student ratio is an important indicator to assess the level of education in the district. The overall teacher student ratio is 1:33 in the district (refer Table 6.5). This ratio is highest (1:39) in Garud-Baijnath followed by Kapkot (1:32) and Bageshwar (1:29). However, Bageshwar urban has highest (1:47) teacher student ratio, which is obvious. As per Sarva Siksha Abhiyan programme, the teacher student ratio should be 1:40. The teacher student ratio in the district is as per requirement and standard.

6.3 Other Technical Institutions

There is only one Industrial training Institution in the district having 23 students registered as against allotted quota of 64. It shows that there is no awareness among the students to pursue industrial training courses. The awareness for vocational course can be created for small scale industries so that need based vocational courses could be started for employment. Details of such institutions are given at table 6.6. Apart from this, there are informal education centres such as Anganwadi (296 No), Youth Organisation (360) and Mahila Mangal Dal (357).

Table 6.5
Block wise Teacher Student Ratio 2005-06

S.N	Block	No. of student	No. of Teacher	Ratio	Remarks
1	Kapkot	21952	693	32	one college with strength of 1296 Students including PG student and 7 teacher (Ratio 185)
2a	Bageshwar (Rural)	30805	1051	29	
2b	Bageshwar (Urban)	5748	123	47	
3	Garud-Baijnath	20344	520	39	
Total		78849	2387	33	

Source: Statistical Handbook, Bageshwar – 2006

Table 6.6
Technical Education Institutions in the District- 2005-06

Institutions	No. of Institutions	Sanctioned seat	Student (Filled)
ITI	1	64	23

Source: Statistical Handbook, Bageshwar – 2006

These institutions can help to educate the rural population at large in the district particularly by educating adults, women and rural youth. The district is devoid of the institutions such as junior teacher training centre, B.Ed college, nursing college and other technical education centres.

Major Findings

- i. Junior basic schools serve a large proportion of population. Number of senior basic and higher secondary schools slightly declined as some of the schools at this level have been merged.
- ii. The school facilities till junior basic level are adequate.
- iii. The education facilities are not evenly distributed and are located at distant places. For girl students, these are not easily accessible.
- iv. Urban area has higher order of education facilities and one college in the town to cater to the needs of population in and around the town in the district.
- v. The teacher student ratio is reasonable in government schools and it is much higher in private schools.

- vi. The social organizations such as youth organizations and Mahila mandals have shown an increasing trend. They play an important role in creating awareness among rural population about social, economic and welfare issues through folk songs, street play and various others programmes.
- vii. There is only one Industrial Training Institute located in Bageshwar town. Polytechnic and other higher order technical institutions are not available in the district. Even the existing strength of ITI is under utilized as number of seats for different trades remain vacant.
- viii. The district is lacking in quality Vocational training institutions such as information technology, computer courses and Para medical courses, etc.

6.4 Health

The equitable distribution of medical facilities at convenient locations in the district, especially those which serve the primary needs is far more important than any other facilities.

As it is evident from the table 6.7 that there are 12 Maternity and Child Welfare Centres, 64 Family Welfare Centers, 16 Allopathic Hospitals/Dispensaries, 15 Ayurvedic Dispensaries/Hospitals and 5 Homeopathic Hospitals/Dispensaries. The details are given at Drawing No. 6.2.

The block-wise distribution of health facilities indicates that Maternity and child welfare sub-centres are available in large numbers in Kapkot and Bageshwar blocks having 25 and 24 centers respectively followed by 15 in Garud Baijnath. The primary health centres are less in number viz. 4 in Kapkot, 3 Bageshwar and 2 in Garud- Baijnath block.

Table: 6.7
Distribution of health facilities in the district - 2005-06

Sl. No	Type of Health Facility	Kapkot	Bageshwar	Urban	Garud - Baijnath	Total
1.	Hosp./Disp.(Allop)	4	7	2	3	16
2.	Hosp./Disp.(Ayur)	7	5	1	2	15
3	Hosp/Disp.(Homeo)	2	-	1	2	5
4	Maternity & Child welfare centre	4	3	1	4	12
5	Maternity & Child welfare sub centre	25	24	--	15	64
6.	CHC	-	-	1	1	2
7.	PHC	4	3	--	2	9
	Total	46	42	6	29	123

Note: CHC(Community Health Centre), Hosp.(Hospital), Disp.(Dispensary), Allop-(Allopathic) Ayur. (Ayurvedic), Homeo. (Homeopathic) PHC (Primary health Centre)

Source: Statistical Handbook, Bageshwar - 2006.

Table 6.8
Accessibility of Health Facilities in Villages – 2005-06

Block	No. / %	Facility*Within villages	Facility at a distance (Km)				Total
			0-1	1-3	3-5	Above 5	
Kapkot	Nos.	29	6	47	63	57	202
	(%)	14.35	2.97	23.27	31.19	28.22	100
Bageshwar	Nos.	27	21	167	149	105	469
	(%)	5.76	4.48	35.61	31.77	22.38	100
Garud Baijnath	Nos.	19	12	50	69	35	185
	(%)	10.27	6.49	27.02	37.30	18.92	100
Total	Nos.	75	39	264	281	197	856
	(%)	8.76	4.56	30.84	32.83	23.01	100

* Family welfare centres/Sub centers within the villages

Source: Statistical Handbook, Bageshwar - 2006

It is observed from the table 6.8 above that 75 villages in the district have health facilities available within the village itself, that is only 8.76 per

cent. About 23 percent villages are located above the distance of 5 kms. to health facilities in the form of family welfare centres and sub-centres.

Therefore, more health facilities either as family welfare centre or sub-centre are required to serve the people.

Table 6.9
Block-wise distribution of health facilities (allopathic)

Block	Details	Facility* Within villages	Facility at a distance (Km)				
			0-1	1-3	3-5	Above 5	Total
Kapkot	No.	8	7	36	51	100	202
	(%)	3.96	3.47	17.82	25.25	49.50	100
Bageshwar	No.	10	15	105	101	238	469
	(%)	2.13	3.20	22.39	21.54	50.74	100
Garud Baijnath	No.	6	10	35	69	65	185
	(%)	3.24	5.41	18.92	37.30	35.13	100
Total	No.	24	32	176	221	403	856
	(%)	2.80	3.74	20.56	25.82	47.08	100

*Allopathic dispensaries/Hospitals/PHCs

Source: Statistical Handbook, Bageshwar - 2006.

It can be observed from the table that these facilities were located in 24 villages only. In 32 villages, allopathic health facilities were located outside the village at a distance of less than 1 Km. In Bageshwar block, it was located beyond 5 Km in 50.74 percent villages, followed by 49.50 percent in Kapkot. In 403 villages (47%) people have to travel beyond 5 kms for the allopathic health facility. In about 26 percentage of villages, people have to travel 3 to 5 kms. for this facility. In Garud Baijnath block, the allopathic facility is better than other 2 blocks. For 35% of villages, the people have to travel beyond 5 kms. Therefore Allopathic facilities in the Bageshwar and Kapkot blocks are to be increased and strengthened.

Table 6.10
Block wise Villages having different Ayurvedic health facilities

Block	No %	Facility* Within villages	Facility at a distance (Km)				
			0-1	1-3	3-5	Above 5	Total
Kapkot	No.	7	0	6	17	172	202
	(%)	3.47	0.00	2.97	8.42	85.14	100
Bageshwar	No.	5	1	32	70	361	469
	(%)	1.07	0.21	6.82	14.93	76.97	100
Garud Baijnath	No.	2	0	1	18	164	185
	(%)	1.08	0.00	0.54	9.73	88.65	100
Total	No.	14	1	39	105	697	856
	(%)	1.64	0.12	4.54	12.27	81.43	100

*Ayurvedic hospitals /dispensaries

Source: Statistical Handbook, Bageshwar - 2006.

It can be observed from the table 6.10 that Ayurvedic facilities existed in 14 villages only in the district. The people in 697 villages (81.43%) in the district have to travel beyond 5 Kms. from their villages to get treatment in Ayurvedic hospital or dispensaries.

Table 6.11
Block wise distribution of homeopathic facilities 2006

Block	Details	Facility* Within villages	Facility at a distance (Km)				
			0-1	1-3	3-5	Above 5	Total
Kapkot	No.	1	0	1	2	198	202
	(%)	0.50	0.00	0.50	0.99	98.01	100
Bageshwar	No.	0.00	1	22	25	421	469
	(%)	0.00	0.21	4.69	5.33	89.77	100
Garud Baijnath	No.	1	0	1	9	174	185
	(%)	0.54	0.00	0.54	4.86	94.06	100
Total	No.	2	1	24	36	793	856
	(%)	0.23	0.12	2.80	4.21	92.64	100

* Homeopathic Hospital/dispensary

Source: Statistical Handbook, Bageshwar - 2006

The homeopathic hospitals/dispensaries were available only in 2 villages (Table 6.11). The people in 793 villages (93%) in the district have to travel beyond 5 kms for homeopathic hospital/dispensaries. This indicates that homeopathic medicines in the district are not very popular.

Thus, it can be observed that the health facilities in the blocks and the district are scanty. This may be due to hilly terrain, distant location of facilities and remoteness of the settlements in the district. The facilities like Ayurvedic and Homeopathic can be developed in the district after creating awareness among the people. The allopathic hospitals need a wide coverage along with increase in quality in services.

Doctors

There are 6 doctors in Ayurvedic and 2 doctors in Homeopathic hospitals/dispensaries in the district. There is marginal increase in the number of doctors in the district from 16 in 2000-1 to 23 in 2002-03 and 33 in 2005-06.

Table 6.12
Distribution of doctors - 2005-06

Sl. No	Block	Population*	No. of doctors			
			PHC Allopathic. Dispensary / Hospital	Ayurvedic Dispensary / Hospital	Homeopathic/ Dispensary / Hospitals	Total
1.	Kapkot	82137	5	5	0	10
2.	Bageshwar	103686	5	4	0	9
3.	Garud-Baijnath	67070	4	2	1	7
4.	Urban	9592	5	1	1	7
	District	262485	19	12	2	33

Note: *Projected Population 2007
Statistical Handbook, Bageshwar, 2006

On an average one doctor has to take care of approximately 8000 population in all the 3 blocks for all the facilities. The doctor patient ratio is very high which can be strengthened by employing more doctors especially in rural hospitals.

Hospital Beds

A hospital bed is an important indicator to assess the availability of medical facilities in the district.

Table 6.13
Blockwise distribution of beds in different hospital/ dispensary

(2005-06)

Sl. No	Block	Allopathic hospital & Disp./ PHC	No. of Beds	Ayurvedic hospital & dispensary	No. of Beds	No. of Homeopathic hospital /Disp.	No. of Beds	Total No. of Beds
1	Kapkot	8	32	7	28	2	0	60
2	Bageshwar	10	70	5	16	--	0	86
3	Garud-Bajjnath	5	50	2	8	2	0	58
4	Urban	2	42	1	4	1	0	46
Total		25	194	15	56	5	0	250

Source: Statistical Handbook, Bageshwar 2006

It can be observed from Table 6.13 there are about 194 beds in the Allopathic and 56 beds in Ayurvedic hospital/dispensaries in the District. In total approximately one bed is available for 1000 population which shows acute shortage of hospital bed facilities. There are no beds in homeopathic hospital in the district.

6.5 Banks

In Bageshwar district there were 12 Nationalized Bank's during 2005-06. In addition, 12 branches of the Rural Banks and 4 branches of the other non-nationalized Banks are also operating in the district during the corresponding period. There are 8 bank branches in Kapkot, 9 in Bageshwar block and 6 in Garud-Bajjnath block serving the rural population. The remaining 5 branches of the Bank are functioning in the urban area only. In the Garud-Bajjnath the satellite branch of the Bank is functioning and there is no independent branch. It is observed that more rural and other nationalized banking institutions are required to give more coverage to the inhabitants of the district.

Findings

- There is shortage of PHCs/family and maternity welfare centers in the district. The health institutions are not easily accessible to the people due to their distant location, shortage of staff, medicines etc.
- Main hospitals are situated mostly in block headquarters. The road condition is deplorable. It is very difficult for the patients living in the remote villages of the district to reach hospitals in case of emergency.
- Due to lack of infrastructure in the villages, neither the doctors nor the paramedical staffs are interested in serving in such remote areas.
- No specialized facility is available even in the district headquarter of Bageshwar.

Physical infrastructure is the backbone for integrated and balanced development of a district. It includes roads, telecommunication, electricity, water supply and sanitation, etc. Agricultural prosperity and industrial development especially in the hills largely depends on the smooth functioning of transport, electricity and communication system. Good health service in the hills is also mostly dependent on good road network. Telecommunication services could be complementing to other investments in the development process which enhances the productivity and efficiency in other sectors.

7.1 Transport

7.1.1 Road Network

Bageshwar is a newly formed district. The existing road network in the district is poor. The total road length in the District is 491 km in 2003-04, which marginally increased to 511 km in 2004-05 and 517 Km. in 2005-06. Major increase in road length has been only due to increase in length of other district and village roads in the district. The Public Works Department (PWD) is the major construction agency of the roads, whose share is over 92% in total constructed roads (Refer table 7.1). Details of road network are given at Drawing No. 7.1.

Table 7.1
Length of pucca roads (km)

Sl.	Items	2003-04	2004-05	2005-06
1	State Highway	36	36	36
2	Main district roads	163	163	163
3	Other district and village roads	255	275	281
4	Roads constructed by forest Dept.	37	37	37
Total		491	511	517

Source: Statistical Handbook, Bageshwar - 2006.

Generally, in hilly areas, on an average more road length is required as compared to settlements in plain areas. The road alignment is lengthy and

takes lot of curves due to hilly terrain and steep contours to reach the other settlements. Total length of roads in Bageshwar District is less than the average road length in the other districts. Apart from PWD, the roads have been constructed by different agencies like Urban Local body, Irrigation & Forest Department, whose share is marginal (Refer table 7.2).

Table 7.2
Block-wise length of pucca roads 2005-06
(Length in Km)

S. No.	Block	Total Pucca roads	Roads constructed by PWD
1.	Kapkot	152	152
2.	Bageshwar	231	220
3.	Garud Baijnath	130	104
4.	Bageshwar Urban Area	4	4
Total		517	480

Source: Statistical Handbook, Bageshwar - 2006.

Bageshwar block has highest proportion of pucca roads (45.5%), followed by Kapkot (29.4%) and Garud- Baijnath (25.1%). The density of road network in Garud block is 0.91 Km per Sq. Km followed by Bageshwar 0.80 and Kapkot 0.25 Km per Sq. Km.

Table 7.3
Distribution of villages with pucca roads (2005-06)

Sl. No.	Block	Villages connected by all weather roads (population)			
		Less than 1000	1000-1499	Above 1500	Total
1.	Kapkot	73	1	3	77
2.	Bageshwar	233	2	3	238
3.	Garud-Baijnath	83	3	2	88
Total		389	6	8	403

Source: Statistical Handbook, Bageshwar - 2006.

From table 7.3, it can be observed that 403 villages out of total villages in the district (i.e. 856 inhabited villages) are linked by all weather roads. It is less than 50% of the total villages. Therefore, rests of the 50% of villages have to be linked with all weather roads (Pucca roads). In Bageshwar

block, 238 villages are connected by pucca roads, whereas 77 villages in Kapkot, 88 villages in Garud-Bajinath are connected by pucca roads.

Table 7.4
Block wise villages having pucca roads (2005-06)

S. No.	Block	Block- wise Population	Villages having pucca Road	No. of villages having pucca roads within (K.M.)				
				0-1	1-3	3-5	Above 5	Total
1.	Kapkot	82137	77	Nil	26	30	69	202
2.	Bageshwar	113278	238	Nil	35	76	120	469
3.	Garud-Bajinath	67070	88	Nil	18	51	28	185
Total		262485*	403	Nil	79	157	217	856

* DSO, Bageshwar (Estimated Population 2007)
Source: Statistical Handbook, Bageshwar - 2006

Table 7.5
Pucca Roads - Year 2007

(Length in km)

Sl. No.	Items	Kapkot	Bageshwar	Garud-Bajinath	Total
1	State Highway	-----	85.625	46.00	131.625
2	Main district roads	57	10.00	-----	67.00
3	Rural/Village roads	1186.37	138.84	59.42	1384.63
Total		1243.37	234.47	105.42	1583.23

Source: Regional Transport Officer, Bageshwar

The length of rural roads in the district increased to 1384.63 Kms in 2007. Nearly three fourths (1186.37 km) of the total roads is in Kapkot block alone. The roads under Kapkot block have been constructed under Centrally Sponsored Scheme of Pradhan Mantri Gram Sadak Yojana (PMGSY). Under the PMGSY the villages having population of 150 persons in the hilly area are covered.

7.1.2 Railway Station

There is no railway line passing through the district. The nearest railway station is Kathgodam, which is located at a distance of 184 Kms from Bageshwar.

7.1.3 Bus/Taxi /Tempo

In Bageshwar district, taxi and Maxi cabs are the common modes of public transport. It is the safest mode in the narrow hilly roads. The details of number of registered vehicles in Bageshwar is given at Table No. 7.6.

Table 7.6
Number of Registered Vehicles in Bageshwar

Sl. No.	Type of Vehicles	2007	2008 (upto Nov.)
1	Truck	12	8
2	R- van	10	4
3	Govt vehicle	9	-
4	Taxi	32	14
5	Maxi	73	17
6	Scooter	1	4
7	Motor Cycle	346	104
8	Private Car	72	35
9	Bus	3	-
10	Others	4	3
Total		562	189

Source: Regional Transport office, Bageshwar

The people prefer motorcycle as a personal mode of transport, which is evident from the above table. Though the number of private buses is ten times the govt. buses, and the passengers who travelled in private buses are 44 times to the passengers travelled by Govt. buses in a year. It may be because of high occupancy and more number of frequencies. However, private taxis and maxi cabs are generating comparatively high amount of revenue, followed by the private buses. The govt. buses are generating revenue to the tune of Rs. 21.87 Lakhs per annum, which is less. On an average there are two crew in Government and private buses whereas in private taxi/maxi the size is 1.45.

Table 7.7
Status of coverage of vehicles in Bageshwar, 2007

S No	Type of Bus	Govt.	Private	Other taxi /maxi
1	No. of Buses per day	5	50	349
2	No. of drivers and conductors	10	100	505
3	No. of Passenger travelled per year (in lakhs)	1.15	50.94	12.02
4	No of Mileage coverage km/day	552	2464	9200
5	Revenue Generated per year (Rs in lakhs)	21.86	86.40	301.32

Source: Regional Transport Office, Bageshwar

Revenue from transport in Bageshwar district is generated by Govt, Private and Other (Taxi/Maxi) are Rs. 2186058, Rs. 8640000 and Rs. 30132000 respectively. There are as many as 129 villages in Bageshwar block where people have to travel distance of more than 5 Kms to catch a bus. This figure is 70 for Kapkot and 29 for Garud-Bajinath blocks (Refer table 7.8).

Table 7.8
Block-wise distance of Bus/taxi/Tempo station/Stop for villages -2005-06

Sl. No	Block	Population	Stop within villages	No. of villages having transport facilities / stops within distance (km.)				
				0-1	1-3	3-5	Above 5	Total
1.	Kapkot	82137	49	10	39	34	70	202
2.	Bageshwar	113278	98	14	114	114	129	469
3.	Garud Bajinath	67070	45	14	43	54	29	185
	Total	262485	192	38	196	202	228	856

Source: 1. DSO, Bageshwar (Estimated Population 2007)

2. Source: Statistical Handbook, Bageshwar - 2006

Thus, out of the total villages, only 192 villages have easy access to bus/ taxi stops, whereas in 398 villages are situated between 1-3 and 3-5 Km and in 228 villages bus stops are located above 5 Km. Most people of Bageshwar district had to travel higher distance to avail Bus/Taxi facilities.

This is due to hilly topography and deficiency of transport system in the district. It also reflects to a great extent the backwardness and low level of development of the district.

7.2 Communication

Telecommunication is a vital and essential infrastructure for socio-economic development. It can replace personal travel to some extent and as such it can be cost effective. Provision of telecommunication facilities in Bageshwar district is essential because transport between settlements is very difficult due to poor road connectivity, remoteness, distance between settlements, presence of hilly and forest terrain etc. Therefore communication network is very essential in the hilly areas for dissemination of information, goods and other items in an effective and quick manner. Post office facilities are distributed throughout the district but as such there is no increase in number of post offices during 2003-04 to 2005-06. The ratio of PCO/Telephone to the total population is also less. It is observed that the number of PCOs have gone down in 2005 as most of people have started using their own land line or cell phone. (Refer Table 7.9).

The table 7.10 shows that rural area has more PCOs as compared to Bageshwar urban area. There are 901 PCOs all over the rural area in 3 blocks whereas there are 80 PCO in Bageshwar urban area. This shows that in rural area people are more dependent on PCO than individual phone connections. The telephone connections in urban Bageshwar is about 1844 as compared to 2712 in all 3 blocks. More than 50% of phone connections are in the urban area.

7.2.1 Telephone

Out of 856 villages, 230 villages have public telephones within the village itself. In 22 villages it is available at less than 1 Km distance and as the distance from the village increases, the number of villages having this facility also increases viz., in 333 villages this facility exists above 5 Km. In Bageshwar block 105 villages have access to phones in the villages, followed by 102 in Garuid Baijnath and 23 in Kapkot.

Table No.7.9
Yearwise Distribution of Communication Facilities

Year	Post Office	Telegraph/ Tele-printer	PCO	Telephone
2003-04	150	1	392	3211
2004-05	150	1	1196	3516
2005-06	150	1	981	4556

Source: Statistical Handbook, Bageshwar - 2006.

Table 7.10
Block-wise Distribution of communication facilities (2005-06)

Block	Post Offices	Telegraph/ Tele-printer	PCO	Telephone
Kapkot	50	-	75	853
Bageshwar	69	-	616	888
Garud Baijnath	29	-	210	971
Total Rural	148	-	901	2712
Urban	2	1	80	1844
Total	150	1	981	4556

Source: Statistical Handbook, Bageshwar, 2003 and 2006.

The availability of this facility on the basis of distance indicates telephones are mostly available above 5 km in all the blocks (Refer table 7.11).

Table 7.11
Access of villages to public telephone

Sl. No	Block	Block-wise Population	within villages having	No. of villages having public telephone within (Km.)				
				0-1	1-3	3-5	Above 5	Total
1.	Kapkot	82137	23	13	23	41	102	202
2.	Bageshwar	113278	105	6	78	69	211	469
3.	Garud-Bajinath	67070	102	3	28	32	20	185
Total		262485	230	22	129	142	333	856

Source: Statistical Handbook, Bageshwar - 2006.

7.2.2 Telegraph office

It can be observed from table 7.12 that out of 856 villages, the telegraph office is available in 807 villages (90 percent of villages) at a distance of more than 5 km. This facility exists at a distance of 1-3 km and 3-5 km only in 49 villages. The block wise distribution states that telegraph facility is largely available in Bageshwar. Thus Bageshwar is the only block where telegraph facility is accessible to large percentage of the population.

Table 7.12
Access of villages to telegraph office

Sl. No.	Block	Block wise Population	No. of villages having telegraph office with in KM				
			0-1	1-3	3-5	Above 5	Total
1.	Kapkot	82137	-	-	-	202	202
2.	Bageshwar	113278	-	23	26	420	469
3.	Garud-Bajinath	67070	-	-	-	185	185
	Total	262485	-	23	26	807	856

Source: Statistical Handbook, Bageshwar - 2006.

7.2.3 Post Office

In 148 villages, post offices are located in the village itself whereas in 711 villages (83%) this facility exists at a distance between 0-1 km and above 5 km.

Table 7.13
Access of villages to post office

Sl. No	Block	Block Population	No. of villages having	No. of villages having post office within (Km.)				
				0-1	1-3	3-5	Above 5	Total
1.	Kapkot	82137	50	21	61	53	17	202
2.	Bageshwar	113278	69	57	227	104	12	469
3.	Garud Bajinath	67070	28	16	82	45	14	185
	Total	262485	147	94	370	202	43	856

Source: Statistical Handbook, Bageshwar - 2006.

The block wise distribution states that Bageshwar has maximum number of villages (69) where post offices are easily accessible, followed by 50 villages in Kapkot and 29 in Garud-Baijnath (Refer table 7.13).

7.3 Water Supply

In the district, out of 856 villages 832 were completely covered under Tap/Hand pump India Mark 2 water supply scheme in 2002-03. This was reduced to 277 during 2005-06. The number of villages under this Scheme rose from 760 in 200-01 to 798 in 2001-02, benefiting 2.17 lakh persons. 26 villages benefited partially from this Scheme in the district, but this has been declining sharply since from 2000-01 viz., from 100 to 54 in 2001-02. This is a peculiar trend that the number of such villages under the scheme has declined.

