# DEVELOPMENT PLAN CHOPAL PLANNING AREA -2041







TOWN AND COUNTRY PLANNING DEPARTMENT
GOVERNMENT OF HIMACHAL PRADESH

#### **FOREWORD**

Chopal is situated along the Shimla-Nerwa Tiuni Road and is a hilltop town 110 km away from Shimla and is surrounded by orchards, agriculture fields and thick forest. This town is famous for production of high-quality apples which are consumed all around India and exported internationally. Apple growing areas in Chopal include Chambi, Tharoch, Poran, Pauria, Peontra Valley, Bamta, Rinjat, Khaddar, Matal, Chanju (Chopal), Kasham, Rushlah, Satota (Halau, Shalan), Dewat, Kakhrona, Shilikyan, Shantha, Sunarli, Maraog, Bigraoli, Jhina, and Sarain.

The Chopal town is surrounded by thick Deodar forests mainly in the eastern and northern parts. The beautiful forested Churdhar peak lies towards south-west direction from the town and enhances the beauty of Chopal valley. Churdhar peak is among the most important tourist destination and is regularly trekked by pilgrims. Over past twothree decades, the town has transformed from traditional stone and wooden houses with slate roofs to RCC structures.

Chopal Planning Area includes the area of Nagar Panchayat Chopal and five other complete Revenue villages i.e., Chopal, Satka, Majhotly, Bodhna & Jaigarh. To ensure planned development and effective implementation of the HPTCP Act, 1977 in Chopal Town, the H.P. Town & Country Planning Act, 1977 was extended to Chopal Planning Area vide Notification No. TCP-F (5)-9/2013, dated 14.01.2014. The Existing land use of Chopal planning area was prepared and adopted vide Notification No.HIM/TP/PJT/Chopal PA/98/Vol-I/16820 dated 23.11.2016.

The Draft Development Plan of Chopal Planning Area has been prepared for base population of 3076 persons as per census 2011 and same is likely to increase to 6000 by 2041, out of which 80% is likely to reside within urbanised limit of the planning area. Keeping in view the requirement for residential, commercial, industrial, public/semipublic, parks/open spaces, traffic/transportation and Tourism etc. additional land shall be required from present 40.11 ha. to 206.19 ha. by the year 2041.

The plan has been prepared best capturing the present development trends and the projections of the development activities by the year 2041. After its approval by the State Govt., it is expected that this Development Plan will play an important role in ensuring the planned development of the Chopal Planning Area.

Place: Shimla Director

Dated: Town & Country Planning Deptt.

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#### 1 INTRODUCTION

Chopal Town is a growing urban center in Tehsil Chopal of Shimla District. It is situated on MDR-74 Sainj-Chopal-Nerwa-Shallu Road, and is about 110 Kms away from Shimla. Chopal town is surrounded by orchards, agricultural land, and thick forest. It has a panoramic view of forested mountains all around. Over past two decades, a lot of ribbon development has taken place along the Sainj-Chopal-Nerwa road throughout the Planning Area. Thus, in order to regulate the potential development of Chopal Planning Area, a Development Plan for the year, 2041 is required to be prepared.

Chopal like other important towns of Shimla district is famous for production of high-quality apples which are exported from India to many countries. There are many apple-growing belts in Chopal such as Tharoch, Poran, Pauria, Peontra Valley, Bamta, Rinjat, Khaddar, Matal, Chanju (Chopal), Kashah, Rushlah etc. Besides apples, it is also famous for tourism.



Figure 1.1- Chopal view

To prepare a technically viable document, acceptable to the masses, a number of deliberations and consultation meetings with the public, grass root functionaries of the planning area, public representatives and NGOs have been organized at Chopal to obtain their opinions on issue and problems of the area and thus finding suitable and sustainable solutions in order to tap the future potentials. To examine the quantitative and qualitative aspects of various land uses, development activities, problems and potentials of the Chopal Planning Area both, primary and secondary sources of data have been

tapped which form the basis for working out future requirements of space for various activities and proportionate infrastructure both physical and socio-economic.

The Development Plan envisaged implementation of the Plan through the Local Bodies and line departments. The provisions of the Development Plan have been envisaged to be implemented through limited acquisition of land for roads and public /semi-public uses. To ensure social acceptability development proposals have been worked out as per changing requirements and aspirations of local stakeholders. The plan has been prepared based on the Cadastral base map and findings of socio-economic surveys and studies. The Development Plan aims for planned and regulated development with the objectives of Zoning of land use, provision of infrastructure, preservation of the character of the landscape, areas of natural beauty, renewal of areas in need of regeneration, improvement, and extension of recreational facilities, location, and future development pattern. This Development Plan is a strategic policy document setting out an overall strategy for the proper planning and sustainable development of Chopal town for the plan period up to 2041.