The main source of water supply in the district is water tap and river. Bageshwar block has maximum of 469 connections serving 1.13 lakh population followed by Kapkot with 202 connections and Garud-Baijnath with 185 connections (Refer table 7.14).

Table 7.14
Physical Infrastructure in Bageshwar District (Water Supply)-2008

Name of Block	Source of water		No of Water Tank with Capacity	Water Quality	No. of Villages connected	
	Tap	River			Treated water	Population (2007)
Bageshwar	39	3	54 (732 KL)	Treated	469	113278
Kapkot	69	0	85 (813 (KL)	Treated	202	82137
Garud-Baijnath	39	0	36 (356 KL)	Treated	185	67070

Source: Peyjal Nigam Uttarakhand

In 2005-06, the blockwise distribution of water supply indicates that out of 277 villages in the district, the number of villages which have completely benefitted under the Scheme are 161 in Bageshwar followed by 62 in Kapkot and 54 in Garud Baijnath blocks. Out of 579 villages, 308 villages in Bageshwar, 140 in Kapkot and 131 in Garud Baijnath have partially benefited under the Scheme (Refer table 7.15).

Table 7.15
Year-wise and Block-wise status of water supply service in Villages

Year/ Block	No. of villages benefitted under Nal handpump India Mark-2 scheme			No of villages on the basis of sources used for irrigation		
	Fully benefitted	Partially benefitted	Population which benefitted	Well	Hand-pump	No of villages
1	2	3	4	5	6	7
2000-01	760	100	211277	-	-	860
2001-02	798	54	217368	-	-	852
2002-03	832	26	220132	-	-	858
2003-04	261	597	97810	-	-	858
2004-05	270	586	104895	-	-	856
2005-06	277	579	107718	-	-	856
Block-wise water supply 2005-06						
Kapkot	62	140	39402	-	-	202
Bageshwar	161	308	41112	-	-	469
Garud-Baijnath	54	131	27204	-	-	185
Rural	277	579	107718	-	-	856
Urban	-	-	-	-	-	-
District	277	579	107718	-	-	856

Source: Statistical Handbook, Bageshwar, 2003 & 2006

7.3.1 Existing water supply schemes

The pumping water supply scheme was introduced in Bageshwar town in 1975. The estimate for water supply was prepared in 1968-69 for a designed population of 6000 persons for the year 1997. The rate of water supply in the town is inadequate. Uttarakhand Jal Nigam, Bageshwar has prepared water supply project namely Kathayatbara Water Supply Scheme, which adopted standard of 40 lpcd for rural area and 90 lpcd for urban areas. The salient features of the scheme are given below.

The main MSERW pipe, with 200 mm diameter has a length of 25 Km and passes through forests and hilly areas. The head works are damaged

every year due to flood and pipelines also encounter damages during heavy rains due to landslides. It takes a few weeks or even more to reinstate water supply to the town. During the break down, the inhabitants of the town are forced to use untreated water from local sources.

With the creation of Bageshwar as district headquarters in 1997, the population of Bageshwar town and its adjoining villages has increased. Thus, the demand for water supply has been increasing in the district continuously. Keeping this in view, Kumoun Jal Sansthan has identified the Bageshwar re-organisation water supply system by pumping water from Saryu River. It has been estimated that by 2020 there will be need of 1 MLD water to serve 18291 persons (projected). The cost of Bageshwar re-organisation water supply scheme is estimated to Rs.444.93 lakhs (base year 2005). The nature of treatment will include sedimentation, coagulation, filtration and disinfection.

Table 7.16
Status of Kathayatbara Water Supply Scheme

Sl.No.	Particulars	Base Year 1990	Design Year 2005
1.	Name of town	Bageshwar	Bageshwar
2.	No. of villages	14	14
3.	Urban Population	5475	7320
4.	Rural Population	5182	6715
5.	Total Population	10657	14035
6.	Rate of Urban water supply		90 LPCD
7.	Rate of Rural water supply		40 LPCD
8.	Source of water		Lahur River
9.	Conveyance Main		28.84 Kms
10.	Distribution network		26.80 Kms
11.	Treatment	Coagulation, sedimentation, filtration & disinfection	

Source: Uttarakhand Peyjal Sansadhan

7.3.2 Natural Water Springs

Natural water springs exist in high altitude areas. Therefore, settlements located on ridges and on the higher slopes rely largely on then springs for water supply. However, depletion of natural water springs, reduction in discharge and pollution of surface and subsurface water sources has been observed in settlements of Kumaon Himalayan region, whose 50 per cent population is dependent on springs, particularly in villages that have experienced rapid growth and considerable construction activity. High concentration of buildings adjacent to springs and more paved areas has to less recharging or change in courses of aquifers. Clearing of trees for construction in some areas appears to have adversely affected the recharging of aquifers, thereby reducing spring discharge.

It is evident that the location and intensity of development, techniques of site development and practice of debris disposal have considerably influenced the quantity, as well as the quality of the discharge of springs in Bageshwar. Absence of proper sewerage system and proper solid waste management in the town are the main causes of pollution of spring water in the area. Besides, some natural factors, such as presence of minor metals and other inorganic pollutants in the soil/rocks are also responsible for pollution and poor quality of spring water.

7.4 Electricity

The Uttarakhand Power Corporation Ltd. (UPCL) and Uttarakhand Renewal Energy Development Agency (UREDA) are responsible for supply of electricity in the district. In Bageshwar district, out of total 856 villages, 843 villages (98%) were electrified as on March, 2008. The remaining 13 villages are identified for electrification. The status of electrified villages is given at table 7.17.

The power capacity (MW) of electric sub-stations of Bageshwar is highest 8.5 MW followed by Garud–Baijnath with capacity of 5.4 MW and Kalligair 4.05 MW. Uttarakhand Power Corporation Limited is main distributing agency and the generating Agency is Uttarakhand Jal Vidyut Nigam Ltd.

Table 7.17
Electricity facilities in Bageshwar Distt. 2008

Total Village in the district	856
Electrified villages up to march 2008	843
Unelectrified villages	13
No of villages to be electrified by UPCL	5
No of villages to be electrified by UREDA	8
No. of villages electrified by UPCL	791
No. of villages electrified by UREDA	52

Source: UPCL, Distribution Block, Bageshwar

A total of 22,021 houses have been connected by electricity connections in Bageshwar District (Refer Table 7.17).

Table 7.18
Electricity facilities in Bageshwar Distt. 2008

Block / Tehsil	Electric sub-station capacity in (MW)	Name of Distributor agency	Demand in MW	No.of connected house
Kapkot	2.7	UPCL	5.04	3552
Kafligair	4.05	UPCL	5.04	3619
Kanda	2.7	UPCL	5.04	3936
Garud- Baijnath	5.4	UPCL	5.04	6658
Bageshwar	8.5	UPCL	5.04	4256

Source: Electricity Distribution Department, Bageshwar

Table 7.19
Year –Wise distribution of electricity (K.W per hr)

Sl. No.	Item	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
1.	Domestic light and small user	15520	21360	13408	15408	18010	18398
2.	Commercial purpose	1231	2650	2952	3766	2602	3029
3.	Commercial power	1290	1220	2000	2654	1865	2521
4.	Light system for public	51	140	12	12	126	156
5.	Rail	-	-	-	---	---	---

6.	Agriculture electric power	433	2483	444	444	1065	329
7.	Use for other purpose	2400	6980	963	763	960	915
Total		20925	34833	19779	23047	24628	25348

Source: Statistical Handbook, Bageshwar, 2003 and 2006.

The total consumption of electricity for district was 20,925 (000 KW per hour) in 2000-01, which increased to 25,348 KW per hour during 2005-06 (Refer table 7.19). This may be due to increase in demand of electricity along with growth of population. It is observed that nearly 72% of the total electricity is consumed for domestic purposes followed by commercial and agricultural use. This clearly indicates that there has been shift in the use of electricity for specific purposes which may be due to change in policy regarding the use of electricity, less production etc.

Table 7.20
Electrification of scheduled caste basties in Bageshwar

Sl. No.	Year / Block	Electrified villages Others	No.of electrified SC basties	Unelectrified SC basties	Private Nalkup/ Pump-sets(Nos.)
1	2000-01	658	419	62	13
2	2001-02	680	422	58	13
3	2002-03	714	427	46	13
4	2003-04	740	452	43	13
5	2004-05	816	495	35	13
6	2005-06	838	503	27	13
Development Blocks 2005-06					
1	Kapkot	189	114	24	1
2	Bageshwar	465	266	2	8
3	Garud Baijnath	184	123	1	4
Total rural		838	503	27	13
Total Urban		----	----	----	--
Total district		838	503	27	13

Source: Statistical Handbook, Bageshwar - 2006.

Out of 658 electrified villages, 419 villages have scheduled caste population in 2000-01. The number of SC populated villages which are not electrified were 62 during the corresponding year. The rate of electrification of villages during 2000-01 to 2005-06 was very slow for total villages as well as SC/ST villages. The number of energized/private tube wells and pump sets remained constant (13) from 2000-01 to 2005-06 (Refer table 7.20).

Table 7.21
Electric Connections in Bageshwar Town -2007

Sl.No.	Electric Connections in Bageshwar	No. of Connections
1	Residential	2788
2	Commercial	640
3	Industrial	15
4	Others	06
5	Total	3449

Source: Electricity Distribution Office, Bageshwar

Table 7:21 shows that number of electric connections for residential and commercial are 2788 (80% of the total) and 640 (18%) respectively in Bageshwar district. The industrial connections are meager 15, which shows the industrial backwardness of the district.

7.5 Municipal Service and Solid Waste Management

The total urban population of the Bageshwar town is 7803 as per 2001 census. The town is spread over an area of 5 sqkm. The town has experienced rapid growth of surrounding areas as



Photo 7.1: View of solid waste collection system

the town hosts facilities of education, health, transport and various administrative functions. There is a pressure on the Municipal services. The areas around Bageshwar town and beyond Saryu River in the east of Bageshwar district headquarter are fast developing which has resulted in increase of Municipal boundary without adding any significant source of income.

Solid waste management is an important municipal service. Practically, there is only one land fill site with an area of 250 square metre for the disposal of solid waste generated in the municipal area. Municipality has one truck for dumping the solid waste and 30 bins for garbage collection.

Lack of proper guidelines, poor enforcement and management of urban development, unauthorized construction activity in the town, felling of trees, absence and inadequacy of sewerage and solid waste collection and disposal systems has led to pollution of ground water and springs to a large extent. Legislation and public awareness for safe disposal of debris from the construction sites are required in the town for proper management of solid waste.

7.6 Drainage and Sewerage system

Bageshwar town has no proper drainage and sewerage system. Garbage is thrown open on slopes and near the drains, which finds its way in the open drains. The status of garbage collection is very poor, particularly in periphery of the town. Bageshwar lacks sound sewage disposal system. There is no sewage system in the town. Sewage directly flows into Saryu and Gomati rivers, thereby polluting the river.

As per the records of the Municipal Board, 100% population of the town is using septic tanks. The seepage of sewage from soak pits/septic tanks also adds to the pollution problem. Some of it finds its way in the surface water drains within the town. The municipal bye-laws do not allow the construction of houses without built in septic tanks and soak pits. However, many houses in the Bageshwar town allow waste water to flow out in open spaces or unlined drains along roads and lanes creating serious health hazards.

Leaching rates are very high owing to the thin, mica rich soil and this does not help retain water.

The town is characterized by unplanned construction of houses along the ridge. The inhabitants do not follow the prescribed norms of 20 to 30 feet distance between the soak pits and local water sources to avoid contamination. At present most of the Nallahs and Dharas in and around Bageshwar town are heavily polluted with sewage. The Uttarakhand Pey Jal Sansadhan has initiated proposals for Sewerage Scheme in the Bageshwar town. It is necessary to improve the sanitary conditions of the town and to protect the people from the health hazards.

7.7 Disaster Management and other environmental effects

As a whole Uttarakhand state faces many kinds of disasters such as earthquake, landslide, ice erosion, flood, heavy rainfall, snakebite, fire forests etc. Bageshwar district is situated in zone IV of Seismic Zone and the earthquake is a frequent phenomenon in this region (Drawing No.7.2). In the event of earthquake disaster, there is likely to be loss of lives of people and animals, destruction of buildings and physical infrastructure, loss of agriculture land and public assets etc. Land erosion often causes deforestation in the district. The road transport is affected due to frequent landslides. Proper slopes with stabilization measures afforestation, construction of retaining wall would prevent the landslides. The disaster cell with the district magistrate office keeps the information about disaster and its mitigation measures. Details of hazard locations in Bageshwar district are given at Drawing No. 7.3.

7.7.1 Pollution

The town encounters water pollution from dumping of garbage into the rivers and water sources. The underground water gets polluted due to seepage of contaminated water. Concentration of sulphides, particularly in the monsoon season, has also been contributed to seepage of sewage through septic tanks and wastewater drains.

The pristine environment and sparse population mean that most parts of the state have very good air quality. Vehicles are the main source of air

pollution in the town. The hot, mix plant along the Bageshwar–Baijnath road also contributes to air pollution in the area.

The air quality monitoring results by the ADB showed that the concentration of suspended particulate matter (SPM) ranges from 77 micrograms per cubic meter of air (ug/m³) at Kafli Gair to 189 ug/m³ at Bageshwar. The concentration of respirable suspended particulate matter (RSPM) ranges from 23 ug/m³ at Kafli Gair to 62 ug/m³ at Bageshwar. The concentration of sulphur dioxide (SO₂) ranges from 12 ug/m³ at Basauli to 24 ug/m³ at Bageshwar, while nitrogen oxide (Nox) ranges from 20 ug/m³ at Kafli Gair to 45 ug/m³ at Bageshwar. This confirms the ambient air quality along all the sub project roads conforming with National Ambient Air Quality Standards. All the parameters monitored were found within permissible limits.

There are examples of soil pollution especially at Collectorate Office and Judicial Complex where new buildings were constructed. The soil cutting involves road cutting and site development works which amounts to significant soil erosion.

7.8 Urban Planning

Bageshwar town is situated on the confluence of two rivers Saryu and Gomti. The town is spread towards the right side of Saryu river across the bridge and down below the river on the left bank of the river. Latest developments including some of the Govt. offices are seen across the river. Rapid increase in urbanization has consumed valuable agricultural land. Presently, haphazard development has taken place in Bageshwar on agriculture land. The result is that there is no planned development in the town and hence there is no space for services to be provided in the town. Various educational institutes are coming up in an unplanned way.

The Notified Area Committee, Bageshwar is responsible for approval of building plans after getting no objection certificate from various departments like Jal Nigam, PWD, Electricity Board and Health Department etc. Formulation of Zoning regulations, Building bye-laws and various Guidelines for Geologic strata and Physiographic conditions, in accordance

with various standard codes is necessary for the district for the planned development.

7.8.1 Master plan for Kausani Regulated area

Kausani is a hill station situated in Garud tehsil of Bageshwar district having population of 8420 (1991) and area of 582.77 ha. The Kausani – Lwesal regulated area comprises of 22 revenue villages. Kausani offers the magic of the deep pine forests and the majestic mountains. Kausani is a destination to Himalayan peaks like Trisul, Nanda Devi and Pauchchi. Master Plan for Kausani settlement in the district was prepared by the Town Planning Department of Uttarakhand state. The objectives of the Kausani Master Plan are to control the development of the Kausani regulated area and to plan the area as environmentally and eco-sensitively. The plan has come out with the policy for physical development in the regulated area and has given the perspective approach for multi-sector developments, conservation of the area, preservation of ecology and grouping and formation of clusters for the tourism development. The Plan has identified eco-sensitive areas and areas for tourism development and suggested land use policy for tourism development.

7.8.2 Bageshwar Urban area

The Draft Master Plan of Bageshwar town is under preparation by the State Town and Country Planning Department. The planning area comprises of 19 revenue villages along with Bageshwar Council area. The town has 7 municipal wards. The Master Plan will facilitate planned development in environmentally sustainable way of Bageshwar town and the adjoining regulated area.

8.1 Institutional Set Up

Under Panchayati Raj System of governance, Gram (Village) Panchayat is the basic unit of administration. Uttarakhand was carved out of Uttar Pradesh in 2001. Hence, UP Panchayati Raj Act 1947 and UP Kshetra Panchayats and Zila Panchayats Act 1961, Uttarakhand Anukoolan and UP Antarim Adesh -2002 have been extended to Uttarakhand with necessary amendments. The enabling Act of the 73rd Constitutional Amendment Act (CAA) in Uttarakhand mandates wide areas and functions for Panchayati Raj Institutions in respect of socio-economic development, survey, monitoring and execution of various rural development programmes. The Panchayati Raj system has three levels i.e. Village, Block and District. Mahatma Gandhi advocated Panchayati Raj system as a decentralized form of government where each village is responsible for its own affairs as the foundation of Indian political system. Uttarakhand adopted this system in 2002 in light of 73rd CAA, 1992.

The Ministry of Panchayati Raj (Govt. of India), which came into existence on 27th May 2004 looks after matters relating to Panchayati Raj. The Ministry is responsible for the work of advocacy and monitoring of the implementation of Constitution (73rd Amendment) Act, 1992 and the Provisions of the Panchayats (Extension to the Scheduled area) Act, 1996, to ensure that the State Panchayati Raj Acts adhere to the provisions of the above mentioned Act are implemented in true spirit. The Ministry attaches great importance to the capacity building of elected representatives and officials of Panchayati Raj Institutions (PRIs) as well as functionaries involved in the Rural Development Programmes.

8.2 Existing Status

The State of Uttarakhand has 13 districts, with 49 Tehsils, 95 Development Blocks, 671 Nyaya Panchayats and 7227 Gram Panchayats. The total population of 84.89 lakhs of the State is confined to 360 Zila

Panchayat wards, 3152 Kshetra Panchayat wards and 46734 Gram Panchayat wards.

The district of Bageshwar has 902 revenue villages (856 inhabited) which are divided in 60 Patwar areas, 35 Nyaya Panchayat (Judicial), 363 Village Panchayats and 519 Forest Panchayats. District is sub-divided in 3 Blocks and 5 Tehsils, including Kaflogair sub-tehsil. Bageshwar Town has a Municipal Council with 7 wards (Table 8.1). It is spread in area of 5 km sq. including 19 revenue villages within the Municipal limits.

District Panchayati Raj Office, Bageshwar has reported that Bageshwar District adopted the following provisions as per 73rd Constitution Amendment Act.

- i. Establishment of a three tier structure like Gram Panchayat, Kshetra Panchayat, Zila Panchayat.
- ii. Establishment of Gram Sabhas (open meeting) at village level.
- iii. Six Different Development Committees were constituted as per Uttarakhand Kshetra Panchayat and Zila Panchayat Act, 1961 (Reported by EO, Zila Panchayat.)
- iv. Provision for regular election of all three tiers.
- v. Provisions of 50% seats for women, 19% for Scheduled Castes, 14% for Other Backward Castes and 4% Scheduled Tribe.
- vi. Establishment of District Panchayati Raj Office by State government which manages the fund and is responsible for reservation in Panchayati Raj Institutions.
- vii. District Planning Committees have not been constituted.
- viii. The 14 subjects are transferred to Panchayats according to G.O.No.29 October 2003, Panchayati Raj Deptt. 622/PGA, under Uttar Pradesh Kshetra Panchayat and Zila Panchayat Act, 1961. The subjects include Drinking (Potable) Water, Rural Housing, Poverty Alleviation, Primary education, Adult and official education, Library, Cultural Programmes, (activities), Family welfare, Health and Sanitation programmes, Women and child development, Social welfare, Public Distribution System, Small irrigation and Agriculture (Watershed).

Table 8.1
Details of Panchayati Raj Institutions (2005-06)

Panchayati Raj Institutions	Block			
	Kapkot	Bageshwar	Garud Baijnath	Total
Total Inhabited village	202	469	185	856
Nyaya Panchayats	12	16	7	35
Gram Panchayats	106	160	97	363
Panchatghar	97	145	88	330
No of Khsetra panchayats	1	1	1	3
No of Municipal council	0	1	0	1
No of Wards	0	7	0	7

Source: Statistical Handbook, Bageshwar - 2006.

8.3 Existing Development Administration

Development Administration and Management at Bageshwar district is mainly based on a three-tier structure i.e. Gram Panchayat, Kshetra Panchayat and Zila Panchayat (Annexure-1).

8.3.1 Gram Panchayat

Panchayat Raj System has been adopted in order to strengthen the village functions and powers for undertaking development programmes. Earlier Village Panchayats had limited powers. The transparency aspects was lacking in village development schemes. The 73rd CAA was adopted and Finance Commission was set up which transformed the Panchayati Raj System. The Village Panchayats were strengthened and given adequate powers to formulate development schemes, to implement and monitor implementation at village level. The Gram Panchayat is headed by Gram Pradhan who is the elected representative. The Village Level Officer (Gram Panchayat Development Officer) is a representative of the administration, who works under District Panchayati Raj Officer and Block Development Officer. Gram Panchayat Development Officer works at the grass root level i.e. at the Village Panchayat level. The funds are managed at Panchayat level. Panchayats also convene meeting of the Gram Sabha to assess the problems of the village and to identify the developmental schemes within their respective areas, where government officials are also invited.

The three tier structure of development administration within the district functions in close co-operation with administration and democratic set up at each level.

8.3.2 Kshetra Panchayat

Block Pramukh is an elected representative from the Kshetra Panchayat who is the political head of the block. The Block Development Officer (BDO) who is administrative head of the block, co-ordinates the work of Kshetra Panchayat under his jurisdiction at block level. The block level committee assists the administration to identify and take-up the development works at block level.

8.3.3 Zila Panchayat

President is the hierarchical head of the Zila Panchayat. The Additional Chief Development Officer of Zila Parishad is its administrative head. There are six different development committees constituted by Uttarakhand, Kshetra Panchayat and Zila Panchayat Act, 1961. Every committee has five members. Main functions of committees are to prepare the plan/scheme for development of Zila Panchayat areas. These are as follows:

- i. **Planning and Development Committee:** The planning and development committee is headed by President, Zila Panchayat. The Planning & Development Committee plays an important role for making and forwarding the development proposals for the general meeting. President and Vice president of Zila Panchayat, MLAs & local MP, Representatives of Zila Panchayat & Block Pramukh of Kshetra Panchayats approve the proposals in general meeting. After approval of general meeting, the proposals and schemes are implemented by Additional Chief Development Officer, Zila Panchayat.
- ii. **Education Committee:** Implementation of programmes/schemes relating to basic, adult and unofficial education in the district.
- iii. **Construction-work Committee:** All type of construction works and maintenance and ensuring the quality of government assets.

- iv. **Health and welfare Committee:** Committee is concerned with treatment, health & family planning and social welfare matters of the district.
- v. **Administrative Committee:** This Committee is concerned with matter relating to the Staff of Zila Panchayat and rationing system.
- vi. **Water Management Committee:** Implementing and maintenance work related to Tube wells and Drinking water etc.

As per the Notification No. 4077(i) 33-2-99-48 G /99, under Section 65 of U.P State, Kshetra Panchayat and Zila Panchayat Act, 1961, dated 29 July, 1999, Panchayati Raj section-2 (UP), President, Zila Panchayat is the Chairman for Planning, Construction Committee and Administrative Committee. Education Committee is headed by Vice president, Zila Panchayat. The Chairman of remaining committees like construction work committee, health & welfare committee and water management committee is elected by members of Zila Panchayat representatives among the representatives of Zila Panchayats as per the provision of this act.

Additional Chief Development Officer, Zila Panchayat Bageshwar is entrusted with various development schemes of socio-economic development such as (Cement Concrete Road, Brick roads) Drinking water scheme, Building construction, Toilet construction, Rain water harvesting, Rain water drains, Bio-gas plants etc.

In addition, rural development schemes are implemented through District Rural Development Agency (DRDA), Bageshwar. Project Director is responsible for rural development, who works under the Chief Development Officer, Zila Parishad. All Central & State Govt. Schemes for housing and Pradhan Mantri Grameen Sadak Yojana, National Rural Employment Guarantee Scheme and Local Area Funds scheme of MP/MLAs are implemented through the Blocks.

At the district level, Rural Development Agency plays an important role in coordinating and executing rural development schemes in the district. At Bageshwar District, DRDA, co-ordinates the execution of large number of central and state sponsored rural development schemes e.g National Bio-Gas

Development Programmes, Indira Awas Yojana, Pradhan Mantri Gramodaya Yojana (Awas scheme for Rural), Additional Indira Awas Yojana (Land-Slides), Swarn Jayanti Rural Self-employment Yojana, Sampurn Gramin Rojgar Yojana I & II, DPAP & IWDP. Bageshwar is covered by National Rural Employment Guarantee Yojana which is being implemented through DRDA since April 2008.