As the Development Plan is a document of people, community, Government, and all democratic institutions including Local Bodies, the same is, therefore, required to come forward for its implementation. Execution of this Development Plan has to be ensured by the Land Pooling and Re-constitution mechanism by coordinated efforts of the land owners, Development Authority, Revenue Department, Panchayats, and Infrastructural Departments. Besides landowners, the Nagar Panchayat and Gram Panchayats shall be responsible for the creation of serviced land. Chopal being a potential tourist and multifunctional town, financing of the Plan is required to be geared by the Urban Local body and the line Departments by raising resources from the betterment levies on development pursuits. The development that has come up along the Sainj-Chopal-Nerwa road and other roads is required to be suitably charged. The role of this Development Plan is to ensure orderly and progressive development of both rural and urban areas in the Chopal Planning Area to secure a proper balance between the competing demands for the use of land.

#### 2 BACKGROUND:

#### 2.1 LOCATION

Chopal Planning Area is situated in Chopal Tehsil of Shimla District along MDR 74 Sainj-Chopal-Nerwa-Shallu Road and is surrounded by apple orchards, agricultural land, and thick forests. Geographically, it is located 30°-56′ North and 77°-58′ East at an altitude of 2550 metre above the mean sea level. Chopal lies in the subtropical temperate zone and has a rich treasure of medicinal plants. It is a remote area of the district Shimla, located in the south eastern part of Himachal Pradesh, which has great archaeological, ecological, religious, spiritual, and mythological significance. Chopal is bounded by Shantha and Tharoch in the North and the East by Kharu in the South by Nauran and in the West by Jungle Dhania.

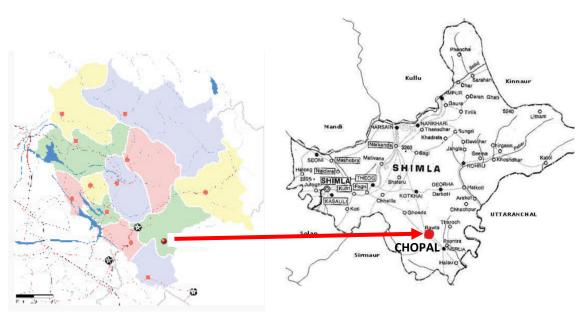


Figure 2.1.1 Location of Chopal

#### 2.2 REGIONAL SETTING

No settlement can be viewed in isolation for the Development Plan as it is an integral part of its region. To ensure the sustainable development of regional space, it is imperative to consider the planning at Regional Level. Chopal is surrounded by Jubbal and Kotkhai to the north, south-west by Sirmaur, east and south east by Nerwa, and North West lies Theog tehsil.

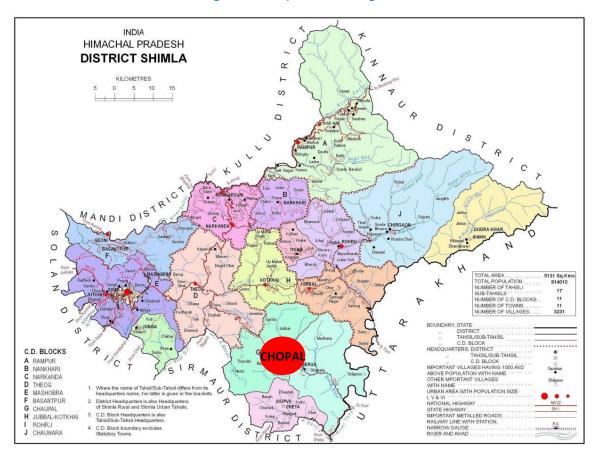


Figure 2.2- Chopal Tehsil as Region

(Source - Census 2011)

The Chopal region extends up to Dasholi, Bamta, and Ranvi in North, Deot, Belag, and Batewri in East, Sarkali, Chauna, Dhotali, and Khadar in South and Pulbahal, Dhamla, and Sulhah in West.

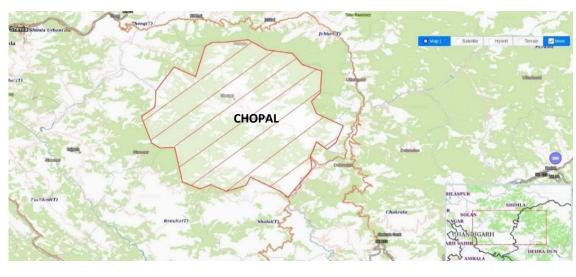


Figure 2.3- Chopal Region

(Source - Bhuvan)

Though Chopal is not on the main tourist circuit, but it is frequently visited by tourists due to its commanding view and scenic environs. Chopal in itself may not be called a tourist station but it acts as a base for nearby tourist destinations like Choordhar Peak, Maa Hateshwari Temple, and Mahasu Devta Temple Hanol.