However, the line departments of Bageshwar district such as PWD, Education, Health, Irrigation, Agriculture, Animal Husbandry and Disaster Management Centers work under District Magistrate. Sarpanch is mainly responsible for plantation and conservation of forests at grass root level as per the Van Panchayat Rules (2005). Uttarakhand Renewal Energy Development Agency (UREDA) undertakes the electricity supply in remote villages area. Uttarakhand Power Corporation Ltd, Uttaranchal Jal Sansthan and Development Banks also play an important role in the development of Bageshwar District. Public Works Department has been entrusted with the responsibility of construction works like Awas, Government Offices, Road construction/repair works and also road construction work under Pradhan Mantri Sadak Yojana.

The Panchayati Raj Institutions are involved in the identification of beneficiaries, monitoring and implementation of various socio-economic development schemes including National Rural Employment Guarantee schemes. The Panchayats are required to prepare annual plans which are integrated at the higher level.

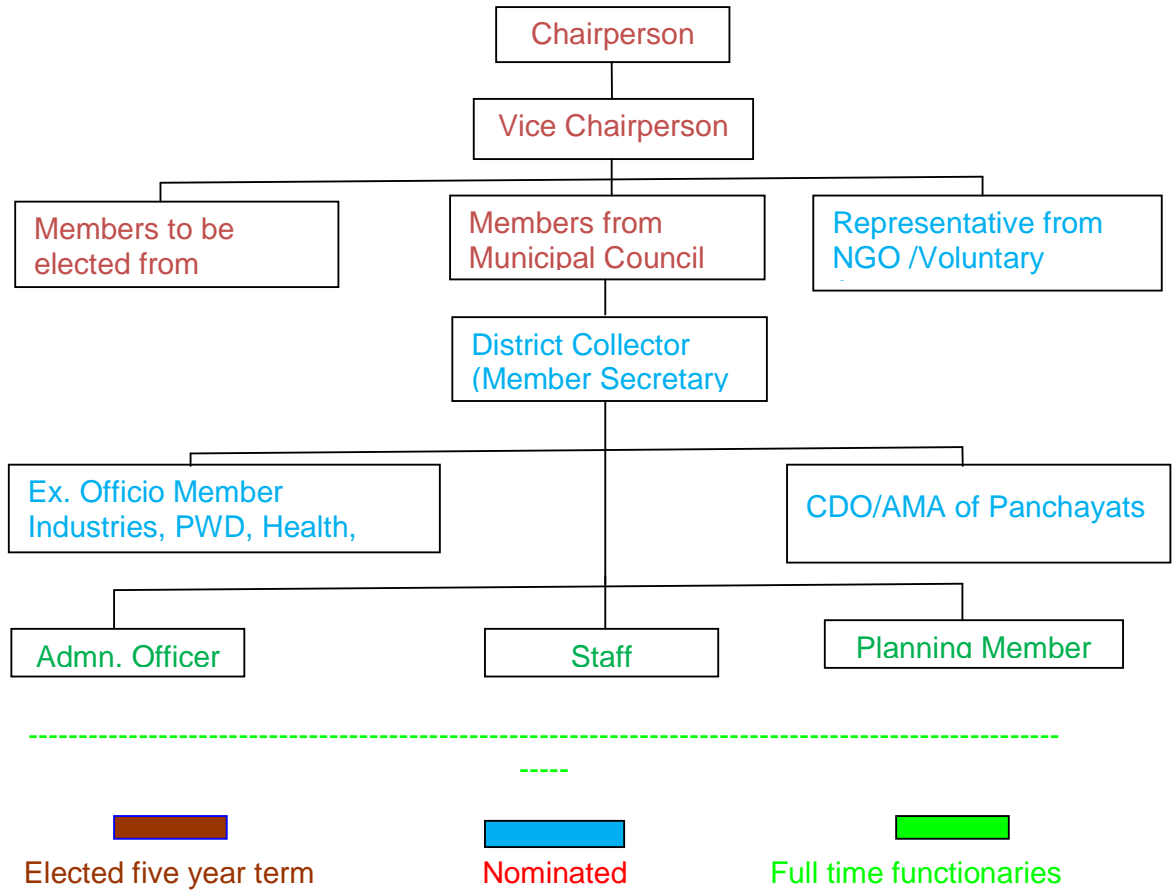
8.3 Suggested Development Mechanism

The Panchayats have been an integral part of rural life in India. The 73rd CAA, 1992 has institutionalized the Panchayati Raj institution at the village, intermediate and districts level.

The Constitution (74th Amendment) Act, 1992 provides for a District Planning Committee (DPC) with wide ranging powers and functions to plan and develop the district by consolidating the plans prepared by the Panchayat

and the Municipalities. The DPC has been assigned the work to prepare the draft district plan for the district including the urban and the rural areas.

Figure 8.1
Proposed District Planning Committee



(Based on Model Laws of UDPI Guidelines, Volume 2A, Ministry of Urban Affairs and Employment, Govt. of India, August, 1996).

**Figure 8.2
District Planning Process**

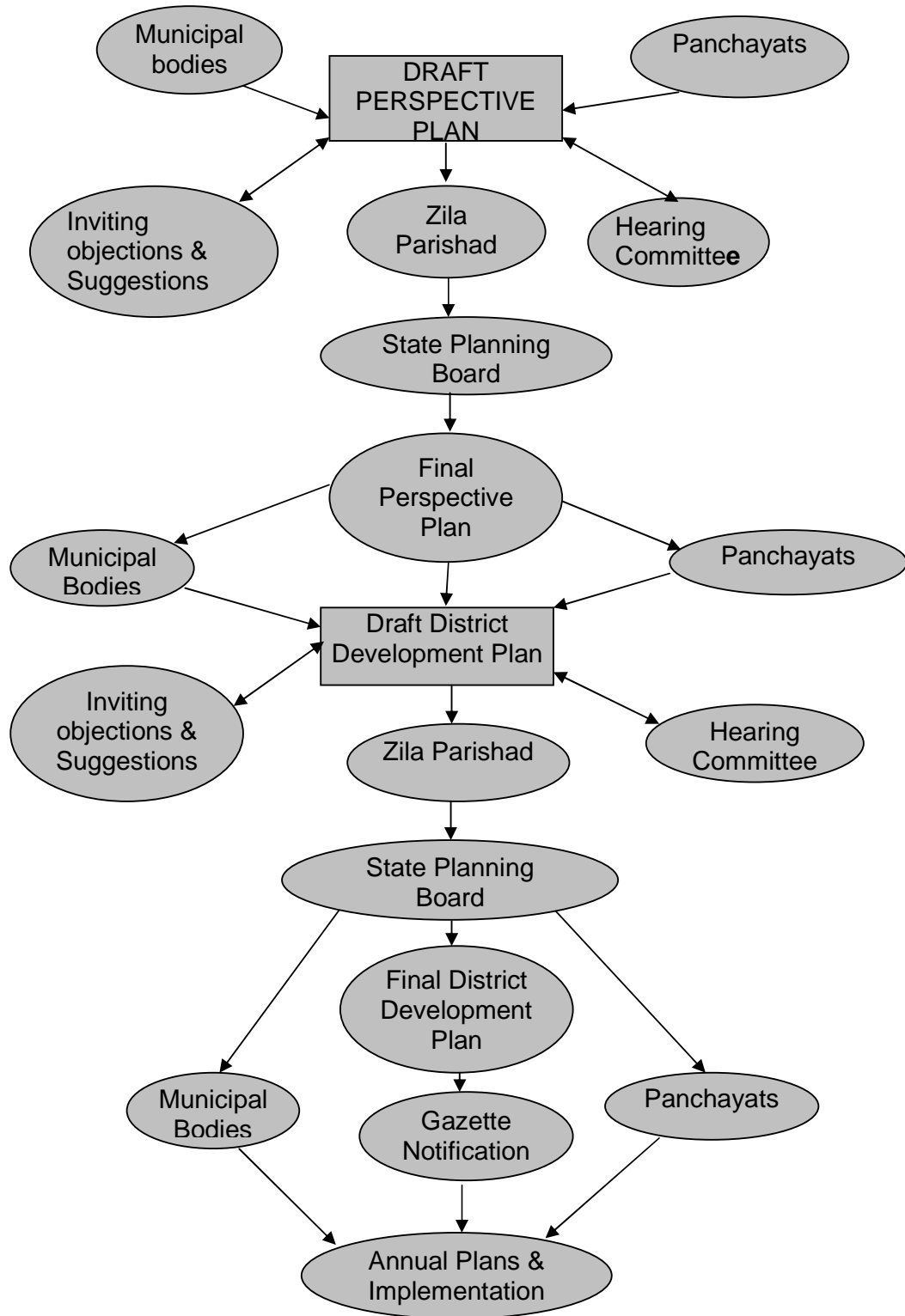
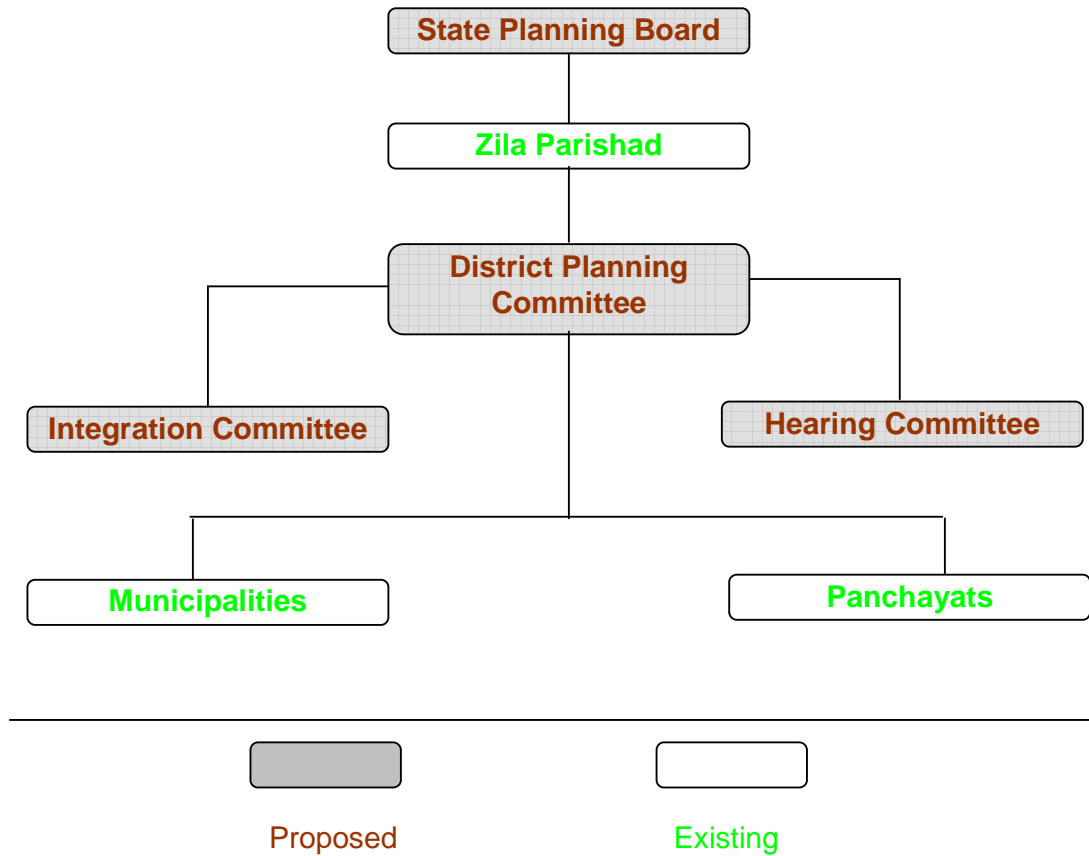


Figure 8.3
Hierarchy of Planning Bodies



(Proposed hierarchy of Planning Bodies is based on Model Laws of UDPI Guidelines, Volume 2A, Ministry of Urban Affairs and Employment, Govt. of India, August, 1996).

Bageshwar is one of the backward districts of Uttarakhand and lacks basic amenities. Government has taken several initiatives for its infrastructure development. These include the projects related to the electricity, water, health, roads, education, cooperative societies and tourism.

According to data provided by the Department of Information and Public Relations, Rs. 60 crore was spent on health schemes followed by Rs. 43 crores on education and Rs.41 crore on construction of roads during the period November, 2000 to March, 2005. The agriculture sector also picked up considerably by virtue of implementation of various schemes successfully. Similarly, condition of Schedule Castes and Schedule Tribes in the district has also improved.

9.1 RURAL EMPLOYMENT GUARANTEE SCHEME

The Rural Employment Guarantee Scheme is in operation in Bageshwar district since April 2008 under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The Scheme aims to provide 100 days employment in a financial year to a registered rural household.

It is demand driven scheme. Job cards are issued to all beneficiaries. The major works taken up under this Scheme are related to water and soil conservation, forestation, construction of minor irrigation canals, renovation of traditional water sources, land development of infertile land, construction of drains in villages, construction of all weather roads (AWR). The 90% of funds are borne by the Central Government. The average expenditure per person per day is worked out as Rs.110/- and average wage cost per person per day for unskilled labour is Rs. 75/-. MGNREGA is also seen as opportunity for dignified employment. Under the Scheme, the contractors are banned and Gram Panchayats are the main implementing agency. By the end of April 2008, 181 Gram Panchayats were covered under this Scheme from Bageshwar block.

Details of schemes implemented under Swarn Jayanti Gram Rozgar Yojana (SGRY) during 2007-08 and status in Bageshwar District is given at

Table 9.1 and 9.2. During 2008-09 (as on November, 2008) a total of 37736 households were issued job cards which includes 29.54% of SC/ST population. During the corresponding period a total of 1.24 lakh mandays work created in the District inclusive of 25.16% of SC/ST population (Refer Table 9.3) against the total target of 294186.

Table 9.1
Details of schemes under SGRY during 2007-08

Sl.No.	Name of Schemes	No.
1.	Swarojgar	45
2.	Chal/ Skin / Gul/ Rain water harvesting	37
3.	Khadanja in streets/roads	26
4.	Cement Concrete Roads	45
5.	Plantation	9
6.	Field	1
7.	Baratghar	1
8.	Park beautification	5
9.	Land erosion/conservation/protection	1
10.	Wall	1
11.	Construction of culverts	3
12.	Development building	1
13.	Dharmshala	3
14.	Public Toilets	2
15.	Panchayat Ghar	1
16.	Toilets	2
17.	Boundary Wall	1

Source: AMA, Zila Panchayat, Bageshwar

Table 9.2**Details of schemes under SGRY up to 31.03.08****(Rs. in Lakh)**

Name of Scheme	Projects completed	Total estimated cost	Remarks
SGRY	71	26.15	Rs.25.529 lakhs required to make the full payment.

Source: Zila Panchayat office, Bageshwar

Table 9.3**Employment Generation under NREGA in Bageshwar district during 2008-09 (upto Nov. 2008)**

No. of household issued job cards	SC	ST	Other	Total
	10782	364	26590	37736
Mandays created	31138	88	29089	124103

Source: District Development Officer, Bageshwar.

The district administration has spent an amount of Rs.162.55 lakhs out of Rs. 308.56 lakh (52.7%) under MGNREGA (Refer Table 9.4).

Table 9.4**Performance of MGNREGA (2008-09)****(Rs. in lakhs)**

Bageshwar district	Central Budget	State Budget	Total Budget	Expenditure
1.	293.70	15.36	308.56	162.55

Source: District Development Officer, Bageshwar.

The status of fund allocated to Zila Panchayats under different heads are given at table 9.5. Details of progress of the MLA Local Area Development Fund and MPLADS during 2008-09 are given at table 9.6 and 9.7.

Table 9.5
Details of fund allocation during 2007-08, Bageshwar

(Rs. in lakhs)

Items	Amount allocated	Expenditure	Balance	Remarks
SGRY	97.04	97.04	0.00	Distribution of food grain works executed for Gen / Water harvesting / Scheduled class under Sampurna Grameen Rozgar Yojana.
SGRY(Food grains) In quintals	3350	3350	0.00	
Draught relief	5.54	5.54	0.00	
MLA Fund(Local area development Fund)	164.77	73.84	90.93	Execution of Construction works
SCP	110.75	47.40	63.35	Barat Ghar and Culvert construction work in SC dominated area.
Natural Calamities	53.30	39.91	13.39	Construction and maintenance of assets related to natural calamities.
MP Fund(Local area development fund)	41.58	39.02	2.56	Various construction works in rural area.
12th Finance commissions fund	47.27	27.06	20.21	Asset generation along with maintenance of drinking water schemes under Swajal Dhara.
State Finance commissions fund	164.84	132.28	32.56	For generation of remaining wealth assets.
Honorarium (Honorable Chairman) State Finance	0.48	0.48	0.00	

Source: Zila Panchayat office, Bageshwar

Table 9.6
Details of progress of the MLA LADS Fund in 2008-09

(Rs. in lakhs)

Name of Zila Panchayat	Balance (As on 1.4.08)	Allocation 2008-09	Total	Expenditure (As on 28.11.08)	Balance
Bageshwar	6.11	45.975	52.085	25.50	26.585

Source: Zila Panchayat office, Bageshwar

Table 9.7
Details of progress of schemes under MPLADS (as on 1/12/2008).

(Rs. in lakhs)

S.No.	Released by GOI	Amount available	Amount Sanctioned	Expenditure Incurred	Unspent Balance.
Uttarakhand	181.25	183.77*	172.56	156.35	27.42
All India	19115.25	19524.98*	18818.40	17342.21	2182.77

* includes amount available with Nodal District with Interest etc.

Source: DDO, Bageshwar

Some of the Schemes implemented in the district under water conservation and harvesting, drought proofing, etc. are given at table 9.8. However, Micro irrigation works, provision of irrigation facility to land, renovation of traditional water bodies, land development, flood control and protection and rural connectivity Schemes implemented in the District have shown no progress as on November, 2008.

Table 9.8
Details of progress of the Development schemes during 2008-09

(Rs.in lakhs)

S.No.	Work/activities	Completed works		On-going works	
		Unit	Expenditure	Unit	Expenditure
1.	Water conservation and water harvesting	112	23.84	299	75.485
2.	Drought Proofing	14	7.91	106	13.60
	Total	126	31.75	405	89.085

Source: DDO, Bageshwar.

9.2 SWARNA GRAMIN YOJANA SCHEME (SGYS)

The objective of this Scheme is to provide sustainable income to the rural poor. It covers the families below the poverty line. Under the Scheme, Self Help Groups (SHG) have been formed in the villages. There are 462 SHGs in Bageshwar Block. Bank loan of about Rs.10,000/- is distributed to each SHG. The works such as dairy farming, horticulture, construction of

Poly House (Green House) for vegetable plants etc. are covered. The cultivation of Pinus species (Chir), the making of wall frame and showcase furniture are other activities under SGYS. There is special provision for physically handicapped and SC/ST. It covers all aspects of self employment such as training, credit technology, infrastructure, marketing and creation of self help groups. The activities are identified with the approval of Panchayat Samities.

9.3 INDIRA AWAS YOJANA

Indira Awas Yojna (IAY) is implemented by the District Administration with an aim to provide shelter to people below poverty line. The allocation of funds is decided on the basis of poverty ratio and housing shortage. The Scheme is financed by Central Government. Rs.38,500/- is given as a subsidy to the beneficiaries by the State and Central Government for the construction of rural houses. The amount is deposited in the name of beneficiary in a bank account. As a pre requirement, the beneficiary should own land in his or her name. Moreover, the beneficiary should not have any own house. In Bageshwar Block 60% of the people are not having their own land. This is a major issue for successful implementation of the scheme. The details of houses constructed under IAY is given in Table 9.9.

Table 9.9
Indira Awas Yojana in Bageshwar District

Schemes	No. of Houses approved		No. of Houses completed		Cost (Rs. in Lakh)	
	2007-08	2008-09	2007-08	2008-09	2007-08	2008-09
Kapkot	75	74	75	35	20.63	13.30
Bageshwar	74	74	74	37	20.35	14.50
Garud Bajjnath	72	72	72	31	19.80	14.70
	221	220	221	103	60.78	42.50

Source: Project Director, DRDA, Bageshwar

Pradhan Mantri Gram Sadak Yojana

Government has launched the Pradhan Mantri Gram Sadak Yojana (PMGSY) on 25th December, 2000 to provide all-weather access to unconnected habitations. The PMGSY is a 100% Centrally Sponsored

Scheme. The primary objective of the PMGSY is to provide connectivity, by way of all-weather roads with necessary culverts and cross-drainage works to the eligible unconnected habitations in the rural areas. All unconnected habitations with a population of 1000 persons and above were to be covered in three years (2000-2003) and habitations with 500 persons and above by the end of the Tenth Plan Period (2007). However, in respect of the hill states, the Scheme aims to connect habitations with a population of 250 persons and above.

Local Area Development Fund

The Member of Parliament Local Area Development Scheme (MPLADS) is in operation in the country since 1993-94. The objective of the Scheme is to create the durable community assets based on the felt needs of local area with recommendation of Members of Parliaments (MPs). The major components under this Scheme include drinking water, primary education, public health, sanitation and roads, scheme. The District Administration is responsible to identify the implementing agency capable of executing the eligible work, qualitatively, timely and satisfactorily. The Ministry of Statistics & Programme Implementation is responsible for the policy formulation, release of funds and prescribing monitoring mechanism for implementation.

The details of schemes under MLA and MP LADS are given at table 9.10.

Table 9.10
Details of schemes under MLA & MP LADS (2007-08)

(Rs. in Lakh)

Block/MP/MLA	Approved fund	No. of schemes Completed	No. of Scheme Uncompleted	Total Cost of schemes
MLA Fund	375.00	197	274	373.15
MP Fund	25.00	-	-	-
Total MPL	400.00	197.00	274	373.15

Source : Project Director, DRDA, Bageshwar

Credit-cum-Subsidy Rural Housing Scheme

There are a large number of households in the rural areas, which could not be covered under IAY. Most of them are below the poverty line. They were not covered under this Scheme as either they do not fall within the range

of eligibility or due to the limits imposed by the available budget. On the other

Tables 9.11

Details of schemes under MLA & MP LADS (2008-09)

(Rs. in Lakh)

Fund Type	Approved fund	No. of schemes completed	No. of Schemes uncompleted	Total Cost
MLA Fund	363.75	0	383	289.86
MP Fund	46.00	45	3	46.00
Total	409.75	45	386	335.86

Source: Project Director, DRDA, Bageshwar

hand, due to limited repayment capacity, these rural households could not take benefit of fully loan based schemes offered by some of the housing finance institutions. The needs of this large majority are met through this Scheme which is part credit and part subsidy based. The introduction of a part credit, part subsidy based scheme is an important step in the direction of redefining the role of the Government from that of a 'provider' to a 'facilitator' as envisaged in the National Housing and Habitat Policy, 1998.

The target groups under the Credit-cum-Subsidy Scheme are rural households having an annual income upto Rs.32000/- only. However, below poverty line rural households are given preference. At least a minimum of 60% of the funds allocated under this Scheme as subsidy to each State, are proposed to be utilized in financing the construction for Scheduled Castes, Scheduled Tribes and freed bonded labourers. The State may independently decide as to whether it desires to implement this Scheme throughout the State or within a few districts/blocks.



Photo 9.1: Employment oriented training for women in Bageshwar

Under this Scheme, the subsidy element of the Credit cum Subsidy Scheme are shared on 75:25 basis between the Centre and the States. The criteria of allocation of funds to the States are both poverty ratio as determined by the Planning Commission and the housing shortage in the District. The proportion of two variables is in the ratio of 50:50. The upper limit of construction loan ceiling of subsidy that can be given under this Scheme is Rs.40,000/- per household.

The status of credit cum subsidy rural housing scheme in Bageshwar District is given at Table 9.12.

Table 9.12
Credit-cum-Subsidy Rural Housing scheme
(Rs. in Lakh)

Year	No. of Households	Cost
2007-08	136	68.00
2008-09	20	10.00

Source: Project Director, DRDA, Bageshwar

During 2008-09 a sum of Rs. 4.53 crore were allocated under different programmes in Bageshwar district. The status of allocation and release of funds under different Schemes during 2008-09 is given at table 9.13 and 9.14 respectively.