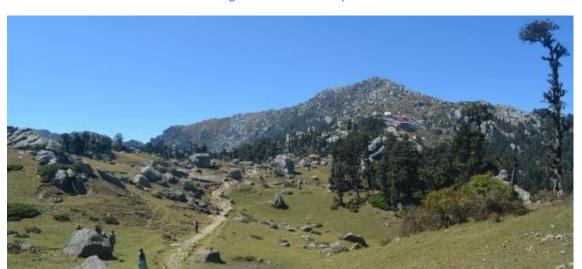


Figure 2.4- Choordhar peak

People from nearby villages visit Chopal for availing health, educational, commercial and other facilities and also bring various produces such as vegetables, fruits, milk, etc. to meet the growing requirements of Chopal town. Keeping this in view, effective integrated regional planning is required to meet these challenges and regulate the un-precedent growth of this regional centre in a planned way. Thus, Chopal caters to multiple facilities like Administrative, offical, Educational, Health, etc. to the inhabitants of surrounding areas and is attaining the character of a Regional Town. Chopal as an important administrative centre of regional importance has several activities like -

- Civil Hospital
- Government Degree College
- D.F.O office.
- Sub-Divisional Magistrate Court
- Executive Engineer H.P.S.E.B Ltd
- Sub Judge Office
- Panchayat Samity Office
- Executive Engineer H.P.P.W.D office

Agriculture and horticulture are the mainstays of the economy of this region. The geoclimatic features of this region are very much congenial for the development of commercial farming and horticultural pursuits. In recent years, commercial farming has become a prime concern in the economy of this region.

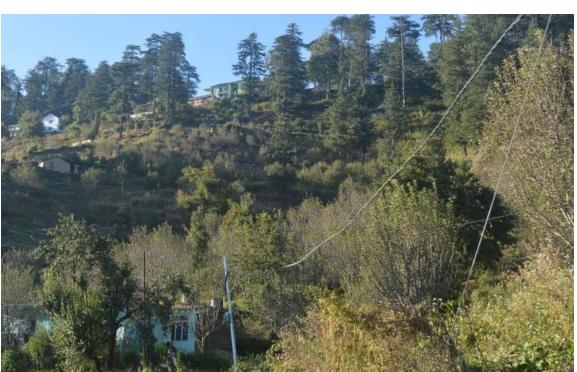


Figure 2.5- Apple Farms in Chopal

#### 2.3 CONNECTIVITY

Chopal is linked by roads i.e. MDR-74 Sainj-Chopal-Nerwa-Shallu road to the main Theog - Kotkhai Hatkoti road and on the other side to Uttrakhand (Tiuni). The other road through Chopal is Jhiknipul road leading to Nerwa. Chopal Town forms an important link in connecting the two major capital cities of Shimla in Himachal Pradesh and Dehradun in Uttrakhand.

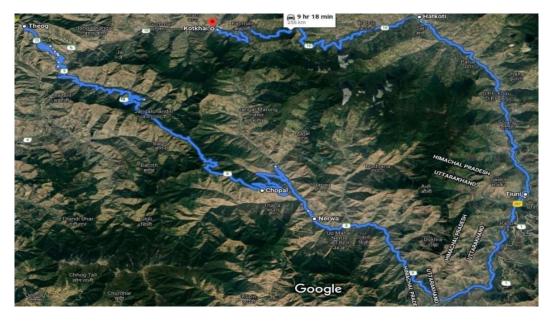


Figure 2.6- Chopal Regional Linkages

#### 2.4 HISTORY OF DEVELOPMENT

#### 2.4.1 ORIGIN OF CHOPAL

It is not exactly known when the foundations of the village was laid, or how it derived its name. According to the elders, about four centuries back, a few families of Thakurs used to live here. The ruler of the Jubbal state defeated the overlord and annexed this territory. At one time this remained the capital of the state and the ruler used to live here during summer. A big fort existed here till four decades back. During wazir Sher Singh's time, there was a fire and the fort was burnt down. A temple of the Shirgul deity has been erected at the site of the fort. So far the name of the village is considered it is believed that the word 'Chopal' is derived from the Hindi term 'Choupal', meaning a meeting place or a somewhat flat portion of land. The upper portion of the village is somewhat flat in appearance; therefore, this place seems to have acquired this name.

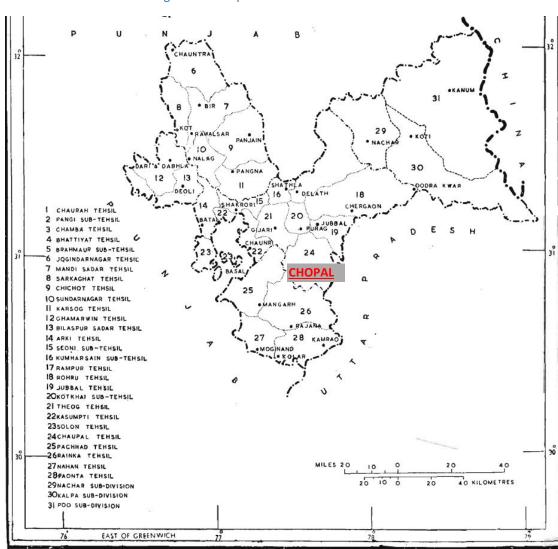


Figure 2.7- Chopal Tehsil in Mahasu State 1963

(Source- CENSUS OF INDIA 1961)

The Chopal valley before the formation of Himachal Pradesh formed a part of the erstwhile Jubbal State. The tehsil headquarter of Chopal Tehsil is located here. Despite being a village of importance, and even though the area claims rich forests, Chopal until 1962 had the distinction of being the only tehsil headquarter in Mahasu district not yet connected by vehicular road which was only till Deha.