Table 9.13
Status of allocation of fund under different schemes
(Rs. in lakhs)

NREGA	RH	SGSY	DRDA	Total
293.20	63.50	79.78	16.45	452.94

Source:-Department of Rural Development

Table 9.14
Status of fund release under IWDP
(Rs. in lakhs)

IWDP	Total
217.83	217.83
82.06	82.06

Source:-Department of Land Resources

The Strength, Weakness, Opportunity and Threat (SWOT) analysis is a useful tool for understanding the situation and decision making. It helps to provide a framework for reviewing strategy, status and goals of the organization for development in an area. SWOT analysis provides a framework by which SWOT issues can be developed in action and managed by using teams. It can be explained as follows:

- **Strengths:** attributes, those that are helpful to achieving the objectives.
- **Weaknesses:** attributes those that are harmful to achieving the objectives.
- **Opportunities:** *external* conditions those are helpful in achieving the objectives.
- **Threats:** *external* conditions which may damage the performance.

The SWOT analysis aims to identify the key internal and external factors that are important to achieve the objectives. Information used for SWOT analysis can be grouped into two main categories:

1. Internal factors – The internal *strengths* and *weaknesses*.
2. External factors – The *opportunities* and *threats* presented by the external environment.

The internal factors may incorporate strengths or weaknesses depending on their impact on the objectives. What may represent strengths with respect to one objective may be weaknesses for another objective. The external factors may include economic issues, technological change, legislation, and socio-cultural changes, as well as changes in the marketplace or competitive position.

10.1 Strengths of Bageshwar District

- Good WFPR in Bageshwar district. It has 46.61% of workforce which is much higher than state average.
- Female workers are substantial in number and proportion suitable for certain types of small scale industries predominant in the district like knitting of woolens, carpets, dari making, basket making and products made out of forest produce which may provide adequate strength for the development of the district
- Scope for increasing the area under cultivation by bringing more area under agriculture from wasteland and pasture (fallow) land particularly in Kapkot and Bageshwar blocks where irrigation facilities are being provided.
- With more than 50% area in the district covered under forests. The forests based industries have good scope for the development of the district.
- District has ample potentiality for tourism development.
- Agro-climatic conditions are suitable for development of horticulture and floriculture.

10.2 Weaknesses of Bageshwar District

- Low Level of urbanization having only one urban settlement.
- Bageshwar is one of the backward districts in the State with sparse population and slow growth rate.
- Lack of infrastructure in close vicinity, poor transport linkages, harsh climate in certain areas, etc.
- Higher sex ratio i.e. 1105 females per 1000 males may create social and economic problems.
- The district has 28% of the total population below the poverty line.
- Limited agricultural land for cultivation. Allied agricultural activities such as, pisciculture and farming are not developed to supplement the income of farmers.

- Widely scattered settlements pose problem for providing linkages and infrastructure.
- Lack of transport facilities to reach educational institutions, medical facilities and market.

10.3 Opportunities in Bageshwar District

- Hydro-electric generation, electronic and information technology, industries connected with pharmaceutical and medicinal plants, forest fruit farming, village industries connected with local crafts, tourism and pilgrimage, film industry, educational and research institutions have good slope for development based on the opportunities available in and around Bageshwar district.
- Large tracts of forest land provide good opportunities for development of forest based industries and for sustainable development of the region.
- Forest produce such as bamboo, timber, firewood and leaves for preparing leaf plates and other medicinal plants are found in large quantity in the district. These can provide large-scale employment to villagers.
- Horticulture has improved the socio-economic conditions and opportunities for farmers in the District. Climatic conditions provide opportunities to develop horticulture as one of the lead sectors in the district. It can boost for supplementing the income of farmers and employment generation.
- Bageshwar being a small district, the effective implementation and monitoring of various development schemes and programmes could be ensured by implementing agencies.
- Animal husbandary can provide gainful employment and has potentials for supplementing income of the rural population.
- There are good opportunities and infrastructure available for sericulture development in the district.

- The resin tapping can be good source of income and the employment generation from Himalayan Chirpine forests in the district.
- Ringal (the higher altitude bamboo) found beyond a height of 2400 m in Coniferous, Oak and Rhodendron forests is a 'poor peoples' timber which can be cultivated and developed on scientific lines. Weaving is a good employment opportunity in weaving and making of baskets, containers, toys, mats, etc.
- Available diversity of medicinal herbs and the propagation of these plants have good potential in the area.
- Bageshwar District has the potential to develop medicinal aromatic plants. Central Institute of Medicinal Aromatic Plants (CIMAP) under its extension programme has covered 20 Ha of land in the district under geranium. The Institute focused on geranium, as 13 bio-villages and 600 farmer families are covered. Under pyrethrum 4 Ha and under rose 10 Ha of area has been covered in the entire district.

10.4 Threats of Bageshwar District

- Agriculture is not sustainable in the district. Most of the land holdings are marginal and small and as such scope for commercial agriculture is limited.
- This erratic pattern of rainfall and lack of irrigation in the District.
- The farmers having fields close to township in valleys find that selling their land for house/ building construction is more productive. Land is shrinking because of the low returns from the agriculture.
- Facility for processing of fruit is inadequate in the district.
- Bageshwar district is having the problems of transport facilities to the mandis, lack of adequate cold storage facilities for cash crops like potato and absence of markets and value addition facilities in the district.
- Prevalence of common diseases in cattle like callbe buffaloes, black gnarter, hemorrhage, septicemia, foot & mouth disease, rinder pest, enterotoxaemia and fowl pox diseases in poultry.
- Poor and uneven distribution of medical facilities in the district.

- Non-existence of higher level educational institutions in the district.
- Limited availability of flat land feasible for the construction of buildings.
- This district falls in the seismic zone V and is prone to earthquakes.

10.5 Potentials of Development in Garud Baijnath Block

- Lot of flat lands are available compared to other blocks.
- Road network system is better than in other blocks.
- It has better accessibility.
- It has good tourism potential.

Kausani

At the hill resort of Kausani, the mountains rise so dramatically as if to reach the heavens. In fact not just Kausani, the entire Kumaon Hills are known for their idyllic beauty with the huge mountains silhouetted against the sky. Kausani was originally called Valna. Kausani offers the magic of the deep pine forests and the majestic mountains. Kausani the birthplace of the famed Hindi poet Sumitra Nandan Pant and is often referred to as the 'Switzerland of India'.

The major attraction at Kausani is that it offers beautiful vistas of the Kumaon Himalayas and one can enjoy the endless stretch of famous peaks like the Nanda Devi, Trishul, and the Nandakot. It offers excellent sightings of the Trisul (7,120m), Nanda Devi (7,816m) and the Panchchuli (6,904m). One can move to various vantage-points in order to capture the spectacular sights of the snow-capped peaks of the Himalayas that are spread majestically across the 300 km range. The sunrise and the sunset are the special moments for the nature lovers and the photographers alike.

Anashakti Ashram

The Anashakti Ashram, a landmark of Kausani is renowned for its association with Mahatma Gandhi, the Father of the Nation. One can gaze at some scintillating spectacles of the Himalayan peaks from the Anashakti Ashram. The magnificent library of the Ashram is worth visiting too. It is a place where Gandhiji spent 12 days in 1929 and it is set against the

brehtaking beauty of the Himalayas. He was so enamoured with Kausani that he called it the Switzerland of India and penned down his thoughts in his book titled Anashakti Yoga. The guest house of a tea estate where he stayed is converted as Ashram and it is called as Anashakti Ashram. It offers a good resting place for travelers and it can accommodate 300 people. Every evening, prayer is conducted in the main hall. It also has a library.

Pant Museum

The famous poet of Hindi literature, Sumitranandan Pant was born at Kausani. The poet's house of his childhood days is converted into a museum and named after him. His daily use articles, drafts of his poems, letters, his awards etc. are displayed here.

Lakshmi Ashram

It is 1 km away from the Anashakti Ashram. This place is a center run by women who do social service. Gandhiji's disciple, Sarla Behen spent her life here doing social service. This Ashram is located in a solitary area in a dense jungle.

- There are many tourist resorts in the block. Tourist stay there and view the beauty of Himalayas covered with snow.
- Sizeable area is under tea plantation in the block and there is one tea factory which manufactures tea powder.
- There is one shawl industry in the block.

Kapkot

- The block is characterized with rough terrain and steep slopes and as such flat land for building is limited. The road accessibility to village is poor.
- About 70% of rural population inhabits this block.

11.0 The development strategy of Bageshwar District aims to promote sustainable growth with social justice in consonance with the goals of regional development planning. Accordingly, development of Bageshwar District has been suggested within the overall frame of development of Kumaon region where the district is located. Development strategy is based on following premises.

- i. The economic growth of the District and its role in the process of regional development.
- ii. Improvement of quality of life particularly, the poor and the deprived classes in the district.
- iii. Minimization of the adverse environmental impacts that may occur in the process of economic development.
- iv. Improvement of existing development and adoption of the innovative methods of resource mobilization
- v. Attraction of private investments in the district, effective people participation and other community organisations through participative programmes and processes under Panchayati Raj Institutions.

11.1 Development Strategies

The development strategy aims to promote growth and balanced development of the entire region by strengthening the economic base in the identified major settlements (Regional Centres/Sub centres) for absorbing economic development impulse, connecting settlements with efficient transport network, development of physical and social infrastructure, rationalization of land use pattern and improvement of environment and quality of life in the district. Therefore, three basic strategies are considered for the development of Bageshwar district. These are broadly outlined as below:

11.1.1 Dispersal of settlements (Strategy One)

Under the dispersal of settlement strategy, following issues need to be considered:

- i. In order to open up new areas of employment opportunities and to provide higher order facilities there is need to encourage major industries such as Power stations including hydro-electric power generation and mineral based industries *viz* limestone, soap stone and resource based industries throughout the region.
- ii. The smaller scale business and industries including tourism in rural settlements and settlements of lower order throughout the region should be encouraged. The improved communication and accessibility to the sites may be necessary to achieve this. This would reduce immigration to the urban areas and strengthen the rural economy.
- iii. Priority should be given to smaller settlements, as far as provision of Government spending on services and infrastructure is concerned.

11.1.2 Concentration of Settlements (Strategy Two)

- i. The strategy should be adopted to locate the new industries within the urban areas in close proximity to infrastructure and services.
- ii. The strategy should encourage new business and industry in the rural areas and development of the potential market linkages with the industries. The forward and backward linkages should be developed in selected rural centres.
- iii. Major portion of budgetary and non-budgetary resources should be earmarked for infrastructure and services to ensure economic growth and linkages with markets.

11.1.3 A Combination of strategies one and two (Strategy Three)

A hierarchy of settlements or centers can provide a framework for the distribution of development activities in the region. The single development strategy or mix of two or more may be adopted for balanced regional development with emphasis on lead sector development. A proposed hierarchy is identified to provide a basis for future decisions on distribution and growth, which can be adjusted to support the selected economic and environmental strategies.

The focus is given on the following thrust areas while formulating the development strategies for Bageshwar district.

- i. Proactive role of State Government agencies and Panchayat Raj Institutions.
- ii. Wide range of fiscal and non-fiscal incentives be considered to sustain the development works.
- iii. Sound connectivity and continual development of good transportation infrastructure.
- iv. Creation of wide-spread opportunities in sectors like floriculture and horticulture.
- v. Development of agro-based industries and medicinal herbs.
- vi. Scientific extraction of rich mineral deposits of limestone, soapstone and magnesite among other minerals by providing opportunities in the mining sector.
- vii. Focus on quality education including the technical and vocational education etc.
- viii. Harvesting the vast water resources and exploiting huge potential for hydro-electric power generation.
- ix. Development of unmatched tourism potentials for leisure, adventure and pilgrimage.
- x. Establishment of industrial estates and provision of conducive industrial environment.

11.2 Efficient Panchayati Raj System

Bageshwar District is located in a remote area in the foothills of Himalayas. If the District fails to implement 73rd and 74th Constitutional Amendments in letter and spirit, it may not meet the aspirations of the people of the area. Policies in the right direction will not only fulfill local aspirations but also will set a good example to be emulated in other parts of the country. The only way to ensure development in the area is the idea of 'collective right to development'. The Uttarakhand State has therefore adopted the model of self governance in which 60 percent of the state budget is proposed to be taken out of the control of bureaucracy and transferred to rural and urban local self bodies.

Women are equal shareholders in economic development of Uttarakhand, especially the Bageshwar district. Their life in the region is hard and difficult and needs to be totally transformed in order to have gainful participation of women in the development process.

While prioritizing the development works, it should be ensured that every village is provided with basic necessities, drinking water, health facilities, educational facilities and electricity. Forests have traditionally been regarded as the wealth of local society in the District and were managed by the rural people. These have to be returned to the village Panchayats. The village Panchayats may be able to manage the forest resources in a better way.

Hydro-electric power generation, electronic and information technology, industries connected with pharmaceutical and medicinal plants, forest fruit farming, village industries connected with local crafts, tourism and pilgrimage, film industry, educational and research institutions are some of the areas in the District which need to be developed on sound footing for sustainable

development of the region. Healthy competition in market economy depending on industries that use local products will be a precondition of development.

11.2.1 Forest Rights Act

The Scheduled Tribes (Recognition of Forest Rights) Act, 2006 is a key legislation in India which aims to provide Adivasis rights to forest resources that are so intimately linked with. It has also been called the "Forest Rights Act", the "Tribal Rights Act", the "Tribal Bill", and the "Tribal Land Act." The law concerns the rights of forest-dwelling communities to land and other resources, denied to them over decades as a result of the continuance of colonial forest laws in India.

In this period, the lands they had been dwelling on were declared "forest land" or "protected areas" for wildlife. The traditional conservation ethos and dependence of tribal societies on forest land were overlooked. The Act aims to reverse the alienation of tribes from their own habitat caused by past policies and laws. The Act places considerable authority in the hands of Gram Panchayats. This includes the primary function of recognising forest rights, regulating access to forest resources, and punishing those who violate the provisions of the Act. A State Committee is to monitor the implementation of the Act. This committee includes forest and revenue officials and civil society representatives.

As many as 12,000 Van Panchayats which share over 10 per cent of the State's total geographical area are working with 'zero budget'. More importantly these are socially and economically linked with the people in the hills playing a crucial role in the economy and development of the State.

Keeping in view the dependence of villagers in the hills on Van Panchayats for their daily needs like fuel wood, fodder for cattle and timber wood, the State Government has created a separate department, Office of the Principal Chief Forest Conservator (Van Panchayat). But surprisingly, the office of PCC (Van Panchayat) remains virtually defunct in terms of requisite

funds and basic infrastructure. The Government of India has received credit from the International Development Association (IDA) and a grant from the Global Environment Facility (GEF) towards the design and implementation of a new project titled the Biodiversity Conservation and Rural Livelihood Improvements Project (BCRLIP), which is implemented by the Ministry of Environment and Forests (MoEF), India. The Van Panchayats in Bageshwar district should take up the projects earnestly.

11.3 Economic Profile

The District is essentially driven by the tertiary sector. Tourism can be one of the key sectors with a major contribution to the economy of this area in the future. Economy of the district will be governed mainly by the primary sector which includes agriculture, forestry, mining and quarrying activities.

11.4 Floriculture and Horticulture

Agro-geo climatic zone in the District provide conducive environment particularly for development of horticulture and floriculture on commercial scale. Floriculture is being developed extensively in order to meet the demand of the domestic as well as the foreign markets. The climate of the district is ideal for growing flowers throughout the year. Hence, it is proposed to establish floriculture parks in the district with common infrastructure for sorting, pre-cooling, cold chain, processing, grading, packing and marketing facilities. Horticulture is also being promoted through adequate incentives and facilities to the industry.

11.5 Agro and Food Processing Industries

The State Government provides assistance in establishing small and medium size agro parks, food parks etc., which in turn are expected to provide common infrastructure facilities for storage, processing, grading and marketing in the Bageshwar District.

Agro Export Zones (AEZs) in the District can be identified under the AEZ scheme of Government of India for leechi, horticulture, herbs, medicinal plants, etc. Uttarakhand has been included in difficult area category by the Ministry of Food Processing Industry (M/o FPI) and hence units being set up in the district will be eligible for higher incentives under the scheme of M/o FPI. The State Government is also providing matching subsidy for projects under various schemes of Agricultural and Processed Food Products Export Development Authority (APEDA), National Horticulture Board (NHB), M/o FPI and the Natural Medicinal Plant Board (NMPB) subject to a maximum limit of Rs. 20 lakh. Therefore, these subsidies can be utilized for establishing Agro and food processing industries.

11.6 Biotechnology

Biotechnology is poised to make significant contributions in agriculture, human and animal health care, environmental management and process industries. Rare species of plants and animals found in the forests of the district, add to its natural advantage. The proposed strategy of the State with respect to the biotechnology sector is:

- i. Units coming up in this sector, including the R&D units, should be accorded industry status and the provisions made for the IT sector shall be made applicable to this sector as well.
- ii. Establishing an internationally competitive business infrastructure and environment for biotechnology industry in the district.
- iii. Developing the district as a centre of excellence in biotechnology by providing necessary education and training facilities for the creation of a large pool of multi-skilled, technically competent manpower and organizations for state-of-art biotechnology research.
- iv. Biotechnology needs to be developed in the district to achieve the vision and integrate resources and provide amongst others, a focused

institutional set up for accelerated commercial growth of Biotechnology and Bio-Informatics.

11.7 Agriculture

Popularization of scientific and improved methods of vegetable cultivation and their seed production is of utmost importance with reference to specific agro-climatic conditions and unexplored areas in hilly regions, which permit production of a wide variety of good quality vegetables. It is important to popularize scientifically developed methods of vegetable cultivation practices for the improvement of agro-socio-economic conditions of the people. The necessary research and development programs should be carried out in the hilly region itself. Greenhouse technology for production of vegetables has been found to be an appropriate intervention in the development of horticulture in the difficult terrains. There is a large untapped potential in the hilly terrain, which would bring nutritional self-sufficiency besides enhancing the income of people and providing on-farm employment.

Due to the altitude and climatic regimen of the area, it has been felt that diversification from traditional grain-based farming into vegetables, fruits, flowers, and medicinal plants may be the remedy for improving the economic condition of the people. It is also equally important to establish direct marketing linkages. Diverse climatic condition in the District provide great potential for temperate as well as tropical fruits and off-season vegetable. Valley regions with perennial rivers like Saryu, Gomti and East Ramganga have scope for floriculture but surface water from these rivers may be lifted to harness the potentials by way of small pumps. Farmers are engaged in traditional agricultural practices; therefore shifting to horticulture would be easy for them. The horticulture activities in the District are beneficial and suitable for providing wage-based employment to the rural poor and also making availability of raw material to the processing industries.

Food grains and food crops cover a large percentage of gross cropped area in the district. More than 8% of the area is under cereals and approximately 2% of the cultivated area is under oil seeds and other crops. Rice is grown in Bageshwar and Garud Baijnath blocks where irrigation facilities are available by the side of Gomti and Saryu Rivers. Soils in these blocks are fertile and it is well drained by Saryu river. Wheat is grown in almost all the three blocks, which is evident from the percentage of area in total sown area under cereals. This crop is also grown in rainfed area at high altitude. Maize and barley are two cereal crops, and are grown at high altitude of Kapkot block with less irrigation facilities and less fertile land. Pulses and oil seeds crops are grown again at high altitude lands in Kapkot block. Farmers of the District are growing only cereals which are not sustainable for the whole year. This compels the local residents to migrate in search of job. Due to predominance of smallholdings in the district, farmers have very low purchasing power and are hardly left with any finance for adopting modern methods of farming or switching over to other cash crop farming. Due to hilly terrain it is very deficient in agriculture marketing facilities. Inadequate irrigation facilities lead to severe fluctuations in agriculture production. The storage facilities for the farmers in the villages as well as in the market are inadequate. The district lacks the facility of Local Mandies (markets) for sale of produce.

The limited extent of cultivable land itself is a restricting factor for the development of agriculture. The farmers in hilly areas are today no longer able to sustain. Reduction in the density of forest cover and overgrazing has led to soil erosion of unprecedented proportions. Land and water resources are becoming scarce. Nearly 88% of the area is either covered by forests or is barren and uncultivable. The land is low in fertility except in the valleys. Shorter agricultural season, low temperature, high altitude, small size of land holdings, perpetual problem of soil erosion due to steep gradients etc. are

other inhibiting factors affecting agriculture. Agriculture, therefore, does not offer too much hope for bringing about well being to the people of the area.

11.7.1 Potato

Although potato is a cash crop, farmers are not getting their due return from this crop because of lack of transport facilities to the Mandies and lack of adequate cold storage facility. The small land holdings of the farmers is main hindrance in encouraging farmers in growing this crop. Although Kapkot block is a rugged hilly block with sparse irrigation facilities but nature have provided fertile land to grow potatoes in a big way. Kapkot block has got the highest dependency on potato. However, the Government has to provide training to the farmers and making arrangements for transport and storage facilities in the far flung areas of this block. Good variety of potato seed and fertilizer should be provided to the farmers at subsidized rates, soft bank loans should be given to the farmers.

11.8 Horticulture

Facility for processing of fruit is inadequate, as there is only one processing center at District Headquarter owned by the Department. Due to the poor status of processing a large amount of the fruits are disposed of in the District which results in economic loss to the farmers and as such they are not keen to take up horticulture practices. The District is rich in the production of pear, citrus and mango, but the value addition is too poor that farmers don't get good price for their produce. Due to this reason the farmers have to sell their produce as soon as they are harvested on minimal price.

Therefore, horticulture is not encouraged by the farmers. Establishment of canning centers at Sharma for citrus and at Garud for pear may yield fruitful results. To create more opportunities for employment in the rural sector Government should concentrate on transport, storage and marketing facilities for the small and marginal farmers.

The potential of horticulture sector has not been realized due to the lack of budgetary support, inadequate infrastructure in transport, marketing and processing facilities. Even though an area about 10247 Ha is reported under horticulture, yet nearly two thirds of the plantations are in need of rejuvenation. The apathy on part of the farmers is marked due to the absence of market. Most of the existing orchards are in high stages of degradation and no efforts are being made by the farmers to restore them. Another important aspect to be emphasized is the distance from the main road, which also makes the prices obtained for the product non-remunerative for the farmers. The agriculture/horticulture in the hills is women centric but they remain indifferent to the latest development facts and modern trends. Unavailability of standard/modern farm implements and maintenance services also add to the woes.

The only solution to overcome this situation is to popularize scientifically developed methods of vegetable cultivation practices for the improvement of socio-economic conditions of the people. Necessary research and development programs should be carried out in the hilly region itself, this way the outcome of such work will be best suited to the agro-climatic condition of the region. Greenhouse technology for production of vegetables has been found to be an appropriate intervention in the development of horticulture in these difficult terrain. Even though the present area under greenhouse in our country may be less, there is a large untapped potential in hilly terrain, which would bring nutritional self-sufficiency besides enhancing the income of people and providing on-farm employment. The compact area approach has to be adopted in the implementation of newly technologies.

11.9 Floriculture

Apart from traditional cereal cultivation in the district, floriculture has tremendous scope to provide additional income to the farmers. Kapkot block having moderate climate is suitable for floriculture to a great extent. State

Government has been making efforts for the encouragement of the floriculture in Kapkot under a Government of India programme by providing assistance to farmers in different villages. The major floriculture crop cultivated in the district is marigold, which is cultivated in an area of 3.5 ha with a production of 1.75 MT per annum.

The District is characterized by extremely small and fragmented land holdings. Disorganized markets for local produce of fruits, flowers, and vegetables causes exploitation of farmers and optimum return for their produce is not assured. Lack of infrastructure in the region has caused steady outflow of local population to the plains in search of a better living. Existing orchards and cultivable fields are degraded. Horticulture is under developed due to the lack of extension and advisory services in the district. Dependence of agriculture on rainwater (90%) has resulted in low use of chemical fertilizers (8.0 kg/ha) with low yielding varieties being grown in traditional way. Absence of quality seeds, saplings, bulbs of ornamental plants, lack of food processing facilities needs to be strengthened, especially considering that the only processing center is in Government sector. The highly undulating topography has led to exploitation of ground water resources in large scale. The percentage of irrigated area to the gross cropped area is only around 10% in the district. This calls for immediate attention because much damage is caused annually to irrigation structures in the region due to landslides, which are a recurring feature.

11.10 Forest Products

11.10.1 Medical and Aromatic Plants

The region has a good diversity of medicinal herbs. The propagation of these plants has huge potential in the area. Some measures of marketing i.e. buy-back mechanism are to be suggested so that growers can take good advantage of their crops. CIMAP under its extension programme has covered 20 Ha of land in the District under geranium.