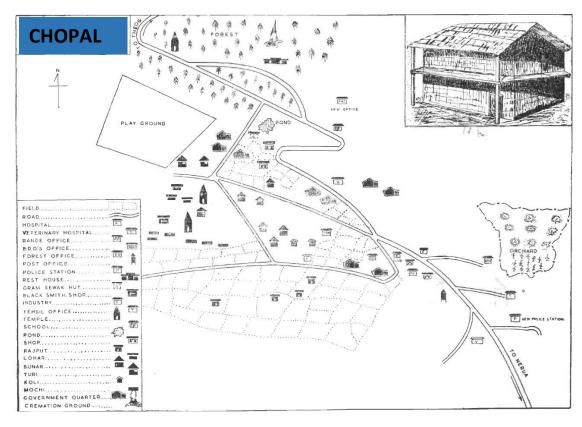


Figure 2.8- Chopal Village 1961

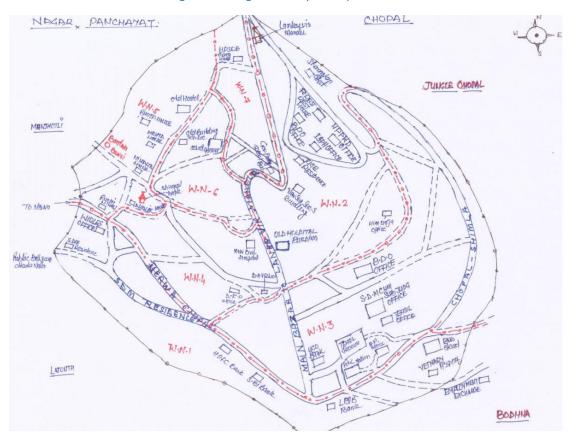
(Source - CENSUS OF INDIA 1961)

#### 2.4.2 FORMATION OF NAGAR PANCHAYAT CHOPAL

Nagar Panchayat Chopal was established vide Notification No. LSG-A(9)-21/77 dated 13-06-1984 by the Government of Himachal Pradesh. But until 1991 there were only 2 wards as per Census of India 1991. With 577 households the population of Nagar Panchayat Chopal as per the census 2011 was 1851 persons, out of which 1032 were male and 819 females. The average population in each ward is 264 persons. The average household size is 3.21 persons. The total area of Nagar Panchayat Chopal is 339-16 Bighas. Chopal is a moderately growing Town in District Shimla primarily of rural character. To cater to and manage critical urban issues, Nagar Panchayat Chopal must be strengthened with adequate technical manpower and resources for ensuring efficient urban management and sustainable development of Chopal Town. At present Nagar Panchayat Chopal has been divided into 7 wards-

- 1. Dhadhu-Bus stand
- 2. Lankerveer Mandir
- 3. Charveer Court Road
- 4. Club House
- 5. Shirgule Mandir
- 6. Chawniveer Hospital
- 7. Talab

Figure 2.9- Nagar Panchayat Chopal Wards



(Source - Nagar Panchayat Chopal)

Figure 2.10- Nagar Panchayat Chopal Office



#### 2.4.3 CONSTITUTION OF CHOPAL PLANNING AREA

To ensure planned and regulated development, the Government of Himachal Pradesh extended the H.P. Town and Country Planning Act, 1977 to Chopal Planning Area vide Notification No. TCP-F (5)-9/2013, dated 14.01.2014 published in Rajpatra on 15.01.2014. Chopal Planning Area comprises Nagar Panchayat Chopal and five other Revenue villages i.e., Chopal, Satka, Majhotly, Bodhna and Jaigarh with complete Hadbast numbers. The physical boundaries of the Planning Area are defined as under.

**North:** Starting from the junction point of Nagar Panchayat Chopal and village Jaigarh near junction point of Shimla Ziknipul Road downwards following the Northern boundary of Mohal Jaigarh Hadbast No.818 up to the meeting point of Northern-Eastern boundary.

East: Starting from the Northern-Eastern boundary point towards the Southern side following the Eastern boundary of Mohal Bodhna Hadbast No.1446 up to the meeting point of the Eastern-Southern boundary of Mohal Bodhna and Mohal Chopal.

**South:** Starting from the Eastern-Southern boundary point towards the Western side following the Southern boundary of Mohal Majhotly Hadbast No.1291 up to the meeting point of Nerwa road.

West: Starting from Nerwa road up along the western boundary of Mohal Majhotly to the junction point of Mohal Majhotly and Mohal Satka. Then following the outer Western boundary towards the Northern side of Mohal Satka Hadbast No.330, Nagar Panchayat Chopal Hadbast No.53 (old) down-wards to the meeting point of Nagar Panchayat Chopal, Mohal Jaigarh near the junction point of Shimla and Ziknipul road.