11.10.2 Herbs and Spices

Since a significant part of the District is under the forests cover (about 50 percent), there exists excellent potential for the development of forest resource based industries. In addition, there is ample scope to develop industries based on forests and agro wastes such as lantana, pine needles and plants and vegetative fibers. The District is also a storehouse for a rich variety of herbs, medicinal and aromatic plant species. With a view to utilize these resources, a medicinal and aromatic plants export zone has been set up and specialized herbal parks are in the offing.

11.10.3 Tea

Kausani in Bageshwar district has emerged as the only area outside the traditional tea growing areas to produce Organic Orthodox Tea. It is proposed to bring in additional acreage under tea plantation over the next few years.

11.10.4 Bamboo and Fibre Developments

State Government has established a Bamboo and Fibre Development Board to develop this sector. There is lot of potential in the forest area of the District to develop bamboo and fibre cultivation in future.

11.10.5 Sericulture

Sericulture sector has the prospects of emerging as a major sector in the years to come. Muga cocoon produced in the District is comparable to the best quality available in India.

11.11 Fisheries

The large water resources in the District offer the possibility of developing fisheries on commercial scale. The Fisheries Policy of the state declared in 2002, is aimed integrated development of fisheries and use of scientific techniques.

11.12 Handloom

Handloom sector of Uttarakhand has got the distinction of being a pioneer industry and comes only next to agriculture with regard to employment and rural development. The handloom sector offers employment opportunities at lesser investment. It is spread over remote rural and semi-urban areas and benefits mainly the people belonging to SC/ST and minority community. This sector has vast export potential also. In this context there is a need to develop the handloom sector in the State on modern techniques and design etc. Till now the State Government had laid emphasis on providing the necessary infrastructure through the public sector.

11.13 Tourism sector

Till now the State Government had laid emphasis on providing the necessary infrastructure through the public sector. However, with the fast changing economic scenario, there is now a need, to involve the private sector in development of tourism infrastructure and adopt an approach that will ensure best possible utilization of resources of the State in long run.

11.14 Irrigation

The existing guidelines relating to eligibility of Schemes to be included under the program does not suit the situation on the ground, particularly with respect to the size of command area, and development cost per Ha. There are no provisions to benefit private sector irrigation, which is the dominant mode of irrigation both in hills and plains. There is no holistic, integrated natural resources management approach in the District or in the Uttarakhand where there are significant levels of degradation of natural resources, which threaten water availability. There is a lack of participatory approach, as the guidelines do not mandate this. The guidelines for monitoring and evaluation of the Scheme are entirely inadequate.

The Accelerated Irrigation Benefits Programme (AIBP) is further weakened by the lack of an irrigation policy in the State/District. Therefore, the

district should be allowed to develop its own operational guidelines for AIBP, with some broad principles laid down as per Central Guidelines. Enactment of an appropriate policy for the irrigation sector as a whole in the State with reference to the District should be made. Integrated approach to agriculture and irrigation needs to be adopted. Environmental sustainability through integrated resource management approach should be taken up. A major segment of AIBP should be utilized for developing and conserving water and land resources through a watershed approach. Program objectives and strategies should be laid down for AIBP and for the irrigation and agriculture sector independently for the hill and terai regions. The AIBP should include a component for establishing a Management Information System (MIS). The data base on irrigation sector should be comprehensive, including all relevant parameters. Irrigation planning should be linked to achieve food security, with a district based approach. Promotion of appropriate institutional frameworks for participatory irrigation management in state systems including PRIs can be done. A comprehensive review of the impact of other sectoral development on irrigation resources and appropriate compensatory policies and strategies should be adopted to protect such resources.

11.15 Angora Wool Spinning Industries in Bageshwar

Angora rabbit breeding and rearing has emerged as an important income generating enterprise in the hilly regions of India in the last 25 years. This livestock system has been viewed to provide a sustainable source of income under small or zero agriculture land holding. The agro-climatic conditions of the hilly regions between 4000 to 7000 feet above mean sea level in Uttarakhand are viewed as potential areas for such an enterprise. Keeping in view the importance of angora wool fibre and its potentials for income and employment generation, there is need to increase production of the angora wool by making angora rabbit breeding and rearing a popular occupation.

High profitability, vast potential of income and employment generation, huge potential for earning foreign exchange and role of angora rabbit husbandry in ecological rehabilitation are few of the many positive factors, which call for coordinated efforts, so that the farmers take up angora rabbit breeding and rearing. The people of the villages have understood the favorable economics and livelihood potential of Angora rabbit farming. The women and educated unemployed youths can take up this profession and traditional farmers can supplement their income through this.

11.16 Strategies

- i. Research & Development in the field of health care and nutrition.
- ii. Establishment of high yielding angora rabbit germplasm resource center.
- iii. Training and technical support to angora rabbit breeders, self- help groups (SHGs), extension workers and NGOs.
- iv. Establishment of feed manufacturing unit for concentrate and quality feed production for angora rabbits.
- v. Extension and distribution of angora rabbit units to farmers.
- vi. Establishment of common facility center for carding, blending, spinning, weaving, knitting and processing of raw angora wool in to yarn and hand made finished products.
- vii. Production and marketing programme for raw angora wool, angora wool blended yarn and hand made angora woolen products.
- viii. Design development and product diversification.
- ix. Technological upgradation in traditional machineries and equipment.
- x. Research & Development in vegetable and natural dyes.
- xi. Co-ordination between the Government Departments, Research Institutions, NGOs, Designing Institutes, Marketing Organizations and SHGs, beneficiaries, etc.

11.17 Physical Infrastructure

11.17.1 Airways

Positioning air-transport as a reliable all-weather transport option in hilly terrain like Bageshwar district is essential for fast communication. Government has allocated funds for the construction of at least one helipad per district in the state of Uttarakhand which can facilitate helicopter services in the hilly state especially Bageshwar district.

11.17.2 Roads

Public Works Department of the State has planned several Build–Operate– Transfer projects under Public Private Partnerships. Expenditure incurred on road transport in every financial year is higher than the previous year's expenditure.

11.17.3 Power

The District has huge hydro-electric power generation potential. As a whole, Uttarakhand intends to increase its capacity to 5,000 MW of hydro-electric power by 2011-12. The District can also simultaneously support alternate sources of power generation like solar water heaters, biogas-bracketing plants and wind based plants.

11.17.4 Renewable Energy

Energy is one of the prime requirements for socio-economic development and transformation of rural areas in the country. For a State like Uttarakhand which is predominantly hilly, it is a challenging task to adopt this technology.

Electrification of disparate rural areas in adverse conditions in the Bageshwar district including forest areas requires a deviation from the conventional pattern which is adopted in the plain regions. Grid connectivity is prohibitive due to the high cost of construction involved. Further, operation and maintenance of the grid is difficult. Therefore, Decentralised Distributed

Generation (DDG) in the form of Micro Hydel Projects (MHPs) are suitable and the best way to meet the electricity needs of rural villages. The maintenance of the system can be well managed by the local community itself after training.

Bageshwar District is endowed with rich hydrology and its rivers, streams and springs which offer hydro-electric power potential. Especially for rural communities located in high altitude, MHP will be the stable, economical reliable and renewable source of energy. They are environmentally sustainable and claimed as green and clean energy mechanisms.

11.17.5 Micro Hydropower System

A micro hydro system is water-driven electricity generation and provides electricity to the villages and hamlets for various applications.

11.17.6 Water supply

Development Strategy should focus on ensuring uninterrupted supply of potable water throughout the State. Traditional methods of water harvesting like nauley, dharey, chal and khal can be encouraged for rural water supply. More investments / Schemes can be identified for the improvement of water supply systems.

11.17.7 Sanitation

Development strategies can be adopted by the Administration for the development of total sanitation systems for villages. Efforts should be made to develop the waste-disposal system under "Total Sanitation" campaign. Partial sewer arrangements have been provided in all bigger settlement in the District. Individual Toilet construction, Compost Pits, Construction of Soakpits and Garbage Pits can be made in the villages.

11.18 Social Infrastructure

11.18.1 Health

The District needs a good network of hospitals and health centres. Strategies can be adopted for sound population policy to improve the quality of life of its people by focusing on developing effective health infrastructure.

11.19 Industrial Infrastructure

The tendency to transform an essentially agrarian area into a hub of industrial activity is on the way for the growth of economy. The District should adopt the following strategies for the upliftment of infrastructures.

- * Integrated Industrial Estates (IIEs) like Haridwar,
- * Pharma City
- * Information Technology Park like Dehradun.
- * Growth Centers.

Private/Joint/Co-operative sector industrial sectors in PPP mode can be developed. Provision of broadband connectivity for all industries in the State and strengthening of single window–contact, information and facilitation mechanism can be adopted in the district.

Financial incentives for the proposed integrated industrial estates can be suggested as follows for the improvement of industrial infrastructures in the state.

- i. 100% Central Excise exemption for 10 years
- ii. 100% Income Tax exemption for first 5 years and 30 % for next 5 years
- iii. CST @1% for 5 years
- iv. Capital Investment Subsidy @15%

11.20 Tourism industry

Steps can be taken in order to place Bageshwar on the tourism map of the world as one of the leading tourist destinations by developing the manifold tourism related resources of the area in an eco-friendly manner with the active participation of the private sector and the local host communities. Tourism can be developed as a major source of employment and income/revenue generation and as a pivot of the economic and social development in the district.

Investment opportunities that exist in the tourism sector include eco-tourism hotels, resorts, amusement parks and ropeways which need to be explored. Winter sports can be developed at places which have the requisite terrain for the purpose of adventure tourism.

11.21 Information Technology

The use of Information Technology can be encouraged not only as a tool for management and decision support systems but also to re-engineer the processes of the Government to provide a more efficient, transparent, accountable and responsive system to the citizens. Upgradation of quality of life of citizens by facilitating easy access to consumer applications of Information Technology is needed to be focused on. Encouragement of private sector initiatives for the development of world class Information Technology infrastructure is required.

Upgradation and development of manpower skills is required for the IT industry and to accelerate the use of IT in schools, colleges and other educational institutions with a view to provide skills and knowledge to the youth so as to render them fit for employment in this industry. Use of IT as a GDP driver by promoting IT industry, developing the state as an attractive IT destination with a view to generate employment for youth in this sector and raising their earning capacity and simultaneously realizing the export as well as domestic revenue potential in this sector are of paramount importance.

12.1 A spatial framework of district planning is essential to provide locational guidance to the various programmes and schemes taken up for development. As mentioned in the objectives, the spatial plan aims not only to provide location plan for the development programmes and schemes but also to develop rural-urban integration and reduce disparity in development over the space. The spatial strategy provides two broad directions, the first is on hierarchy of urban and rural settlements in the region and the second is regarding the proposed functions of the settlements. In simple terms, it is the size and function of settlements along with their linkages that are described in the strategy on which detailed planning and programming are to be taken up in the subsequent stages. The nodality of the region particularly focused on Bageshwar town plays an important role in attracting urban-industrial activities to this region. For future development of the District, it is envisaged that both transport and communication is required to be strengthened and developed keeping with the requirements of the proposed settlement hierarchy.

12.2 Settlement Analysis

The settlement analysis has been done for the rural villages in the District keeping in view the existing facilities such as education (availability of primary schools, middle schools, secondary schools, Sr. secondary schools and training centres), health facilities (availability of Ayurvedic hospitals, Homoeopathic dispensary, Allopathic dispensary, Primary Health centres, Primary health sub-centres and Child welfare centre), Telecommunication facilities (post office, Post and telegraph offices), bank facilities and commercial bank facilities.

12.3 Determination of functional hierarchy

In the proposed settlement systems, five levels as identified in the district are given below.

1. Regional Centre,

2. Sub-Regional Centre,
3. Rural Market Centre,
4. Rural Service Centre,
5. Basic Villages.

The existing number of growth centres as identified are not sufficient to meet the present requirement of the district in terms of provision of services. Moreover, they are not uniformly distributed across the blocks. Therefore, it is necessary to review the settlement pattern by identifying and designating new growth centres which will not only meet the requirements of present population but also the future population which is estimated to grow at the rate of 0.84 per cent annually during 2011-21. In identifying new centres, it has been aimed at selecting the settlements that are likely to evolve naturally due to its location and potentialities.

The factors taken into consideration to assess the potentials while selecting new centers of both rural and urban areas are given below:

12.3.1 Urban

- i. Population size and growth rate.
- ii. Spatial location.
- iii. Economic and industrial potential.
- iv. Social and cultural factors.
- v. Administrative factors.

12.3.2 Rural

i. Importance of the settlement

The services that particularly mark the importance of a settlement are the higher order health facilities, secondary education and accessibility.

ii. Influence of surrounding settlements

The 2001 Census provides population for each village area and these can be grouped to suggest catchment population.

iii. Distance and pattern of distribution of centres

Ideally the number and distribution of centres should ensure that no population concentration is more than 5-10 km away from a centre to ensure accessibility to its services.

iv. **Communication accessibility**

Each centre should have easy access to its hinterland and other selected centres.

v. **The development potential**

The potential for increased agricultural production in each catchment area and the potential for business development in each centre are important considerations.

Based on the above factors and level of services available in the villages, the levels of hierarchy for each settlement have been worked out. Accordingly, certain settlements which have already fulfilled the criteria are functioning as growth centers. However, some settlements have to fulfill the gaps of existing provision of services to bring about balanced development in the district and also to meet the requirement of projected population additional growth centres have been identified. The proposed hierarchy of settlements and their details are shown in table 12.1.

12.3.3 Composite Score and Index of Development

The composite scores have been worked out for 836 villages in the district. The weightage have been assigned to different facilities such as Education (E) which includes the parameters viz. (Primary Schools, Middle schools, Secondary Schools, Sr. Secondary Schools, College, Training Schools and Adult Literacy Centre), Health (Hospital - Ayurvedic, Unani, Homeopathic, PHCs, Primary Health Sub-Centres, Child and Family Welfare Centres, etc.), Posts and telecom (Post Offices, Telegraph offices etc.), Financial Institutions (Banks, Credit Societies etc.) and administrative status of the villages. Out of 836 villages in the district, there are 58 such villages

Table 12.1
Proposed Settlement Hierarchy

Level	Details
I) Regional Centre	The Bageshwar district will continue to depend for the services like higher and technical education, health facilities, airport facilities, higher order of courts and administrative services available with Nainital, Dehradun, Pantnagar and Almora. As such keeping in view the growth pattern of Bageshwar town and its potentials in perspective year 2021, the town of Bageshwar will not be able to provide regional services to its people.
II) Sub-Regional Centre	Bageshwar, the district & Block Headquarter is the highest order settlement in the hierarchy and serve the entire district.
III) Rural Market Centres	Shama, Ason (Kapkot), Wajyula, Galai (Garud Baijnath), Khantoli and Anarsa (Bageshwar) villages have been identified as potentials to function as rural market centres.
IV) Rural Service Centres	Large villages having Cooperative Societies, Hospital facilities along with other higher level of institutional facilities such as Banks, Post offices, etc. have been selected. Twenty one such rural villages (Sl.No.7 to 27 of Table 12.5) are proposed to be upgraded.
V) Basic Villages	Medium size villages having at least one Middle School/ Primary School and Cooperative Societies with population of 500 and above persons are proposed to be included under basic villages. In total of 81 villages have been identified for upgradation (refer Sl.No.28 to 108 of Table 12.5). These centres would provide services like raw material support, skill up-gradation, training, Marketing promotion, etc. in order to strengthen the rural clusters.

which are devoid of any facility. The weightage score for rest 778 villages in the district have been worked out. Further, 108 villages having population of 500 and above have been finally selected to workout hierarchy of the settlements. The scores have been weighed on maximum 10 scales (Refer Annexure 12.1). Finally, the composite indices have been worked out for all the villages (Refer Annexure 12.2).

Analysis of Data

The weightage have been assigned by using following methods.

$$E = (e1+e2+e3+e4+e5+e6+e7)$$

Where E=Educational facilities

e1= Primary Schools

e2=Middle schools

e3=Secondary Schools

e4=Sr. Secondary Schools

e5=College

e6=Training Schools

e7=Adult Literacy Centre

The maximum weightage accorded to different parameters of educational facilities has been assigned 10. Further, the scores allotted to each parameter have been weighed to 10 scale earmarked for educational centre. Similarly, the scores have been assigned to different parameters of health facilities, post and telegraph facilities and financial institutions etc. and finally composite scores have been calculated for the villages having population of 500 and above. The composite weightage score ranges between 1.41 (lowest) to 6.35 (highest) for 108 villages. The groupings of villages have been made in four quartiles. The grouping is mentioned at Table 12.2.

12.4.0 Identification of Growth Centres

Designation of hierarchy of centers aims to assess the equitable and efficient provision of services and facilities. Even so, neither the hierarchy itself nor the proposed range of services and facilities for each level of hierarchy should be regarded as more than a guideline and subject to amendments in the light of local circumstances and rate of growth. Keeping in view the composite indices, following categories of growth centres have been identified (Refer Drawing No 12.1).

Table 12.2
Composite Index of villages

S.No		Composite Index Range	No of Villages
1	First Quartile	Above 5.25	6
2	Second Quartile	4.00 to 5.24	21
3	Third Quartile	1.41 to 3.99	81
4	Fourth Quartile	Below 1.41	728 (Less than 500 population)
	TOTAL		836

Source: The Statistical Method has been used based on Census of India Data 2001.

12.4.1 Regional Centre

Bageshwar district is dependent for higher order education, health and other facilities on the regional towns of Dehradun, Nainital and Pantnagar. Dehradun is the state capital and center of education, hospital facilities, airport, Railway service and court etc. Pantnagar is the centre of Agriculture University, airport and other facilities. Nainital is the nearest big town from Bageshwar, which holds the facilities of education, helipad and health facilities. Udham Singh Nagar district is another regional centre where agriculture produce and industrial activities are concentrated. Bageshwar District is devoid of these regional services. Kathgodam is the nearest railway station (190 Kms) and the nearest airport is Pantnagar (206 Kms), Almora (90 Kms), Nainital (137 Kms) offer services to Bageshwar town. Therefore, Bageshwar will continue to depend for the services like higher and technical education, health facilities, airport facilities, higher order of courts and administrative services available with the above regional centres.

12.4.2 Sub-Regional Centre

Bageshwar town being the district and block headquarter is already functioning as the sub-regional centre and will continue to do so. Important administrative offices such as Collectorate and other Govt. offices are located in the district Headquarter. It is also well linked and accessible by roads from all the three block headquarters. It is expected that this town will continue to attract more and more commercial activities due to availability of necessary infrastructure.

The development plan for the town is under preparation by the State Town and Country Planning Department. There is full fledged Divisional Town Planning office at Haldwani near Kathgodam which looks after development works of Bageshwar district. Due to non-enforcement of rules and regulations, haphazard, unplanned and irregular development has taken place in an around Bageshwar town. While developing such sub-regional centre, the focus should be given to strengthen the economic services of the town.

12.4.3 Rural Marketing Centres

Rural Marketing Centre promotes local resource based agriculture and its allied micro enterprise and it explores multi-option of livelihood opportunity for poor marginal community by providing better market linkage and direct and indirect value chain. Much emphasis is given on enhancing and expanding the local resource based agribusiness sector through collection and disseminating of agriculture and allied business marketing information, market research, planning and implementing of development programs such as Five Year Plan period for the promotion of product produced by rural community.

Technical support and business development services for the promotion of rural agriculture and agro-based enterprises are provided to men and women groups in the rural marketing centres. Developing strong market linkages is the most important area of intervention. The centre provides producers a platform to market their produce like food grains,

pulses, millets, fresh fruits and vegetables and processed items like jam, pickles, squash, candy, etc. at a good price without the help of the middlemen. The centre links the marginal community to such appropriate and adequate market channel, which reduce exploitation & generate open opportunity to all stakeholders for marketing their produce.

Lot of marketing federations and women cooperatives for collective marketing of the products in this centre can reduce the exploitation of farmers at the hands of middlemen. It can become operational by designing and developing marketing strategies, developing rural marketing information system, building credit and financial linkages from financial institutions like banks, designing sales channels for production and trading groups and by strengthening internal and external operational capacities of federations and cooperatives.

The service provisions and necessary infrastructure may be developed in accordance with the level of services required in the rural marketing centres as given below:

- Improvement and widening of roads
- Wholesale markets
- Shopping Centres
- Piped water supply
- Sanitation and Solid Waste Management.
- Preparation of Environmental Management Plan.

The rural marketing centres of Shama, Ason, Wajyula, Galai, Khantoli and Anarsa have a crucial role to play in the overall hierarchy of the settlements. They are designated to accommodate the future development activities and simultaneously provide necessary support to rural growth centre vis-à-vis rural hinterlands.

12.4.4 Rural Service Centres

Large villages having middle schools and other higher order facilities of Hospitals, etc. have been selected under this category. Each service centre

requires certain floating population to support its services. The road connectivity and availability of transport facilities become important factor to sustain the rural service centres.

12.4.5 Basic Villages

The aim of basic villages is to provide services like raw material support, capacity building, and quality control, testing facilities and marketing promotion in order to strengthen the rural clusters. Under this category, the villages having basic education facilities such as primary schools, etc have been chosen.

The equitable distribution of the growth centres, facilities provided and catchment population distribution at five levels are listed at table 12.3.

These lists are guidelines to be applied to the local circumstances in each planning area based on the shortfalls in existing provision and the potential future requirements. Many of the services centre facilities will also be required in other villages, e.g. primary schools. The purpose of this list is not to limit their development elsewhere, but to ensure the first priority is to provide the service or facility in the selected centres.

Table 12.3
Services in the proposed growth centres

Level	Facilities	Distance in Kms	Catchment Population
I Regional Centre	Airport, railway station, university, higher technical institutions, specialized hospitals, Courts, FCI Regional Godowns, etc.	200 – 250	Entire District
II Sub-Regional Centre	District Civil Hospital, Veterinary Hospital, Artificial Insemination Centre, Degree Colleges, District offices of the State, Nationalised and Cooperative Banks, Various Govt. & Semi Govt. Organisations, Agricultural Produce Market Principal Yard, General Post Office, Telegraphs, Higher Order Godowns, etc. Bus Depot and Workshop.	40-50	Entire Blocks
III Rural Market Centre	Senior Secondary schools, Allopathic dispensary, Metalled road links to urban centre, Public transport Services, Post Office, Electricity supply, Telephone service, Water supply, Banks, Cooperative society, Fair price shop, Regional markets, Community centre, Police post, Veterinary dispensary,	10-25	Group of Panchayats

	Artificial Insemination Centre, Middle Order Godowns APMC Sub-yards, Petrol station.		
IV Rural Service Centre	Pucca Road to market centres, WBM vehicular road links to villages in catchment areas, Electricity supply, Water supply, Fair price shops, Community centre, Post Office, Secondary Schools, P.H.Sub-Centre, Bus Station, Weekly Market, Bank (Branch), Artificial Insemination Centre, Z.P. Ayurvedic Dispensary, etc.	Upto 5	Group of Villages
V Basic Village	Primary and Middle Schools, Dispensary Branch Post Offices, Weekly Markets, Regular Bus Stop, Cooperative Banks, Veterinary Aid Centre etc.	Within 2	Entire Village

The list of existing and proposed growth centres at different levels is given in table 12.4.

Table 12.4
Proposed Growth Centres

Sl.No.	Block Name	Village Name	
	Bageshwar		
1	Anarsa	12	Kholi
2	Bamrari	13	Kunera
3	Bheru	14	Majiyakhet
4	Bijori Jhal	15	Mal Suna
5	Dhapti	16	Mandalsea
6	Harwar	17	Mankot
7	Jethai	18	Musoli Chak Josh
8	Jolkanda	19	Pandra Pali
9	Kande Kanyal	20	Pang Chora
10	Kathayatbara	21	Simkuna
11	Khantoli		
	Garud Baijnath		
22	Atartoli Pachami	41	Kulaun
23	Bhakunkhola	42	Lakhani
24	Bhatriya	43	Lamchula
25	Bhil Kot	44	Laubaj
26	Charson	45	Maigari State
27	Chhatiya	46	Maj Kot
28	Darshani	47	Matena
29	Dhyonai	48	Mela Dungri
30	Fulwari Gunth Ba	49	Munyura Mafi
31	Galai	50	Naughar
32	Gani Gaon	51	Paye
33	Garser	52	Pinglon
34	Gheti	53	Purara
35	Gwar Pajena	54	Silli
36	Hawil Kulwan	55	Simkhet
37	Jakhera	56	Sirkot
38	Jyuna State	57	Urkhuli
39	Kansyari	58	Wajyula
40	Kausani State		
	Kapkot		
59	Aithar	84	Kapkot
60	Ason	85	Karmi
61	Badiyakot	86	Kharkana Toli

62	Baghar	87	Lahur
63	Baisani	88	Lili
64	Bamsera	89	Liti
65	Baret	90	Mahruri
66	Bari Panyali	91	Majkhet
67	Beira Majhera	92	Malladesh
68	Bhanar	93	Nakuri
69	Bhayu Mai Hhurauni	94	Namti Chita Bagar
70	Chachai	95	Nankanyalikot
71	Chalkana	96	Pachar
72	Chaura	97	Pothing
73	Cheera Bagar	98	Purkuni
74	Dayali Kurauli	99	Ramari
75	Dhamigaon Kirai	100	Sama
76	Dulam	101	Simgari
77	Farsali Palli	102	Sorag
78	Farsali Walli	103	Suding
79	Gadera	104	Sumgarh
80	Gasi	105	Supi
81	Gogina	106	Toli
82	Jagthana	107	Udiyar
83	Jarti	108	Wachham

Table 12.5

List of identified villages for upgradation

Sl. No.	Name of Block	Name of village	Sl. No.	Name of Block	Name of village
1	Kapkot	Sama	16	Kapkot	Ramari
2	Garud -Baijnath	Wajyula	17	Kapkot	Kapkot
3	Kapkot	Ason	18	Kapkot	Lahur
4	Bageshwar	Khantoli	19	Kapkot	Baret
5	Bageshwar	Anarsa	20	Garud Baijnath	Fulwari Gunth Ba
6	Garud -Baijnath	Galai	21	Kapkot	Toli
7	Bageshwar	Kunera	22	Kapkot	Udiyar
8	Bageshwar	Kande Kanyal	23	Kapkot	Nankanyalikot
9	Bageshwar	Bamrari	24	Garud -Baijnath	Bijori Jhal
10	Bageshwar	Kholi	25	Kapkot	Kausani State
11	Kapkot	Dulam	26	Kapkot	Paye
12	Garud- Baijnath	Matena	27	Kapkot	Garser
13	Kapkot	Malladesh	28	Kapkot	Karmi
14	Kapkot	Sumgarh	29	Kapkot	Pothing
15	Bageshwar	Jethai	30	Kapkot	Sorag

31	Bageshwar	Wachham	70	Garud Baijnath	Bhil Kot
32	Kapkot	Bhanar	71	Garud Baijnath	Chhatiya
33	Garud Baijnath	Majkhet	72	Garud Baijnath	Jyuna State
34	Kapkot	Mandalsea	73	Garud Baijnath	Kansyari
35	Kapkot	Liti	74	Garud Baijnath	Kulaun
36	Kapkot	Sirkot	75	Garud Baijnath	Lakhani
37	Kapkot	Baghar	76	Garud Baijnath	Naughar
38	Bageshwar	Farsali Walli	77	Garud Baijnath	Simkhet
39	Garud Baijnath	Namti Chita Bagar	78	Garud Baijnath	Urkhuli
40	Garud Baijnath	Supi	79	Kapkot	Chalkana
41	Bageshwar	Harwar	80	Kapkot	Chaura
42	Garud Baijnath	Jakhera	81	Kapkot	Gasi
43	Kapkot	Simgari	82	Kapkot	Kharkana Toli
44	Kapkot	Farsali Palli	83	Kapkot	Mahruri
45	Garud Baijnath	Lamchula	84	Kapkot	Pachar
46	Bageshwar	Pandra Pali	85	Kapkot	Suding
47	Kapkot	Bari Panyali	86	Garud Baijnath	Maj Kot
48	Kapkot	Jagthana	87	Garud Baijnath	Gheti
49	Garud Baijnath	Purara	88	Bageshwar	Kathayatbara
50	Kapkot	Nakuri	89	Garud Baijnath	Darshani
51	Kapkot	Purkuni	90	Kapkot	Badiyakot
52	Bageshwar	Pang Chora	91	Kapkot	Bamsera
53	Bageshwar	Majiyakhet	92	Garud Baijnath	Silli
54	Garud Baijnath	Maigari State	93	Garud Baijnath	Gwar Pajena
55	Kapkot	Aithar	94	Garud Baijnath	Hawil Kulwan
56	Kapkot	Cheera Bagar	95	Garud Baijnath	Mela Dungri
57	Kapkot	Gadera	96	Garud Baijnath	Munyura Mafi
58	Kapkot	Lili	97	Kapkot	Baisani
59	Bageshwar	Simkuna	98	Garud Baijnath	Dhyonai
60	Garud Baijnath	Bhatriya	99	Bageshwar	Mal Suna
61	Garud Baijnath	Charson	100	Kapkot	Beira Majhera
62	Garud Baijnath	Gani Gaon	101	Bageshwar	Dhapti
63	Garud Baijnath	Pinglon	102	Kapkot	Bhayu Maihurauni
64	Kapkot	Chachai	103	Bageshwar	Musoli Chak Josh
65	Kapkot	Jarti	104	Kapkot	Dayali Kurauli
66	Garud Baijnath	Laubaj	105	Kapkot	Dhamigaon Kirai
67	Kapkot	Gogina	106	Garud Baijnath	Atartoli Pachami
68	Bageshwar	Jolkanda	107	Bageshwar	Bheru
69	Bageshwar	Mankot	108	Garud Baijnath	Bhakunkhola

13.1 Level of Development

The foregoing chapters described the physical, demographic and socio-economic characteristics of Bageshwar District. In this section, status of existing infrastructure facilities, development potentials and constraints have been identified while considering the phasing and priority of development.

Levels of development in an area are the result of various factors such as availability of infrastructure, resource potential, employment opportunities, literacy, etc. In the District, there is wide difference in the levels of development of different blocks due to number of factors such as terrain, soil fertility, availability of suitable land for agriculture, road network, presence of natural resources, literacy, population growth etc. In order to assess the development status of all the blocks, it is essential to identify certain indicators which can provide an idea about the level of development viz. fast, slow or poor development over a period of time.

As stated in the previous chapters, agriculture is the major source of income in the District. Due to small land holdings and presence of hilly terrain, agriculture does not provide adequate job opportunities. This results in out migration. Once, proper phasing and priorities for development are considered, there will be boost in rural growth. The large villages with population of 500 and above are likely to become rural markets in the next decade and there will be a shift of rural population to these large rural settlements. The future requirements of basic facilities and other infrastructure in different blocks will have to be provided keeping in view the proposed population projection for 2021 as below:

1. It is estimated that by the year 2021 the District will have the population of 2.94 lakh
2. The urban growth of the only town Bageshwar will be 12935 in the corresponding year.

3. The blocks, will have new growth centres like Shama, Ason (Kapkot), Wajyula, Galai (Garud Baijnath), Khantoli and Anarsa (Bageshwar). The rural population will shift to these centers in the next decade.

It is observed that in some parts of Kapkot there is still scope for increasing the area under cultivation, since it has high proportion of cultivable wasteland and fallow lands. But in Bageshwar and Garud, there is very little potential for further agricultural development due to high percentage of forest cover, uneven topography and non-availability of arable land for further agriculture development.

The Perspective Plan for the Bageshwar District-2021 stipulates an inter-related policy framework for achieving the objectives of the Plan. These policies require several development strategies to be followed with different phases which have significant impact on Programmes to be taken in the District. The various strategies and priority areas for the development of District as discussed below are related to the goals of the Perspective Plan for the District.

Although, the year 2021 has been taken as the horizon year for the Plan however, the plan is an integral part of a continuous process. It is essential to place the tasks into an order of priority. The tasks can be divided into following:

- i) Action Plan and Programmes (Central Govt., State Govt. and Urban Local Body).
- ii) Strengthening of institutional arrangements (as per 73rd and 74th CAA).
- iii) Dovetailing of resources and its mobilization.
- iv) Implementation and Monitoring of the projects.
- v) Fiscal arrangements.

The Perspective Plan contains broadly policy framework, development strategy, identification of potentials and problems are issues of the proposed area guidelines for future development. The development strategies

proposed in the Plan need to be translated into a set of programmes and phased suitably to achieve the major objectives. The period of plan implementation is classified into three phases coinciding with the Five Year Plan periods that can be organized within the limits of the resources and implementing capacities of the organizations involved. The three phases would be as follows:

- Phase-I (2010-12)
- Phase-II (2012-17)
- Phase-III (2017-21)

13.2 Core Priority Plan Period

Based on the potentials of the villages and their composite scores as dealt in previous chapters, projects and schemes for each development phase have identified. Phase-I and II covering a span of seven years have been envisaged as the core priority plan period. This period would be the gestation period for the projects and schemes to be completed and development measures to be taken. During first half of the core priority plan period, the process of land acquisition especially for tea plantation, tourism development, irrigation and housing etc. is to be completed. It is proposed that the major sub-regional centre (second highest hierarchy of settlement) and rural market centres (third highest hierarchy of settlements) level facilities as discussed in chapter 12, be implemented in this period so that they can adequately meet the demands. The sub-regional centre of Bageshwar town will continue to depend on higher level facilities such as airport facilities, technical university, rail network, health facilities, courts and administrative services existing at the regional centre. However, during this period emphasis should be given to strengthen the road connectivity between sub-regional centre and different regional centres located outside the district. The rural market centres (6) would be the future urban centres in the district. The rural service centres (21) and basic villages (87) are fourth and fifth hierarchy of the settlements in the district. The rural service centres would tend to become census towns by 2021. Therefore, during this phase apart from strengthening their economic

base, the orderly development of these villages is also needed to be considered. In Phase-III, the projects already conceived during phase-I and II would start delivering results and would become the basis for future development. The services and infrastructure and connectivity need to be strengthened in these rural centres keeping in view the forward and backward linkages.

The primary sector activities like agriculture, floriculture, horticulture, cultivation of medicinal herbs and aromatic plants, tea plantation, etc. are to be given prime importance. The secondary sector activities like food processing industries, biotechnology, tea factories, etc. have a multiplier effect on the expansion of local and regional economy. For effectuation of such programmes the industrial framework at the state, district and local levels would need to be strengthened and action taken to improve the resource mobilization at the local level. This would also call for interlink ages of investment and programmes of the agencies such as Public Works Department, Major Irrigation and Minor Irrigation Departments, Electricity Department, etc. which are responsible for socio-economic development.

13.3 Panchayati Raj Institutions

The Phase-I development would focus upon speedy implementation of the projects as a part of 11th Five Year Plan document of the State Govt. This would also focus on strengthening of Panchayati Raj System in the district and formation of three tier system in rural and urban area as per 73rd and 74th CAA. Panchayati Raj Institutions are the grass root units of self government, which have been proclaimed as the vehicles of socio- economic transformation in India.

13.4 Agriculture Development

The dependence of farmers on cultivable land is putting tremendous strain on the limited land resource, since agriculture is the mainstay of the economy in the district. This is resulting in decline in cultivable land and net sown area to some extent, with large-scale increase in the uncultivable land.

During Phase-I, it is proposed to increase arable land which includes net sown area, fallow land, culturable waste land and area under pasture, etc. This can be achieved by bringing more areas under irrigation.

The extension services may be developed to enhance the yield of agricultural produce. The availability of major inputs in respect of agriculture, such as supply of seeds, fertilizers, insecticides, pesticides and use of modern implements alongwith the availability of infrastructure like roads, electricity, marketing, finance, etc. should be given priority. It is proposed to facilitate the farmers by commissioning training centres in the identified rural market centres in Phase-I and rural service centres in Phase-II. The Strategic Research Extension Programme (SREP) should focus on making the agriculture sector sustainable. Small model farms in the identified villages should be set up on a regular basis where the farmers may be provided training regarding cultivation by modern methods of farming with tractors/threshers etc to get good yields in short time. Modernization of farm practices needs to be encouraged.

Road connectivity, marketing facilities, communication facilities, extension facilities like fertilizers, high yielding varieties of seeds and modern agricultural equipments etc. need to be provided during the Core Priority Plan Period.

There is predominance of farmers with small land holdings, who have very low purchasing power and are unable to adopt modern methods of farming due limited financial resources. The primitive equipments used for cultivation need to be replaced by modern agricultural equipments such as sprayer, haro and cultivators etc. in a phased manner.

There are instances of converting productive agriculture land for non-agriculture purpose especially in the periphery of Bageshwar town and Garud Baijnath. Efforts should be made to stop such conversion, which are likely to change the agricultural scenario. Efforts should also be made to see that no fertile land or other land, which are likely to be brought under irrigation command of a project, be converted into non-agricultural use.

During the core priority plan period, detailed Action Plan for Agro Export Zones (AEZs), floriculture parks and agro parks with common infrastructure facilities for sorting, pre-cooling, cold chain, processing, grading, packing and marketing facilities need to be developed in the district. Leechi, horticulture, herbs, medicinal plants etc. are the important sectors for future development. Since Uttarakhand has been included in difficult area category by the Ministry of Food Processing Industry (MFPI), therefore, agricultural units being set up in the District will be eligible for higher incentives under the scheme of MFPI. In phase-III, Agro Export Zones in identified Rural Market Centres are proposed to be taken up.

The farmers should be encouraged to diversify the cropping pattern and change to cash and commercial crops like soyabean, chilies, turmeric etc., which have huge demand in the market and will yield good returns. Horticulture crops will also provide good profits to the farmers. These crops can be grown alongwith traditional crops in small areas in identified villages initially, since they require less expenditure.

The higher support prices in view of high input costs of seeds, fertilizers, manure, etc. should be provided. They should be provided subsidies/incentives in the form of soft loans for purchasing high yielding varieties of seeds, manures, fertilizers, insecticides, machines etc. Some measures may be devised so that a horticulture producer can get maximum price for his crop.

Since a substantial number of agricultural holdings are of up to 2 hectares, it is essential to extend the high yielding varieties programme, to cover entire agricultural land in the region.

The problem of soil erosion is also quite rampant. Therefore efforts should be made by the Govt. to concentrate on other techniques of soil conservation like, building of check dams on non-arable lands, paddy bunding, loose bolder structures, nullah bunding etc. and other similar measures which are not very expensive.

13.4.1 Agriculture Marketing Infrastructure

The main yards and sub-yards need to be identified and located at suitable distance within the identified rural centres with provision of proper road connectivity so that the farmers can reach swiftly without damage to their precious crops. Supply and distribution of high yielding varieties of seeds and fertilisers through APMC yards and sub-yards needs to be strengthened. The distribution network of inputs such as seeds, fertilizers, manures, etc. needs to be extended so that it is easily accessible to small farmers. The storage facilities would consist of village cooperative godowns and Govt owned godowns. Cooperative godowns need to be encouraged at all rural market centres and rural service centres. The Govt. godowns would be located at rural market towns.

13.4.2 Animal Husbandry

During Phase-I, the gaps in existing veterinary facilities need to be identified. During Phase-II and III, the veterinary facilities need to be extended to all identified rural market and service centres keeping in view the livestock population and road accessibility. The District is deficient in veterinary centres. There is need to increase the number of primary trained veterinary personnel also.

The various facilities like Veterinary Dispensary and Veterinary Aid Centre combined with artificial insemination sub-centre need to be provided for cattle in the district. Various campaign and awareness programmes about the diseases of the cattle need to be chalked out in the beginning of every year. Veterinary hospitals with cattle breeding farms may be established at sub-regional, rural market towns and rural service centres.

13.4.3 Dairy Industry

During Phase-I, it is proposed to set up a dairy plant at sub-regional level i.e. at Bageshwar town. At present, the dairy plant is located at Almora. Due to unorganized collection of milk and non-remunerative prices offered to the farmers, the dairy plant is not being utilised up to its installed capacity.

Therefore, during Phase-I, there is a need to develop this sector and collect the milk from the rural villages in an organized way. The collection depots may be set up in the identified rural market towns and rural service centres during Phase-II. It is essential to develop good and quick transport network so that the milk can be transported from remote rural villages to the collection depots and finally to the dairy plant.

Sheep rearing and poultry farming may be encouraged for those people who are practicing dairy farming. This would provide them income as there is huge demand for meat in the district. Incentives, transport facilities, financial assistance and markets are to be provided to the cooperatives. The Mahila dairy cooperatives needs to be encouraged.

13.4.4 Fisheries

There is potential for development of this sector due to presence of large number of ponds and Tanks. There is good scope for developing fishing activity since there is great demand for fish. There is also scope for employment generation in this sector. During Phase-I, small fish can be reared in these ponds and fingerlings can be made available to local unemployed youth who can rear them and market them to fish producers.

During Phase-II and III, there is a need to develop better marketing facilities, good storage facilities, and quick transportation facility by refrigerated vans for development of fisheries.

The fishermen need to be trained about the modern techniques of fishing. The land available for fishing can be utilised by adopting new techniques and modern equipments to increase the fish catch. There is immense scope for developing fisheries in Bageshwar, Garud and Kapkot where there is abundance of unutilised water. The farmers should be encouraged to provide subsidy for purchase of fishery equipment like boats, nets and mats, etc.

13.5 Irrigation

During Phase-I and II, it is proposed to store adequate water through rainwater harvesting in order to utilize it during dry spells. Since the maintenance and upkeep of equipments installed to lift water from rural lift irrigation schemes is not carried out regularly in the district, the farmers experience difficulty in irrigating their fields. Due to this problem, they are generally disinclined to irrigate their fields from these sources. Efforts should therefore, be made to popularize this Scheme among the local farmers so as to increase the utilisation level of this Scheme.

13.6 Horticulture

During the core plan period, high quality horticulture farms in identified belts of Sub-Regional Centre and Rural Market Centres a needed to be developed and such areas should be made vibrant with horticultural activities which in turn will act as hubs for developing commercial horticulture. Apart from development of post-harvest management infrastructure, the Market Information Systems and horticulture database need to be strengthened during this period. It is proposed that one Horticulture Research Institute be developed at sub-regional centre i.e. in the Bageshwar town. This would include R&D programmes and impart training and education to farmers and processing industry personnel for improvement of agronomic practices and new technologies. National Horticulture Board Programmes would continue to be implemented in the District.

During Phase-III, it is proposed to have horticulture mobile teams at least in all the identified rural market centres and rural service centres with provision of nursery and fruit processing facilities. The sound marketing facilities and APMC markets needed to be developed in these centres to avoid under valuation of the produce such as pear, citrus and mango and to increase sale of vegetables etc.

During the Phase-II, it is proposed to establish one agricultural Institute to increase the awareness of farmers. These Institutes can organise

demonstration camps, training centres in rural areas, which can provide knowledge and assistance to them in everyway on a regular basis. The potato growers of Kapkot block need such training to boost their production.

13.6.1 Medical and Aromatic Plants

District level Research Centre for medicinal and aromatic plants may be started in the Bageshwar town at sub-regional level to provide quality planting material and to train technical know-how generated. Herbal wealth of different species of known medicinal and aromatic plants, available in the Agro and Food Processing Industries need to be developed carefully.

13.6.2 Floriculture

During Phase-I and II, floriculture needs to be encouraged in selected villages of Kapkot and the farmers need to be provided assistance for floriculture cultivation.

13.7 Tourism Development

The District has very good potential for tourism sector, which may offer more revenue to the District. During Phase-I and II, integrated tourist infrastructure such as hotels, rest houses, sources of entertainment, bus depots etc. needed to be developed in selected tourist spots. The strengthening of roads will give a boost to tourism since many tourist spot monuments are located in remote areas. It will also act as an active agent for bringing development in the region.

Kausani (Garud Baijnath Block) a beautiful hill station has been identified as one of the 87 basic villages, which attracts more tourists for the view of Himalayas. The Himalayan Peaks like Trisul, Nanda Devi and Pauchchi could be accessed from Kausani. Therefore, during phase-I, Kausani would be developed as world class tourism destination. The Tourism Plan of Kausani needs to be prepared which would incorporate the provision of other physical infrastructure and would need to be integrated in the District

Development Plan. In phase-II, tourism Development Action Plan needs to be prepared for the whole district with special emphasis for trekking and views.

During Phase-III, major and medium irrigation projects can be taken in the identified villages and the proposed sites and surroundings of tanks be developed, to serve as tourist centre/picnic spots, if they are properly developed with adequate infrastructure.

13.8 Industrial Development

In order to give boost to employment, the action plan for the development of industries based on local existing resources needs to be prepared and infrastructure developed for the industrial improvement during phase-I & II.

During Phase-III, the integrated industrial estates may be developed in the Bageshwar and Kapkot blocks in the identified villages. One Pharma City in Garud Baijnath is proposed to be developed. The information technology park is proposed in Kausani. Another 21 rural service centres for industrial development may be taken up in the District during the Phase-II keeping in view the available industrial resources in the District. Efforts should be made to provide single window facilitation in the State to expedite project clearances and provide an investor friendly climate for balanced industrial development. Mining industry may be developed during this phase in a planned way to avoid environmental disasters due to mining within the purview of proper action plan.

During Phase-III, To promote and encourage private sector participation in the development and management of infrastructure projects such as Industrial Estates/Areas, Growth Centers, IIDCs, Special Economic and Commodity Zones and Parks, Theme Parks, Tourism infrastructure, development of new tourist destinations, Airports/Helipads/Airstrips, Roads, generation, transmission and distribution of power, and projects in the area of Horticulture, Floriculture, Bio-technology, etc.

During the Core Priority Plan Period, the Small scale industries, Cottage, Khadi and Village Industries and Handicrafts Silk and Handloom sectors should be given priority with necessary support for modernization and technological up-gradation. This would also require strengthening of forward and backward linkages including product design and marketing support so as to make them globally competitive and remunerative.

It is proposed to develop industries related to food processing, vegetable oils, and decorative furniture from the forests, cattle feed, poultry feed mixing units, medical plants /herbs, traditional handicrafts etc. at the sub-regional centre level.

In the rural market centres, cottage and small industries based on forest produce may be located which would require semi skilled apart from meagre investment. Such industries would provide supplementary works to its inhabitants during the year and off-season. The oils from special type of grass for use as scent in soaps and cosmetics, woollen weaving by hand/ power looms, footwear related industries may be encouraged.

13.9 Infrastructure Development

13.9.1 Roads

The road network in the Bageshwar urban area is very poor. The roads are narrow and there is no Right of Way (ROW). The urban areas are characterized by huge traffic congestion, lack of parking spaces, lack of pedestrian pathways etc. Therefore, urban renewal exercise needs to be taken in Bageshwar urban area during the Core Priority Plan Period. The present concrete bridge over Saryu River is the main link which connects Bageshwar town from two parts. The width of the bridge is inadequate which needs to be widened during Phase-I, keeping in view the future traffic demands. New concrete bridges over the river are also proposed to be constructed during the Phase-I and II. A Transport Nagar is proposed to be constructed at the identified place outside the Bageshwar town for proper parking of the trucks. Similarly multi-level parking may be encouraged in the

town to avoid road side parking on the already narrow roads. At present the National Highway passes through Bageshwar urban area, which creates severe congestion in the town. It is proposed that Bye-Pass roads may be constructed so that vehicles going to other districts need not pass through the urban area.

The composite index list as illustrated in previous chapter indicate that there are huge number of villages especially in Kapkot and Garud Baijnath blocks which are located more than 2 km away from the roads. Such identified villages which are potential Rural Marketing Centres and Rural Service Centres which need to be connected by major district roads. The narrow roads in these above centres may be widened by constructing retaining walls, etc. in order to avoid landslides. Precautionary measures should be taken in identified villages of Kapkot block which are disaster prone and are subject to frequent landslides.

There is need to prepare Master Plan for village road network by taking up proper contour survey. The village roads may be strengthened, widened and constructed phase-wise.

13.9.2 Transport and Communications

Since Bageshwar district has undulating topography, there is lack of transport facilities in the remote areas. Therefore, the State Transport services viz., permanent bus stations and depots, temporary bus stations, pick-up stops, transport depots, but stands, etc. need to be developed for easy commutation. The transport infrastructure such as motor repair workshops, rest houses, hotels for truck drivers, training facilities for drivers etc. can give a boost to the transport sector.

It is necessary to increase the network of posts and telegraph services to facilitate the villagers. It is proposed to provide the postal and telecommunication services within the easy reach of the tribal and non-tribal settlements as per the Govt. norms in the identified rural centres.

13.9.3 Health facilities

The health facilities are very scarce and unevenly distributed in the district, which are insufficient to serve the population of hilly district. At sub-regional level one homeopathic hospital is proposed to be constructed in rural areas of Bageshwar block during the first phase, as there is only one homeopathic hospital in Bageshwar urban area to cater to needs of entire population of Bageshwar Block. One Family and Maternity Welfare Centre in each rural market centres (6) are proposed in the district during this phase. One primary health centre each in Kapkot block and Garud Baijnath block are proposed.

It is important to provide higher order facilities like hospitals, maternity and child care centres in rural service centres and rural market towns also within commuting distance and well connected.