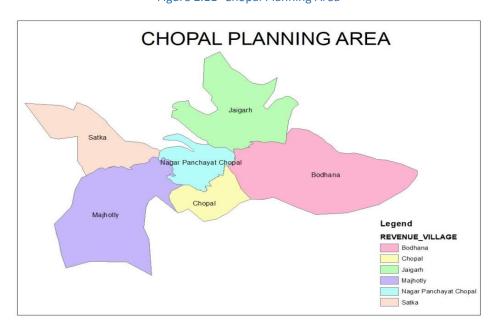


Figure 2.11- Chopal Planning Area

Table 2.4.1- Chopal Planning Area

S. No.	Name of settlement	Hadbast No.	Area (Hect.)	Population 2011
1.	Nagar Panchayat Chopal	53(old)	34	1851
2.	Chopal	525	39	98
3.	Satka	330	69	201
4.	Majhotly	1291	139	342
5.	Bodhana	1446	176	374
6.	Jaigarh	818	104	210
	Total	-	561	3076

#### 2.5 TOWN CHARACTERISTICS

Being a Tehsil headquarter Chopal town enjoys the administrative status as it is also a Nagar Panchayat. The town is growing in an unplanned manner due to the rapidly increasing decadal population, urbanization pressure, and massive influx of rural migrants. Although, the H.P. Town and Country Planning Act, 1977 was extended in the year 2014 and Chopal Planning Area was constituted, yet development patterns along the Sainj-Chopal-Nerwa and Jhiknipul roads are emerging in the form of uncontrolled ribbon development. As Shimla District comes under Seismic Zone-IV still the construction and design of houses are not ensured as per seismic resistance as prescribed in the National Building Code (NBC) which could be disastrous in event of an earthquake of high magnitude. Also, the provisions of Town planning Act and Rules are grossly violated as there is no urban land use zoning for ascertaining planned and regulated development. The haphazard construction activities in an unplanned manner is a major concern due to which the town is facing worse conditions and is losing its carrying capacity, besides, mounting pressure over infrastructure and thus becoming the prey of consumerism forces.

Chopal is famous for Timber of Deodar and Agriculture/Horticulture products mainly Apple. It is the most important town of tehsil Chopal and a center for commercial and public activities along with being a recreational town for celebrating local fairs/festivals. The Bazar area is the main hub for commercial, business, and public activities, with few Governments, Semi Government offices and facilities that exist in the vicinity of residential and commercial buildings. The residential and commercial buildings with their activity are spatially expanding along the Shimla-Chopal-Nerwa-Tuini Road and this expansion is mostly in ribbon form which needs proper regulation and planning in future.

#### 2.6 PHYSICAL SETTINGS

#### 2.6.1 TOPOGRAPHY

The Chopal Planning Area has a minimum altitude of 1700 metre and a maximum altitude of 2550 metre above the mean sea level. Thus, rising from a medium height it also has a

relatively high-altitude area along with terraced landform. The soil here is mainly pale white to grey quartzite, locally cross-bedded, subordinate schist.

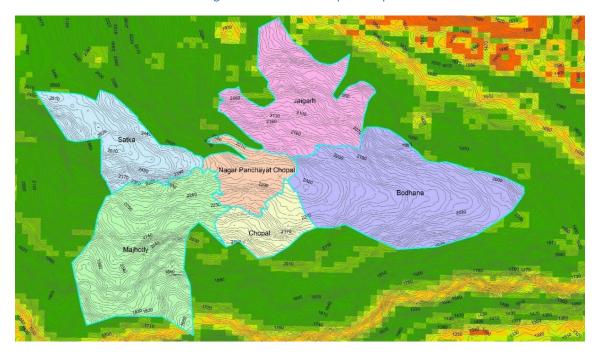


Figure 2.12- Contour Map of Chopal

(Source - GIS)

#### **2.6.2 CLIMATE**

Chopal bears a sunny aspect and the climate is bracing and vigorous with a tinge of cold. The winter lasts from December until the end of February and is characterized by heavy snowfall at higher altitudes with rain and hail at lower altitudes. The temperature can dip up to -10 degrees Celsius. On the higher reaches snow does not melt easily and may stay until the end of March. The change over from winter to summer is gradual. The months of March and April are delightfully pleasant. The temperature rises gradually after the middle of April upto 32°C. Thunder and hail storm occur during May and June, which are normally dry-hot months. The monsoon arrives by the end of June or the beginning of July and lasts up to the end of September. The sky is invariably cast with clouds, humidity is high and the air full of fog and mist. October and November are generally dry and there is a gradual fall in temperature. Occasional snowfall may occur in higher reaches of Chopal valley, especially at Churdhar peak during these months. The average annual rainfall in Chopal is about 1200 mm.

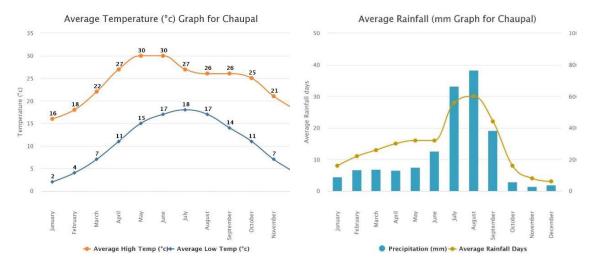


Figure 2.13- Average Temperature & Rainfall of Chopal

#### 2.6.3 DRAINAGE

Being a terraced landform and sort of in a ridge, it is interesting that the Chopal Planning area has a two-fold drainage pattern, one facing south goes towards Dhadhoo Nala and the other facing north side. The first order stream pattern gives rise to the second order on both sides of the ridge which then finally meet below in the valley at the Nalah. This natural relief landform of Chopal area has a positive potential to be used for drainage services using gravitational force.