The numbers of doctors, beds and other infrastructures in the hospitals needs to be increased in order to keep a pace with the increase in population in coming years. Thus, it is necessary for redistribution in terms of norms laid down by the Govt., especially in the deficient blocks keeping in view the hilly terrain. It is suggested that existing civil hospital at sub-region level (Bageshwar town)be expanded with addition of more specialized services to avoid frequent visits to regional level services located at Dehradun, Pant Nagar, Almora and Nainital.

13.9.4 Education

The weightage score worked out for education sector in previous chapters indicate that except Shama rural market centre which has 6.29 score on ten scale, the score of other five rural market centres i.e. Wajyula, Ason, Khantholi, Anarsa, and Galai vary between 1.57 to 4.43. This indicates scarcity and uneven distribution of educational facilities in the rural centres. Similarly, rural service centres numbering to 21 are the fourth order of hierarchy like educational facilities. Therefore, during the first phase three degree colleges need to be located in each block of Bageshwar district

inclusive of hostel facilities for boys and girls in order to provide accommodation for rural students in the District which are easily accessible to the villagers. Similarly, lower order educational facilities such as senior secondary, secondary and primary schools along with polytechnic and Industrial Training Institutes (ITI) are proposed to be set up in the identified rural market centres during phase I and II. The vocational courses such as Fitter, Automobile, Mechanical, Carpenters and Computer and Fruit Processing related courses need to be introduced initially. Subsequently, the specialized courses in the field of engineering, medical sciences, fashion design, beautician courses etc. are needed to be introduced at higher level in phase-III. The vocational training centres and technical institutions related to the tribal culture may be provided in the market towns that can help in increasing literacy among these people and thereby improving the standard of living especially of rural women.

13.9.5 Water supply

The water taps and rivers are the main source of water supply in the District. During phase-I and II there is need to bring all the identified 108 villages under uninterrupted water supply scheme. The flow of water duration and quality of water needs greater attention.

It is also proposed to manage the water resources with the support of local people by way of rain water harvesting, etc. It is possible to harness the 312 MLD of freshwater that the rains annually bring to the neighboring hill slopes. If a minimum of 1,000 mm of rainfall is judiciously harvested annually, the water problem can be solved to a great extent. This will increase summer flows in the Gomti river network. Constructing series of infiltration trenches, small check dams across the Gomti and its tributaries can be done during Phase-II and III.

The settlements located on ridges and in the higher slopes need to take extra precaution for maintaining its pollution level as they are largely dependent on the springs for water supply. The clearing of trees for

construction and disposal of garbage into the water has increased the level of pollution, which needs to be addressed.

Absence of proper sewerage system and solid waste management in the town are the main causes of pollution of spring water in the area. Besides, natural factors such as presence of minor metals and other inorganic pollutants in the soil/rocks are also responsible for pollution and poor quality of spring water to some extent.

There is need to augment the water supply system and develop ground water resources of Bageshwar district. The replacement of the pipelines damaged due to heavy rains, flood and landslides along its alignment need to be completed during first two years of phase-I. There is also need to educate the rural masses about the water management. A concerted effort by the user and service provider, be it the rural community, Gram Panchayat or Non Government Organization can make a significant difference in improving the ground water quality.

13.9.6 Sewerage

Sewerage system in Bageshwar urban area is essential to prevent the mixing of sewage into the rivers. The large scale town level sewerage system in the Bageshwar town is not economical due to hilly terrain. Therefore, it is proposed to have neighborhood level sewerage system instead of town level system. Therefore, considering the contours in the town proper sewerage system may be proposed by combining 2 or 3 neighborhoods/wards.

13.9.7 Drainage

There is no proper drainage system in the Bageshwar urban area. The proper road side drains are proposed to be constructed along the major roads with systematic channelization leading to the storm water drains. Proper care should be taken that storm water drain does not mix with sewage in the town. There is need to prepare Master Plan for drainage system for horizon year 2021. During Phase-I, proper water shed management may be

prepared and implemented in the identified villages of the District in subsequent phases.

There is no facility for disposal of waste water in urban area. It is necessary to prepare Integrated Drainage Scheme for sanitation, sewage treatment, solid waste management and environmental management under Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) of Ministry of Urban Development, Govt. of India. Due consideration need to be taken for the areas likely to be brought under urban expansion and for the large rural centres likely to come under the purview of Census Towns.

13.9.8 Electricity

As per data provided by UPCL and UREDA, 98 per cent of the villages of Bageshwar district are electrified. However, the district is severely characterized by load shedding and poor supply. Due to increase in population and shift in the use of electricity for specific purpose, the demand of electricity consumption is likely to increase in future. During Phase-I, high capacity transformers in indentified 108 villages needed to be installed to boost the electric supply.

During Phase- II, the Action Plan for the improvement of power in the district in the form of Micro-Hydel Projects and Non-Conventional Energy in the rural area of Bageshwar district may be initiated and implemented subsequently in coming phases. The public/private sector can play an active role in adequate generation of power supply and strengthening the transmission and distribution networks.

13.10 Urban Planning

The Master Plan of Bageshwar urban area needs to be prepared during Phase-I in order to address physical problems of the town. There is also need to prepare Comprehensive Mobility Plan, etc. keeping in view the 74th CAA, Building Bye-Laws and Zoning Regulations for Bageshwar town. The various social and physical infrastructure facilities such as Education,

Health, Social institutions, Water supply, Drainage, Sewerage and Sanitation, etc. needs to be considered during Phase-I, keeping in view the growing population of Bageshwar town. The indiscriminate destruction of the green cover and conversion of agricultural land to non-agricultural uses needs to be controlled urgently.

It is expected that the leading rural market centres are likely to get status of census towns by the year 2011 and rural service centres may be elevated to the level of census towns by the year 2021. It is essential to develop these rural centres in an organized and balanced manner. Their growth needs to be regulated from the very beginning. The essential social amenities, civic services, road connectivity and power supply, etc. needs to be provided in these rural centres during Phase-II and III.

13.11 Forest Development

Uttarakhand Bamboo and Fiber Development Board (UBFDB) play an important role in promoting bamboo & fiber based livelihood in the District. Research and Development of hemp fibre project can be made in the district in Phase-I. Chiprine and Oak trees plantation need to be developed in the high altitude areas.

Proper management of forests near settlements for ensuring recharging of water aquifers and afforestation programme for catchments of natural sources of water/springs along with measures for increasing infiltration of water without endangering the stability of hill slopes through bio-engineering methods, building up of spring sanctuaries, increasing vegetation in recharge zones, plantation of appropriate plant species like Oak to retain water and check the acidic contents needs to be done during Phase-I and II. Social forestry alongwith plantation of suitable grass and fodder plants at specific locations for development of grazing land for animals needs to be considered in this phase. Top priority should be given to forest fire prevention and control to reduce losses and emission of green house gases.

Since the forest areas have abundant wildlife which consists of different species of birds. Attempts are required to demarcate new areas for wildlife and bird sanctuaries to attract the tourists.

13.12 Medicinal and Herbal Plantation

The Herbal Research and Development Institute (HRDI) play an important role in research and production on aromatic plants used in cosmetics, soaps and perfumes. Although the productivity of land in the hills is very low, however, there is need to adopt clustered approach to increase the market values of the aromatic plants.

13.13 Multispectral Projects

There is need for multispectral projects and coordinated urban development projects for various sectors of the District. The regional level components to be included under multispectral projects comprise of National Highways, Expressways and Regional Roads, Railway linkage and Telecommunication.

The economic activities and employment oriented industries such as food processing, agro-based industries, tea factories, herbal and medical industries, biotechnology and mining industries needs to be taken up in Phase-I with the help of Government and Public Sector. Infrastructure and services like water supply, sanitation, storm water drainage, solid waste management, traffic and transportation etc. are to be improved for different settlements in the district. Social infrastructure such as education and health are to be provided. Shelter for poor people in the rural areas can be developed. Rural development can be carried out by starting small scale enterprises in the informal sector for expansion of employment opportunities and upgrading skills.

13.14 Priorities

More appropriate action would be required to designate the areas where urban and rural planning actions are required and to treat them as

priority areas for which integrated plans and programmes would be prepared. These would be called “action area” and plans would be called “action plans”.

The following things area are to be taken into consideration for the preparation of action plans:

- i) The State Government and District Administration would be responsible for complete programmes including the task of coordinating investments of public and private agencies.
- ii) The DPC in consultation with various Sectoral Departments, Town Planning Department, Ward Committees, Panchayat Samitis and other important departments of the District and the State of Uttarakhand would be responsible for the identification of suitable projects that supports the Plan objectives of the Bageshwar.
- iii) Proper techno-economic, financial and institutional aspects need to be deliberated before start of the project.
- iv) The details of financial assistance needs to be worked out at the time of plan formulation.
- v) Proper monitoring and appraisal of the projects needs to be taken at projects implementation stage.

13.15 Institutional Framework

The effective implementation and management of the projects depends on coordinated development and maintenance of various sub-systems which includes housing, physical and social infrastructure, transport and communication, etc. The integration of various tasks to be taken during Phase-I, II and III is most important . As a first step, the existing mechanisms for provision and maintenance of the various services and its deficiencies would be studied before taking up the proposed projects. Keeping in view the 73rd and 74th CAA, various departments viz. Zila Panchayats, Municipal Boards, Department of Town & Country Planning, Government of Uttarakhand and allied departments such as Public Works Department,

Irrigation Department, Water Supply Board, Electricity Department, Forest Department, Agriculture Department, etc. need to have coordination for successful implementation of the projects. This would involve review of working of Panchayat Samitis, Ward Committees, Taxation and tax recovery system of the Local Bodies and monitoring methods of the projects, at the local level.

13.16 Resource mobilization

The source for funding of proposed schemes and projects would be as follows:

- i. Grants and loans from Central Government.
- ii. Grants and loans from State Government.
- iii. Grants from local bodies.
- iv. Public private participation.
- v. Loans from financial institutions, etc.

The resources may be mobilized through the following institutions.

- i. Life Insurance Corporation of India.
- ii. Debentures/ Bonds.
- iii. Nationalized Commercial Banks.
- iv. Proposed Urban Development and Urban Water Supply Finance Corporation.
- v. National Housing Bank.
- vi. National Bank for Agriculture and Rural Development, etc.

At Urban Local Body level, Local Self Government should make efforts to raise additional resources by the following means.

- i. Locally raised taxes.
- ii. User charges.
- iii. Market borrowings.
- iv. Other non-tax revenues for performance of statutory and regulatory functions.

- v. Transfers from higher levels of Government including shared taxes and grants-in-aid.

13.17 Private Sector Participation

Recognizing the critical importance of the private sector and the dominant role of private investment in total investment, its resources and expertise should be incorporated in the planning process. Planning involves the integration of larger number of sectors relating with such as economic development, social services, rural development, forests and environmental management.

Annexure-8.1

Existing Panchayati Raj Institutions in Bageshwar

AT III Tier 19 representatives of Zila Parishad are elected by people at district level and 7 ward members in Municipal Council, Bageshwar.				
A - Zila parisad	Mun. Council, Bageshwar (Urban level)	B- DPR Office	C- Rural Dev. Deptt	D – Admn.
President	Chairman	DPRO	CDO	Collector Coordinator for all schemes)
Vice President	Executive officer	Accountant	Project Director	CDO- Mainly all types of Rural Development Schemes
AMA	Tech. & other Staff	Staff	Tech Officer	SDM,
Executive Officer			Other staff	Sthaniya Panch Chunawalaya for PRIs.
Tech.& Other staff				Other Deptt.
Provision of Six District Development Committees with five members in each. <ul style="list-style-type: none"> • Planning & Development Committee headed by President, Zila Parishad, Bageshwar, CDO (Secretary) and all district level officers. • Administrative Committee is also headed by President, Zila Parishad. • (New taxes & Development proposal approved by General meeting of Zila Parishad). • Members of General Meeting (President, Vice president, CDO, Block Pramukh, MLAs, MP, Representative for Zila Panchayat). 				
At the II Tier 3 Blocks in the District Bageshwar (40 Representatives are elected by people at block level)				
Kapkot	Bageshwar	Garud-Bajjnath	Rural development Schemes /Project	Admn
Kshetra Pramukh	Kshetra Pramukh	Kshetra Pramukh	BDO (Scheme/ MLALAD & MPLAD Fund , Awas Schemes, NAREGA,PGSY)	SDM
Sr. Pramukh	Sr. Pramukh	Sr. Pramukh	Tech . Staff	Tehsildar
Jr. Pramukh	Jr. Pramukh	Jr. Pramukh	other Staff	Patwari
				other staff

At the I Tier (Representatives are elected by people at Gram Panchayat level)	
Gram Panchayats (363 Gram Panchayats in Bageshwar District.	Officers From Admn. Side
Gram Pradhan	Village Panchayat Development Officer Work Supervised by BDO office Maintaining the Joint Account (Pradhan & Village Panchayat Development Officer) UCs submitted to BDO & DPRO.
Dy. Gram Pradhan (Not in Practical)	
Development work approved in open meeting (Gram Sabhas)	
Development Committees <ul style="list-style-type: none"> • Planning & Dev. Committee • Education Committee • Construction–work Committee • Health and welfare Committee • Administrative Committee • Water Management Committee 	Size of Gram Panchayat depend on population (Voters): <ul style="list-style-type: none"> • 5 member up to 500 • 7 member 501 to 1000 • 9 member 1001 to 2000 • 11 member 2001 to 3000 • 13 member 3001 to 5000

Source: As per discussion with Officers of local administration, Bageshwar during Bageshwar visit.

Annexure-12.1

LIST OF WEIGHTED SCORES OF VILLAGES

Sl. No.	Block Name	Village Name	Total Pop.	Village connectivity (Kms)				Admn. Status	EDUCATIONAL FACILITIES							
				0-1	1-2	2-5	Total		Pan-chayat	Pry Sch.	Middle School	Sec. Sch	Sr Sec. School	College	Trng School	Adult Literacy Centre
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Bageshwar	Anarsa	762	10			10	10	10	0	0	0	0	0	0	1.43
2	Bageshwar	Bamrari	696	10			10	10	5	6	0	0	0	0	0	1.57
3	Bageshwar	Bheru	563				0		10	0	0	0	0	0	0	1.43
4	Bageshwar	Bijori Jhal	858				0	10	5	0	0	8	0	0	8	3
5	Bageshwar	Dhapti	542				0		5	0	0	0	0	0	0	0.71
6	Bageshwar	Harwar	564				0	10	10	6	7	0	0	0	0	3.29
7	Bageshwar	Jethai	701		8		8	10	10	6	0	0	0	0	0	2.29
8	Bageshwar	Jolkanda	633				0	10	5	0	0	0	0	0	0	0.71
9	Bageshwar	Kande Kanyal	662				0	10	10	12	14	8	0	0	0	6.29
10	Bageshwar	Kathayatbara	2482				0	10	5	0	0	0	0	0	8	1.86
11	Bageshwar	Khantoli	510	10			10	10	5	0	0	0	0	0	0	0.71
12	Bageshwar	Kholi	603	10			10	10	5	6	0	0	0	0	0	1.57
13	Bageshwar	Kunera	655	10			10	10	5	0	0	0	0	0	8	1.86
14	Bageshwar	Majiyakhet	839				0	10	5	6	0	0	0	0	0	1.57
15	Bageshwar	Mal Suna	563				0		5	6	0	0	0	0	0	1.57
16	Bageshwar	Mandalsea	3450				0	10	15	6	7	0	0	0	0	4
17	Bageshwar	Mankot	552				0	10	5	0	0	0	0	0	0	0.71
18	Bageshwar	Musoli Chak Josh	550				0		0	0	0	0	0	0	0	0
19	Bageshwar	Pandra Pali	714				0	10	10	0	0	0	0	0	0	1.43
20	Bageshwar	Pang Chora	804				0	10	5	0	0	0	0	0	0	0.71
21	Bageshwar	Simkuna	1287				0	10	10	0	0	0	0	0	0	1.43
22	Garur Baijnath	Atartoli Pachami	787				0		5	6	0	0	0	0	0	1.57
23	Garur Baijnath	Bhakunkhola	620				0		5	0	0	0	0	0	0	0.71
24	Garur Baijnath	Bhatriya	1040				0	10	10	0	0	0	0	0	0	1.43
25	Garur Baijnath	Bhil Kot	552				0	10	5	0	0	0	0	0	0	0.71
26	Garur Baijnath	Charson	876				0	10	10	0	0	0	0	0	0	1.43
27	Garur Baijnath	Chhatiya	629				0	10	5	0	0	0	0	0	0	0.71
28	Garur Baijnath	Darshani	633				0	10	0	0	0	0	0	0	0	0
29	Garur Baijnath	Dhyonai	786				0		5	0	0	0	0	0	0	0.71
30	Garur Baijnath	Fulwari Gunth Ba	650				0	10	0	0	0	0	0	0	0	0
31	Garur Baijnath	Galai	526	10			10	10	5	6	0	0	0	0	0	1.57
32	Garur Baijnath	Gani Gaon	631				0	10	10	0	0	0	0	0	0	1.43

Perspective Plan of Bageshwar District - 2021

Sl. No.	Block Name	Village Name	Total Pop.	Village connectivity (Kms)				Admn. Status	EDUCATIONAL FACILITIES							
				0-1	1-2	2-5	Total		Pan-chayat	Pry Sch.	Middle School	Sec. Sch	Sr Sec. School	College	Trng School	Adult Literacy Centre
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
33	Garur Baijnath	Garser	595				0	10	5	6	7	8	0	0	0	3.71
34	Garur Baijnath	Gheti	649				0	10	5	0	0	0	0	0	0	0.71
35	Garur Baijnath	Gwar Pajena	916				0	10	10	0	0	0	0	0	0	1.43
36	Garur Baijnath	Hawil Kulwan	546				0	10	5	0	0	0	0	0	0	0.71
37	Garur Baijnath	Jakhera	698				0	10	10	6	7	0	0	0	0	3.29
38	Garur Baijnath	Jyuna State	539				0	10	5	0	0	0	0	0	0	0.71
39	Garur Baijnath	Kansyari	988				0	10	5	0	0	0	0	0	0	0.71
40	Garur Baijnath	Kausani State	2626				0		25	6	0	8	0	8	0	6.71
41	Garur Baijnath	Kulaun	1140	10			10		5	0	0	0	0	0	0	0.71
42	Garur Baijnath	Lakhani	1297				0	10	5	0	0	0	0	0	0	0.71
43	Garur Baijnath	Lamchula	657				0	10	10	0	0	0	0	0	0	1.43
44	Garur Baijnath	Laubaj	696				0	10	5	0	0	0	0	0	0	0.71
45	Garur Baijnath	Maigari State	1366				0	10	5	6	0	0	0	0	0	1.57
46	Garur Baijnath	Maj Kot	1133				0	10	5	0	0	0	0	0	0	0.71
47	Garur Baijnath	Matena	579	10			10	10	5	0	0	0	0	0	0	0.71
48	Garur Baijnath	Mela Dungri	606				0	10	5	0	0	0	0	0	0	0.71
49	Garur Baijnath	Munyura Mafi	1825				0		15	0	0	0	0	0	0	2.14
50	Garur Baijnath	Naughar	619				0	10	5	0	0	0	0	0	0	0.71
51	Garur Baijnath	Paye	589				0	10	5	0	0	0	0	0	0	0.71
52	Garur Baijnath	Pinglon	1003				0	10	5	0	0	0	0	0	0	0.71
53	Garur Baijnath	Purara	850				0	10	5	6	7	8	0	0	0	3.71
54	Garur Baijnath	Silli	777				0	10	5	0	0	0	0	0	0	0.71
55	Garur Baijnath	Simkhet	564				0	10	5	0	0	0	0	0	0	0.71
56	Garur Baijnath	Sirkot	1175				0	10	5	6	7	0	0	0	0	2.57
57	Garur Baijnath	Urkhuli	533				0	10	5	0	0	0	0	0	0	0.71
58	Garur Baijnath	Wajyula	1290	10			10	10	10	6	7	8	0	0	0	4.43
59	Kapkot	Aithar	846				0	10	5	6	0	0	0	0	0	1.57
60	Kapkot	Ason	742	10			10	10	5	6	7	8	0	0	0	3.71
61	Kapkot	Badiyakot	623				0	10	0	0	0	0	0	0	0	0
62	Kapkot	Baghar	1673				0	10	5	6	7	8	0	0	0	3.71
63	Kapkot	Baisani	542				0		10	6	0	0	0	0	0	2.29
64	Kapkot	Bamsera	818				0	10	0	0	0	0	0	0	0	0
65	Kapkot	Baret	1387				0	10	25	6	7	8	0	0	0	6.57
66	Kapkot	Bari Panyali	693				0	10	15	0	0	0	0	0	0	2.14

Perspective Plan of Bageshwar District - 2021

Sl. No.	Block Name	Village Name	Total Pop.	Village connectivity (Kms)				Admn. Status	EDUCATIONAL FACILITIES							
				0-1	1-2	2-5	Total		Pan-chayat	Pry Sch.	Middle School	Sec. Sch	Sr Sec. School	College	Trng School	Adult Literacy Centre
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
67	Kapkot	Beira Majhera	940				0		5	6	0	0	0	0	0	1.57
68	Kapkot	Bhanar	1775				0	10	20	6	0	0	0	0	0	3.71
69	Kapkot	Bhayu Mai Hhurauni	574				0		5	0	0	0	0	0	0	0.71
70	Kapkot	Chachai	1222				0	10	10	0	0	0	0	0	0	1.43
71	Kapkot	Chalkana	668				0	10	5	0	0	0	0	0	0	0.71
72	Kapkot	Chaura	617				0	10	5	0	0	0	0	0	0	0.71
73	Kapkot	Cheera Bagar	632				0	10	5	6	0	0	0	0	0	1.57
74	Kapkot	Dayali Kurauli	582				0		0	0	0	0	0	0	0	0
75	Kapkot	Dhamigaon Kirai	680				0		0	0	0	0	0	0	0	0
76	Kapkot	Dulam	577	10			10	10	10	0	0	0	0	0	0	1.43
77	Kapkot	Farsali Palli	727				0	10	5	0	0	0	0	0	0	0.71
78	Kapkot	Farsali Walli	818				0	10	5	6	7	8	0	0	0	3.71
79	Kapkot	Gadera	679				0	10	5	6	0	0	0	0	0	1.57
80	Kapkot	Gasi	626				0	10	5	0	0	0	0	0	0	0.71
81	Kapkot	Gogina	907				0	10	5	0	0	0	0	0	0	0.71
82	Kapkot	Jagthana	704				0	10	15	0	0	0	0	0	0	2.14
83	Kapkot	Jarti	935				0	10	10	0	0	0	0	0	0	1.43
84	Kapkot	Kapkot	1956				0	10	10	6	7	8	0	0	0	4.43
85	Kapkot	Karmi	2223				0	10	5	6	7	0	0	0	0	2.57
86	Kapkot	Kharkana Toli	761				0	10	5	0	0	0	0	0	0	0.71
87	Kapkot	Lahur	510		8		8	10	5	0	0	0	0	0	0	0.71
88	Kapkot	Lili	670				0	10	5	6	0	0	0	0	0	1.57
89	Kapkot	Liti	1630				0	10	15	6	7	0	0	0	0	4
90	Kapkot	Mahruri	539				0	10	5	0	0	0	0	0	0	0.71
91	Kapkot	Majkhet	506				0	10	5	6	7	8	0	0	0	3.71
92	Kapkot	Malladesh	618	10			10	10	5	0	0	0	0	0	0	0.71
93	Kapkot	Nakuri	1030				0	10	5	6	0	0	0	0	0	1.57
94	Kapkot	Namti Chita Bagar	532				0	10	10	6	7	0	0	0	0	3.29
95	Kapkot	Nankanyalikot	1280				0	10	15	6	7	8	0	0	0	5.14
96	Kapkot	Pachar	522				0	10	5	0	0	0	0	0	0	0.71
97	Kapkot	Pothing	2015				0	10	20	12	0	0	0	0	0	4.57
98	Kapkot	Purkuni	953				0	10	5	6	0	0	0	0	0	1.57
99	Kapkot	Ramari	518		8		8	10	10	0	0	0	0	0	0	1.43