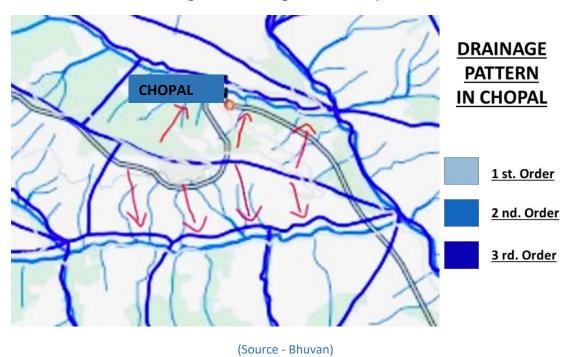


Figure 2.14- Drainage Pattern in Chopal

#### 3 **DEMOGRAPHIC PROFILE**

#### 3.1 EXISTING POPULATION AND DISTRIBUTION

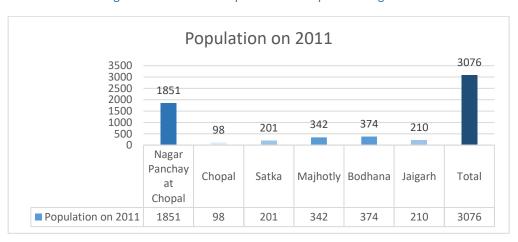
Chopal Tehsil consists of **435** villages out of which 6 Revenue mohals including the Nagar Panchyat area which falls within the purview of the Chopal Planning Area. The total area of Chopal Planning Area is 561 Hect. The total population of Tehsil Chopal as per census 2011 is 31118 and Chopal Planning Area is 3076 which is around 9.88% of the total Tehsil population. The development of a particular town, city, or region depends upon natural, physical and economic factors. Among these factors, the population assumes significance in determining the future pattern of progress and spatial development.

Table 3.1.1- Chopal Planning Area Population

S.No.	Name of Revenue Mohal	Hadbast No.	Area (Hect.)	Population 2011
1.	Nagar Panchayat Chopal	53(old)	34	1851
2.	Chopal	525	39	98
3.	Satka	330	69	201
4.	Majhotly	1291	139	342
5.	Bodhana	1446	176	374
6.	Jaigarh	818	104	210
	Total	-	561	3076

(Source – Census of India 2011)

Figure 3.1- Area wise Population of Chopal Planning Area



(Source - Census 2011)

#### 3.2 POPULATION GROWTH AND ITS COMPOSITION

The population of the Chopal Planning Area has increased from **2,093** persons in 1991 to **2868** persons in 2001 at the rate of 37.02% during 1991-2001 and from **2868** persons in 2001 to **3,076** persons in 2011 at the rate of 7.25% during 2001-2011.

Table 3.2.1- Population Growth of Chopal Planning Area

Sr.	Name of	Hadbast	Area in	Pop. in	Pop. in	Pop. in	Pop. in
No.	settlement	No.	Hect.	1981	1991	2001	2011
1.	Nagar	53(old)	34	-	1074	1507	1851
	Panchayat						
	Chopal						
2.	Chopal	525	39	537		-	98
3.	Satka	330	69	53	127	186	201
4.	Majhotly	1291	139	192	267	288	342
5.	Bodhana	1446	176	997	892	887	374
6.	Jaigarh	818	104	-	-	-	210
	Total	-	561	1779	2360	2868	3076

(Source: - Census data 1991,2001,2011)

#### 3.3 POPULATION DENSITY

Satka

Naga Panchayat Phopal

Bodhana

Chopal

Legend
PLANNING\_AREA
Density

2.01
2.12
2.46
2.51
2.91
54.44

Figure 3.2- Population Density map

Table 3.3.1- Population Density of Chopal Planning Area

Name of settlement	Area	Population on 2011	Density(PPH)
	(Hect.)		
Nagar Panchayat Chopal	34	1851	54.44
Chopal	39	98	2.51
Satka	69	201	2.91
Majhotly	139	342	2.46
Bodhana	176	374	2.12
Jaigarh	104	210	2.01
Total	561	3076	5.48

Figure 3.3.4 Population Density map (Source-GIS)

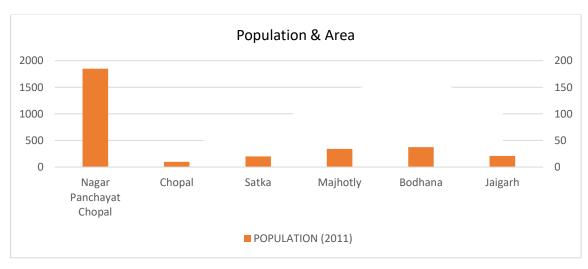


Figure 18 reveals that the Nagar Panchayat Chopal has a maximum population but minimum area making it a highly dense area having an Urban character whereas in Bodhana area is more with less population of scattered settlements of a rather Rural scenario in the Chopal Planning Area.

#### 3.4 AGE-SEX COMPOSITION

Table 3.4.1- Rural-urban Sex Ratio of Chopal Tehsil

Compone	Persons	Male	%age	Female	%age	Sex Ratio	0-6 Age
nt							
Chopal	31118	16008	51.44	15110	48.56	944	10,673
Tehsil							
Chopal	29267	14976	51.17	14291	48.83	954	10,435
Rural							
Chopal	1851	1032	55.75	819	44.25	794	238
Urban							

(Source: - Census data 2011)

MALE FEMALE POPULATION 1000 500 **SEX RATIO** 40 60 Chopal Urban Chopal Rural ■ MALE %age

Figure 3.5- Rural-urban Sex Ratio of Chopal Tehsil

(Source: - Census data 2011)

The above table reveals that the present total population of Tehsil Chopal is 31,118 persons, out of which 16,008 are males and 15,110 are females. Therefore, the sex ratio is 944 females per 1000 males. Most of the population is residing in the rural area which accounts for 94.05%. There are about 29,267 persons in the rural areas out of which 51.17% are males and 48.83% are females. The sex ratio is 954 females per 1000 males in rural areas, whereas 794 females per 1000 males in the urban area. The reason behind the lower sex ratio in the urban area is the majority of males migrate to the urban area from surrounding rural areas under the thrust of availability of better job opportunities.

Name of settlement Persons Male %age Female %age 0-6 Age Ratio Nagar Panchayat 1851 1032 55.75 819 44.25 794 238 98 52 Chopal 53.06 46 46.94 885 17 103 48.76 19 Satka 201 51.24 98 981 53.22 Majhotly 342 182 160 46.78 879 36 Bodhana 374 182 48.66 192 51.34 192 28 210 106 50.48 104 49.52 19 Jaigarh 1055 **Total** 3076 1657 53.87 1419 46.13 856 362

Table 3.6- Age- Sex Composition Chopal Planning Area

(Source: - Census data 2011)

Figure 3.5 indicates that the sex ratio is better in Jaigarh, Bodhana and Satka which are rural areas, whereas the Nagar Panchayat Chopal area has a poor sex ratio which affects the overall sex-ratio of the planning area as maximum people live here.

Chopal Urban

Chopal Rural

20

■ FEMALE %age

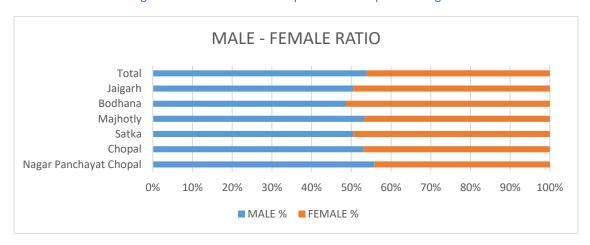


Figure 3.6- Male- Female Composition in Chopal Planning Area

#### 3.5 LITERACY

As per the census 2011, 64.60% of the total population of Chopal Tehsil is literate as against 75.26% of Shimla District. Table 3.6 indicates that among the percentage of literates and illiterates in rural and urban areas there are more illiterates in rural areas. Chopal Planning Area needs to be provided with infrastructure under Govt. of the education scheme to improve the situation.

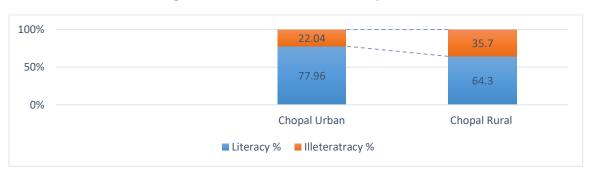


Figure 3.7- Literate and Illiterate in Chopal Tehsil

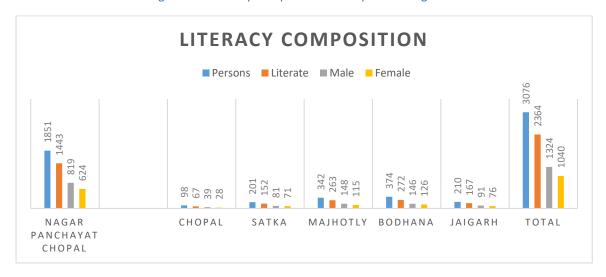
(Source: - Census data 2011)

Table 3.5.1- Literate and Illiterate in Chopal Planning Area

			Literacy Rate				Illiterac	y Rate	
Name of settlemen t	Person s	Literat e	%	Male	Femal e	Illiterat e	%	Mal e	Femal e
Nagar Panchayat Chopal	1851	1443	77.96	819	624	408	22.04	213	195
Chopal	98	67	68.37	39	28	31	31.63	13	18
Satka	201	152	75.6 2	81	71	49	24.3 8	22	27