Perspective Plan of Bageshwar District - 2021

Sl. No.	Block Name	Village Name	POST AND TELEGRAPH FACILITIES					FINANCIAL INSTITUTIONS AND COOPERATIVE SOCIETIES							GRAND SCORE
			Post & Tele. Facility	Post Office	Tele-graph Office	P & T Office	TOTAL	Bank Facility	Comm Banks	Coop. Banks	Credit Society	AC Society	NAC Society	TOTAL	
1	2	3	35	36	37	38	39	40	41	42	43	44	45	46	47
1	Bageshwar	Anarsa	14	0	0	0	3.5	14	0	0	16	0	0	6	5.26
2	Bageshwar	Bamrari	7	7	0	0	3.5	7	8	0	16	0	0	6.2	5.21
3	Bageshwar	Bheru	7	0	0	0	1.75	14	0	0	16	0	0	6	1.53
4	Bageshwar	Bijori Jhal	7	7	0	0	3.5	7	8	0	16	0	0	6.2	3.83
5	Bageshwar	Dhapti	7	7	0	0	3.5	14	0	0	16	0	0	6	1.70
6	Bageshwar	Harwar	7	7	0	0	3.5	14	0	0	16	0	0	6	3.80
7	Bageshwar	Jethai	7	7	0	0	3.5	14	0	0	16	0	0	6	4.97
8	Bageshwar	Jolkanda	7	7	0	0	3.5	14	0	0	16	0	0	6	3.37
9	Bageshwar	Kande Kanyal	7	7	0	0	3.5	7	8	8	16	0	0	7.8	5.22
10	Bageshwar	Kathayatbara	7	0	0	0	1.75	14	0	0	16	0	0	6	3.27
11	Bageshwar	Khantoli	7	7	0	0	3.5	14	0	0	16	0	0	6	5.32
12	Bageshwar	Kholi	14	0	0	0	3.5	14	0	0	16	0	0	6	5.18
13	Bageshwar	Kunera	14	0	0	0	3.5	14	0	0	16	0	0	6	5.23
14	Bageshwar	Majiyakhet	14	0	0	0	3.5	14	0	0	16	0	0	6	3.51
15	Bageshwar	Mal Suna	7	7	0	0	3.5	14	0	0	16	0	0	6	1.85
16	Bageshwar	Mandalsea	7	7	0	0	3.5	14	0	0	16	0	0	6	3.92
17	Bageshwar	Mankot	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
18	Bageshwar	Musoi Chak Josh	14	0	0	0	3.5	14	0	0	16	0	0	6	1.58
19	Bageshwar	Pandra Pali	7	7	0	0	3.5	14	0	0	16	0	0	6	3.61
20	Bageshwar	Pang Chora	14	0	0	0	3.5	14	0	0	16	0	0	6	3.57
21	Bageshwar	Simkuna	7	7	0	0	3.5	14	0	0	16	0	0	6	3.49
22	Garur Baijnath	Atartoli Pachami	7	0	0	0	1.75	14	0	0	16	0	0	6	1.55
23	Garur Baijnath	Bhakunkhola	7	0	0	0	1.75	14	0	0	16	0	0	6	1.41
24	Garur Baijnath	Bhatriya	14	0	0	0	3.5	14	0	0	16	0	0	6	3.49
25	Garur Baijnath	Bhil Kot	7	7	0	0	3.5	14	0	0	16	0	0	6	3.37
26	Garur Baijnath	Charson	14	0	0	0	3.5	14	0	0	16	0	0	6	3.49
27	Garur Baijnath	Chhatiya	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
28	Garur Baijnath	Darshani	14	0	0	0	3.5	14	0	0	16	0	0	6	3.25
29	Garur Baijnath	Dhyonai	7	7	0	0	3.5	14	0	0	16	0	0	6	1.90
30	Garur Baijnath	Fulwari Gunth Ba	7	7	6	6	6.5	14	0	0	16	0	0	6	4.52
31	Garur Baijnath	Galai	7	0	0	0	1.75	7	8	8	8	7	0	7.6	5.25
32	Garur Baijnath	Gani Gaon	14	0	0	0	3.5	14	0	0	16	0	0	6	3.49

Perspective Plan of Bageshwar District - 2021

SI. No.	Block Name	Village Name	POST AND TELEGRAPH FACILITIES					FINANCIAL INSTITUTIONS AND COOPERATIVE SOCIETIES							GRAND SCORE
			Post & Tele. Facility	Post Office	Tele-graph Office	P & T Office	TOTAL	Bank Facility	Comm Banks	Coop. Banks	Credit Society	AC Society	NAC Society	TOTAL	
1	2	3	35	36	37	38	39	40	41	42	43	44	45	46	47
33	Garur Baijnath	Garser	7	0	0	0	1.75	14	0	0	16	0	0	6	4.18
34	Garur Baijnath	Gheti	7	0	0	0	1.75	14	0	0	16	0	0	6	3.29
35	Garur Baijnath	Gwar Pajena	7	0	0	0	1.75	14	0	0	16	0	0	6	3.20
36	Garur Baijnath	Hawil Kulwan	7	0	0	0	1.75	14	0	0	16	0	0	6	3.08
37	Garur Baijnath	Jakhera	7	7	0	0	3.5	14	0	0	16	0	0	6	3.80
38	Garur Baijnath	Jyuna State	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
39	Garur Baijnath	Kansyari	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
40	Garur Baijnath	Kausani State	7	7	6	6	6.5	7	8	0	16	0	0	6.2	3.83
41	Garur Baijnath	Kulaun	7	7	0	0	3.5	14	0	0	16	0	0	6	3.37
42	Garur Baijnath	Lakhani	7	7	0	0	3.5	14	0	0	16	0	0	6	3.37
43	Garur Baijnath	Lamchula	7	7	0	0	3.5	14	0	0	16	0	0	6	3.65
44	Garur Baijnath	Laubaj	7	7	0	0	3.5	14	0	0	16	0	0	6	3.47
45	Garur Baijnath	Maigari State	7	7	0	0	3.5	14	0	0	16	0	0	6	3.51
46	Garur Baijnath	Maj Kot	14	0	0	0	3.5	14	0	0	8	7	0	5.8	3.34
47	Garur Baijnath	Matena	7	7	0	0	3.5	14	0	0	16	0	0	6	5.04
48	Garur Baijnath	Mela Dungri	7	0	0	0	1.75	14	0	0	16	0	0	6	3.08
49	Garur Baijnath	Munyura Mafi	7	7	0	0	3.5	7	8	0	16	0	0	6.2	1.97
50	Garur Baijnath	Naughar	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
51	Garur Baijnath	Paye	7	7	6	0	5	7	0	8	8	7	6	7.2	3.82
52	Garur Baijnath	Pinglon	7	7	0	0	3.5	14	0	0	16	0	0	6	3.49
53	Garur Baijnath	Purara	7	0	0	0	1.75	14	0	0	16	0	0	6	3.58
54	Garur Baijnath	Silli	7	0	0	0	1.75	14	0	0	16	0	0	6	3.24
55	Garur Baijnath	Simkhet	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
56	Garur Baijnath	Sirkot	7	7	0	0	3.5	14	0	0	16	0	0	6	3.90
57	Garur Baijnath	Urkhuli	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
58	Garur Baijnath	Wajyula	7	7	0	0	3.5	7	8	0	16	0	0	6.2	5.95
59	Kapkot	Aithar	14	0	0	0	3.5	14	0	0	16	0	0	6	3.51
60	Kapkot	Ason	7	7	0	0	3.5	14	0	0	8	7	0	5.8	5.50
61	Kapkot	Badiyakot	7	7	0	0	3.5	14	0	0	16	0	0	6	3.25
62	Kapkot	Baghar	7	7	0	0	3.5	14	0	0	16	0	0	6	3.87
63	Kapkot	Baisani	7	7	0	0	3.5	14	0	0	16	0	0	6	1.97
64	Kapkot	Bamsera	14	0	0	0	3.5	14	0	0	16	0	0	6	3.25
65	Kapkot	Baret	7	7	0	0	3.5	14	0	0	16	0	0	6	4.53
66	Kapkot	Bari Panyali	14	0	0	0	3.5	14	0	0	16	0	0	6	3.61

Perspective Plan of Bageshwar District - 2021

Sl. No.	Block Name	Village Name	POST AND TELEGRAPH FACILITIES					FINANCIAL INSTITUTIONS AND COOPERATIVE SOCIETIES							GRAND SCORE
			Post & Tele. Facility	Post Office	Tele-graph Office	P& T Office	TOTAL	Bank Facility	Comm Banks	Coop. Banks	Credit Society	AC Society	NAC Society	TOTAL	
1	2	3	35	36	37	38	39	40	41	42	43	44	45	46	47
67	Kapkot	Beira Majhera	7	7	0	0	3.5	14	0	0	16	0	0	6	1.85
68	Kapkot	Bhanar	7	7	0	0	3.5	14	0	0	16	0	0	6	3.93
69	Kapkot	Bhayu Mai	14	0	0	0	3.5	14	0	0	16	0	0	6	1.70
70	Kapkot	Hhurauni	14	0	0	0	3.5	14	0	0	16	0	0	6	3.49
71	Kapkot	Chachai	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
72	Kapkot	Chalkana	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
73	Kapkot	Chaura	14	0	0	0	3.5	14	0	0	16	0	0	6	3.51
74	Kapkot	Cheera Bagar	14	0	0	0	3.5	14	0	0	16	0	0	6	1.58
75	Kapkot	Dayali Kurauli	14	0	0	0	3.5	14	0	0	16	0	0	6	1.58
76	Kapkot	Dhamigaon Kirai	14	0	0	0	3.5	14	0	0	16	0	0	6	1.58
77	Kapkot	Dulam	14	0	0	0	3.5	14	0	0	16	0	0	6	5.16
78	Kapkot	Farsali Palli	14	0	0	0	3.5	14	0	0	16	0	0	6	3.68
79	Kapkot	Farsali Walli	14	0	0	0	3.5	14	0	0	16	0	0	6	3.87
80	Kapkot	Gadera	7	7	0	0	3.5	14	0	0	16	0	0	6	3.51
81	Kapkot	Gasi	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
82	Kapkot	Gogina	14	0	0	0	3.5	14	0	0	16	0	0	6	3.43
83	Kapkot	Jagthana	7	7	0	0	3.5	14	0	0	16	0	0	6	3.61
84	Kapkot	Jarti	7	7	0	0	3.5	14	0	0	16	0	0	6	3.49
85	Kapkot	Kapkot	7	7	6	6	6.5	7	8	0	16	0	0	6.2	4.79
86	Kapkot	Karmi	7	7	0	0	3.5	14	0	0	8	7	6	7	4.04
87	Kapkot	Kharkana Toli	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
88	Kapkot	Lahur	7	7	0	0	3.5	14	0	0	16	0	0	6	4.74
89	Kapkot	Lili	7	7	0	0	3.5	14	0	0	16	0	0	6	3.51
90	Kapkot	Liti	7	7	0	0	3.5	14	0	0	16	0	0	6	3.92
91	Kapkot	Mahruri	7	7	0	0	3.5	14	0	0	16	0	0	6	3.37
92	Kapkot	Majkhet	14	0	0	0	3.5	14	0	0	16	0	0	6	3.93
93	Kapkot	Malladesh	14	0	0	0	3.5	14	0	0	16	0	0	6	5.04
94	Kapkot	Nakuri	7	7	0	0	3.5	7	8	0	8	7	0	6	3.58
95	Kapkot	Namti Chita Bagar	7	7	0	0	3.5	14	0	0	16	0	0	6	3.87
96	Kapkot	Nankanyalikot	7	7	0	0	3.5	14	0	0	16	0	0	6	4.26
97	Kapkot	Pachar	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
98	Kapkot	Pothing	7	7	0	0	3.5	14	0	0	16	0	0	6	4.01
99	Kapkot	Purkuni	7	7	0	0	3.5	14	0	0	16	0	0	6	3.58
99	Kapkot	Ramari	14	0	0	0	3.5	14	0	0	16	0	0	6	4.82

Perspective Plan of Bageshwar District - 2021

Sl. No.	Block Name	Village Name	POST AND TELEGRAPH FACILITIES					FINANCIAL INSTITUTIONS AND COOPERATIVE SOCIETIES							GRAND SCORE
			Post & Tele. Facility	Post Office	Tele-graph Office	P& T Office	TOTAL	Bank Facility	Comm Banks	Coop. Banks	Credit Society	AC Society	NAC Society	TOTAL	
1	2	3	35	36	37	38	39	40	41	42	43	44	45	46	47
100	Kapkot	Sama	7	7	6	6	6.5	14	0	0	16	0	0	6	6.35
101	Kapkot	Simgari	14	0	0	0	3.5	14	0	0	16	0	0	6	3.75
102	Kapkot	Sorag	7	7	0	0	3.5	7	16	0	16	0	0	7.8	4.00
103	Kapkot	Suding	14	0	0	0	3.5	14	0	0	16	0	0	6	3.37
104	Kapkot	Sumgarh	14	0	0	0	3.5	14	0	0	16	0	0	6	5.04
105	Kapkot	Supi	7	7	0	0	3.5	14	0	0	16	0	0	6	3.86
106	Kapkot	Toli	14	0	0	0	3.5	14	0	0	16	0	0	6	4.47
107	Kapkot	Udiyar	14	0	0	0	3.5	14	0	0	16	0	0	6	4.35
108	Kapkot	Wachham	14	0	0	0	3.5	7	16	0	16	0	0	7.8	3.97

FINAL COMPOSITE INDICES OF VILLAGES

Sl. No	Block Name	Village Name	Total Population (>500)	Weightage Score						Max=10 Grand Composite Score
				Village connectivity (Kms)	Administrative Status (Gram Panchayats)	Schools (All educational facilities)	Hospitals (All Health Facilities)	Post and Telegraph	Financial Institutions (All Banks, Co-operative Societies)	
1.	Kapkot	Sama	887	8	10	6.29	1.31	6.5	6	6.35
2.	Garur Baijnath	Wajyula	1290	10	10	4.43	1.56	3.5	6.2	5.95
3.	Kapkot	Ason	742	10	10	3.71	0	3.5	5.8	5.50
4.	Bageshwar	Khantoli	510	10	10	0.71	1.69	3.5	6	5.32
5.	Bageshwar	Anarsa	762	10	10	1.43	0.63	3.5	6	5.26
6.	Garur Baijnath	Galai	526	10	10	1.57	0.56	1.75	7.6	5.25
7.	Bageshwar	Kunera	655	10	10	1.86	0	3.5	6	5.23
8.	Bageshwar	Kande Kanyal	662	0	10	6.29	3.75	3.5	7.8	5.22
9.	Bageshwar	Bamrari	696	10	10	1.57	0	3.5	6.2	5.21
10.	Bageshwar	Kholi	603	10	10	1.57	0	3.5	6	5.18
11.	Kapkot	Dulam	577	10	10	1.43	0	3.5	6	5.16
12.	Garur Baijnath	Matena	579	10	10	0.71	0	3.5	6	5.04
13.	Kapkot	Malladesh	618	10	10	0.71	0	3.5	6	5.04
14.	Kapkot	Sumgarh	913	10	10	0.71	0	3.5	6	5.04
15.	Bageshwar	Jethai	701	8	10	2.29	0	3.5	6	4.97
16.	Kapkot	Ramari	518	8	10	1.43	0	3.5	6	4.82
17.	Kapkot	Kapkot	1956	0	10	4.43	1.63	6.5	6.2	4.79
18.	Kapkot	Lahur	510	8	10	0.71	0.25	3.5	6	4.74
19.	Kapkot	Beret	1387	0	10	6.57	1.13	3.5	6	4.53
20.	Garur Baijnath	Fulwari Gunth Ba	650	0	10	0	4.63	6.5	6	4.52
21.	Kapkot	Toli	808	5	10	2.29	0	3.5	6	4.47
22.	Kapkot	Udiyar	550	5	10	1.57	0	3.5	6	4.35
23.	Kapkot	Nankanyalikot	1280	0	10	5.14	0.94	3.5	6	4.26
24.	Garur Baijnath	Garser	595	0	10	3.71	3.63	1.75	6	4.18
25.	Kapkot	Karmi	2223	0	10	2.57	1.19	3.5	7	4.04
26.	Kapkot	Pothing	2015	0	10	4.57	0	3.5	6	4.01
27.	Kapkot	Sorag	812	0	10	2.29	0.38	3.5	7.8	4.00
28.	Kapkot	Wachham	1018	0	10	2.14	0.38	3.5	7.8	3.97
29.	Kapkot	Bhanar	1775	0	10	3.71	0.38	3.5	6	3.93
30.	Kapkot	Majkhet	506	0	10	3.71	0.38	3.5	6	3.93
31.	Bageshwar	Mandalsea	3450	0	10	4	0	3.5	6	3.92

Sl. No	Block Name	Village Name	Total Population (>500)	Weightage Score						Grand Composite Score
				Village connectivity (Kms)	Administrative Status (Gram Panchayats)	Schools (All educational facilities)	Hospitals (All Health Facilities)	Post and Telegraph	Financial Institutions (All Banks, Co-operative Societies)	
32	Kapkot	Liti	1630	0	10	4	0	3.5	6	3.92
33	Garur Baijnath	Sirkot	1175	0	10	2.57	1.31	3.5	6	3.90
34	Kapkot	Baghar	1673	0	10	3.71	0	3.5	6	3.87
35	Kapkot	Farsali Walli	818	0	10	3.71	0	3.5	6	3.87
36	Kapkot	Namti Chita Bagar	532	0	10	3.29	0.44	3.5	6	3.87
37	Kapkot	Supi	1405	0	10	3.29	0.38	3.5	6	3.86
38	Bageshwar	Bijori jhal	858	0	10	3	0.25	3.5	6.2	3.83
39	Garur Baijnath	Kausani state	2626	0		6.71	3.56	6.5	6.2	3.83
40	Garur Baijnath	Paye	589	0	10	0.71	0	5	7.2	3.82
41	Bageshwar	Harwar	564	0	10	3.29	0	3.5	6	3.80
42	Garur Baijnath	Jakhera	698	0	10	3.29	0	3.5	6	3.80
43	Kapkot	Simgari	772	0	10	3	0	3.5	6	3.75
44	Kapkot	Farsali Palli	727	0	10	0.71	1.88	3.5	6	3.68
45	Garur Baijnath	Lamchula	657	0	10	1.43	0.94	3.5	6	3.65
46	Bageshwar	Pandra Pali	714	0	10	1.43	0.75	3.5	6	3.61
47	Kapkot	Bari Panyali	693	0	10	2.14	0	3.5	6	3.61
48	Kapkot	Jagthana	704	0	10	2.14	0	3.5	6	3.61
49	Garur Baijnath	purara	850	0	10	3.71	0	1.75	6	3.58
50	Kapkot	Nakuri	1030	0	10	1.57	0.38	3.5	6	3.58
51	Kapkot	Purkuni	953	0	10	1.57	0.38	3.5	6	3.58
52	Bageshwar	Pang Chora	804	0	10	0.71	1.19	3.5	6	3.57
53	Bageshwar	Majiyakhet	839	0	10	1.57	0	3.5	6	3.51
54	Garur Baijnath	Maigari State	1366	0	10	1.57	0	3.5	6	3.51
55	Kapkot	Aithar	846	0	10	1.57	0	3.5	6	3.51
56	Kapkot	Cheera Bagar	632	0	10	1.57	0	3.5	6	3.51
57	Kapkot	Gadera	679	0	10	1.57	0	3.5	6	3.51
58	Kapkot	Lilli	670	0	10	1.57	0	3.5	6	3.51
59	Bageshwar	Simkuna	1287	0	10	1.43	0	3.5	6	3.49
60	Garur Baijnath	Bhatriya	1040	0	10	1.43	0	3.5	6	3.49
61	Garur Baijnath	Charson	876	0	10	1.43	0	3.5	6	3.49
62	Garur Baijnath	Gani Gaon	631	0	10	1.43	0	3.5	6	3.49
63	Garur Baijnath	Pinglon	1003	0	10	0.71	0.75	3.5	6	3.49

Sl. No	Block Name	Village Name	Total Population (>500)	Weightage Score						Grand Composite Score
				Village connectivity (Kms)	Administrative Status (Gram Panchayats)	Schools (All educational facilities)	Hospitals (All Health Facilities)	Post and Telegraph	Financial Institutions (All Banks, Co-operative Societies)	
64	Kapkot	Chachai	1222	0	10	1.43	0	3.5	6	3.49
65	Kapkot	Jarti	935	0	10	1.43	0	3.5	6	3.49
66	Garur Baijnath	Laubaj	696	0	10	0.71	0.63	3.5	6	3.47
67	Kapkot	Gogina	907	0	10	0.71	0.38	3.5	6	3.43
68	Bageshwar	Jolkanda	633	0	10	0.71	0	3.5	6	3.37
69	Bageshwar	Mankot	552	0	10	0.71	0	3.5	6	3.37
70	Garur Baijnath	Bhilkot	552	0	10	0.71	0	3.5	6	3.37
71	Garur Baijnath	Chhatiya	629	0	10	0.71	0	3.5	6	3.37
72	Garur Baijnath	Jyuna state	539	0	10	0.71	0	3.5	6	3.37
73	Garur Baijnath	Kansyari	988	0	10	0.71	0	3.5	6	3.37
74	Garur Baijnath	Kulaun	1140	0	10	0.71	0	3.5	6	3.37
75	Garur Baijnath	Lakhani	1297	0	10	0.71	0	3.5	6	3.37
76	Garur Baijnath	Naughar	619	0	10	0.71	0	3.5	6	3.37
77	Garur Baijnath	Simkhet	564	0	10	0.71	0	3.5	6	3.37
78	Garur Baijnath	Urkhuli	533	0	10	0.71	0	3.5	6	3.37
79	Kapkot	Chalkana	668	0	10	0.71	0	3.5	6	3.37
80	Kapkot	Chaura	617	0	10	0.71	0	3.5	6	3.37
81	Kapkot	Gasi	626	0	10	0.71	0	3.5	6	3.37
82	Kapkot	Kharkana Toli	761	0	10	0.71	0	3.5	6	3.37
83	Kapkot	Mahruri	539	0	10	0.71	0	3.5	6	3.37
84	Kapkot	Pachar	522	0	10	0.71	0	3.5	6	3.37
85	Kapkot	Suding	520	0	10	0.71	0	3.5	6	3.37
86	Garur Baijnath	Majkot	1133	0	10	0.71	0	3.5	5.8	3.34
87	Garur Baijnath	Gheti	649	0	10	0.71	1.25	1.75	6	3.29
88	Bageshwar	Kathayatbara	2482	0	10	1.86	0	1.75	6	3.27
89	Garur Baijnath	Darshani	633	0	10	0	0	3.5	6	3.25
90	Kapkot	Badiyakot	623	0	10	0	0	3.5	6	3.25
91	Kapkot	Bamsera	818	0	10	0	0	3.5	6	3.25
92	Garur Baijnath	Silli	777	0	10	0.71	1	1.75	6	3.24
93	Garur Baijnath	Gwar Pajena	916	0	10	1.43	0	1.75	6	3.20
94	Garur Baijnath	Hawil kulwan	546	0	10	0.71	0	1.75	6	3.08
95	Garur Baijnath	Mela Dungri	606	0	10	0.71	0	1.75	6	3.08

Sl. No	Block Name	Village Name	Total Population (>500)	Weightage Score						Grand Composite Score
				Village connectivity (Kms)	Administrative Status (Gram Panchayats)	Schools (All educational facilities)	Hospitals (All Health Facilities)	Post and Telegraph	Financial Institutions (All Banks, Co-operative Societies)	
96	Garur Baijnath	Munyura Mafi	1825	0		2.14	0	3.5	6.2	1.97
97	Kapkot	Baisani	542	0		2.29	0	3.5	6	1.97
98	Garur Baijnath	Dhyonai	786	0		0.71	1.19	3.5	6	1.90
99	Bageshwar	Mal Suna	563	0		1.57	0	3.5	6	1.85
100	Kapkot	Beira Majher	940	0		1.57	0	3.5	6	1.85
101	Bageshwar	Dhapti	542	0		0.71	0	3.5	6	1.70
102	Kapkot	Bhayumai Hurauni	574	0		0.71	0	3.5	6	1.70
103	Bageshwar	Musoli Chak Josh	550	0		0	0	3.5	6	1.58
104	Kapkot	Dayali kurauli	582	0		0	0	3.5	6	1.58
105	Kapkot	Dhamigaon Kirai	680	0		0	0	3.5	6	1.58
106	Garur Baijnath	Atartoli Pachami	787	0		1.57	0	1.75	6	1.55
107	Bageshwar	Bheru	563	0		1.43	0	1.75	6	1.53
108	Garur Baijnath	Bhakunkhola	620	0		0.71	0	1.75	6	1.41

References

- 1) Data/Information received by questionnaires from different Departments.
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- 8) Gazette notification for modification of Bageshwar' villages.
- 9) Van Panchayat –Rule 2005.
- 10) Govt. order. 29 October 2003, Panchayati Raj Deptt. 622/ PGA from scheduled 92 (25) / 2003, under Utter Pradesh Kshetra Panchayat and Zila Panchayat Act-1961. (14 subjects are transferred to Panchayats).
- 11) Data/Information received by internet facility.