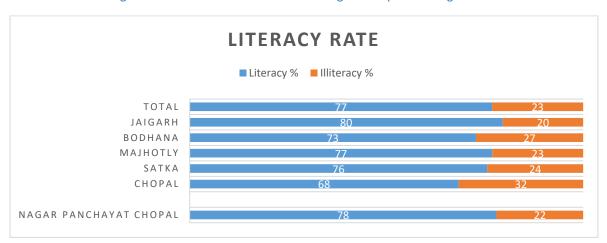
Majhotly	342	263	76.9	148	115	79	23.1	34	45
			0				0		
Bodhana	374	272	72.7	146	126	102	27.2	36	66
			3				7		
Jaigarh	210	167	79.5	91	76	43	20.4	15	28
			2				8		
Total	3076	2364	76.8	132	1040	712	23.1	333	379
			5	4			5		

Figure 3.8- Literacy Composition in Chopal Planning Area



(Source:- Census data 2011)

Figure 3.9- Literate and Illiterate Percentage in Chopal Planning Area



(Source: - Census data 2011)

Figure 3.8 indicates that the Literacy rate is better in Nagar Panchayat Chopal and Jaigarh, whereas in adjoining villages of Chopal and Bodhana the literacy rate is poor and thus needs a boost in educational facilities.

#### 3.6 WORKFORCE PARTICIPATION

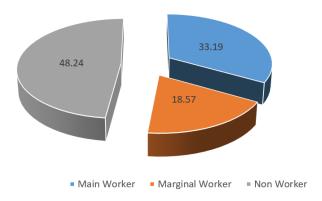
As per census data 2011, the main workers in Chopal Planning Area are 1021 whereas marginal workers are 571. The main occupation of the people in the Chopal Planning Area is growing fruits & vegetables, which include cabbage, Potato, and capsicum, and apples, peach, cherry, and apricot. Table 8 shows the occupational structure as under: -

Table 3.6.1- Occupational Structure in Chopal Planning Area

	Sr.No.	Occupation	Total	Male	%age	Female	%age
	(i)	Cultivators	176	157	89.20	19	10.80
Main workers	(ii)	Agricultural Labours	45	28	62.22	17	37.78
	(iii)	Household, industry	17	8	47.06	9	52.94
		workers					
	(iv)	Other workers	783	639	81.61	144	18.39
	To	tal	1021	832	81.49	189	18.51
	(i)	Cultivators	345	66	19.13	279	80.87
Marginal	(ii)	Agricultural Labours	136	65	47.79	71	52.21
workers (iii)		Household, industry	31	11	35.48	20	64.52
		workers					
	(iv)	Other workers	59	34	57.63	25	42.37
Total			571	176	30.82	395	69.18
Non-workers	3.		1484	649	43.73	835	56.27
TOTAL			3076				

(Source- Census data 2011)

Figure 3.10- Occupational Structure in Chopal Planning Area



The figure above clearly shows that the major of the population that is 48.24% is non-working which may be due to the lack of employment opportunities in the planning area thus, requiring more venues for higher education and employment so that the people here become self-reliable.

#### 3.7 HOUSEHOLD CHARACTERISTICS - HOUSEHOLD SIZES

Household size while related to the number of available rooms gives an idea about occupancy ratio and the degree of congestion. It has its utmost use in estimating the

future housing requirements of the town or city. The household distribution and size are given in table 3.9 below, which is higher in rural areas against the urban area.

Table 3.7.1- Household size and population in Chopal Planning Area

Sr.No	Name of settlement	Household 2011	Population 2011	Household Size
1.	Nagar Panchayat Chopal	577	1851	3.21
2.	Chopal	22	98	4.45
3.	Satka	52	201	3.86
4.	Majhotly	73	342	4.68
5.	Bodhana	86	374	4.35
6.	Jaigarh	43	210	4.88
	Total	853	3076	3.60

(Source- Census data 2011)

As per the census 2011, it is found that 853 households accommodate a population of 3076 persons. Therefore, the household size works out to be approximately 4 persons. Besides the intensity of gross density is around 6 persons/hectare, whereas the net density of urban areas is quite high due to overcrowding, congestion and high occupancy rate, adequacy, and inadequacy of open spaces. The major concentration of population is along the MDR 74 Chopal-Nerwa road and marginal in different directions of the Planning Area as per availability of developable land in and around the town as well as the Planning Area.

#### 4 LAND PROFILE

#### 4.1 EXISTING LANDUSE

Existing land use of the Chopal planning area was prepared and adopted vide Notification No.HIM/TP/PJT/Chopal PA/98/Vol-I/16820 dated 23.11.2016. The total area under Chopal Planning Area is 561.00 Ha covering Nagar Panchayat Chopal and five other Revenue villages i.e., Chopal, Satka, Majhotly, Bodhna & Jaigarh with complete Hadbast Numbers.

Sr. No.	Name of settlement	Hadbast No.	Area in Hect.	
1.	Nagar Panchayat Chopal	53(old)	34	
2.	Chopal	525	39	
3.	Satka	330	69	
4.	Majhotaly	1291	139	
5.	Bodhna	1446	176	
6.	6. Jaigarh		104	
	Total		561	

Table 4.1.1- Chopal Planning Area covering revenue village

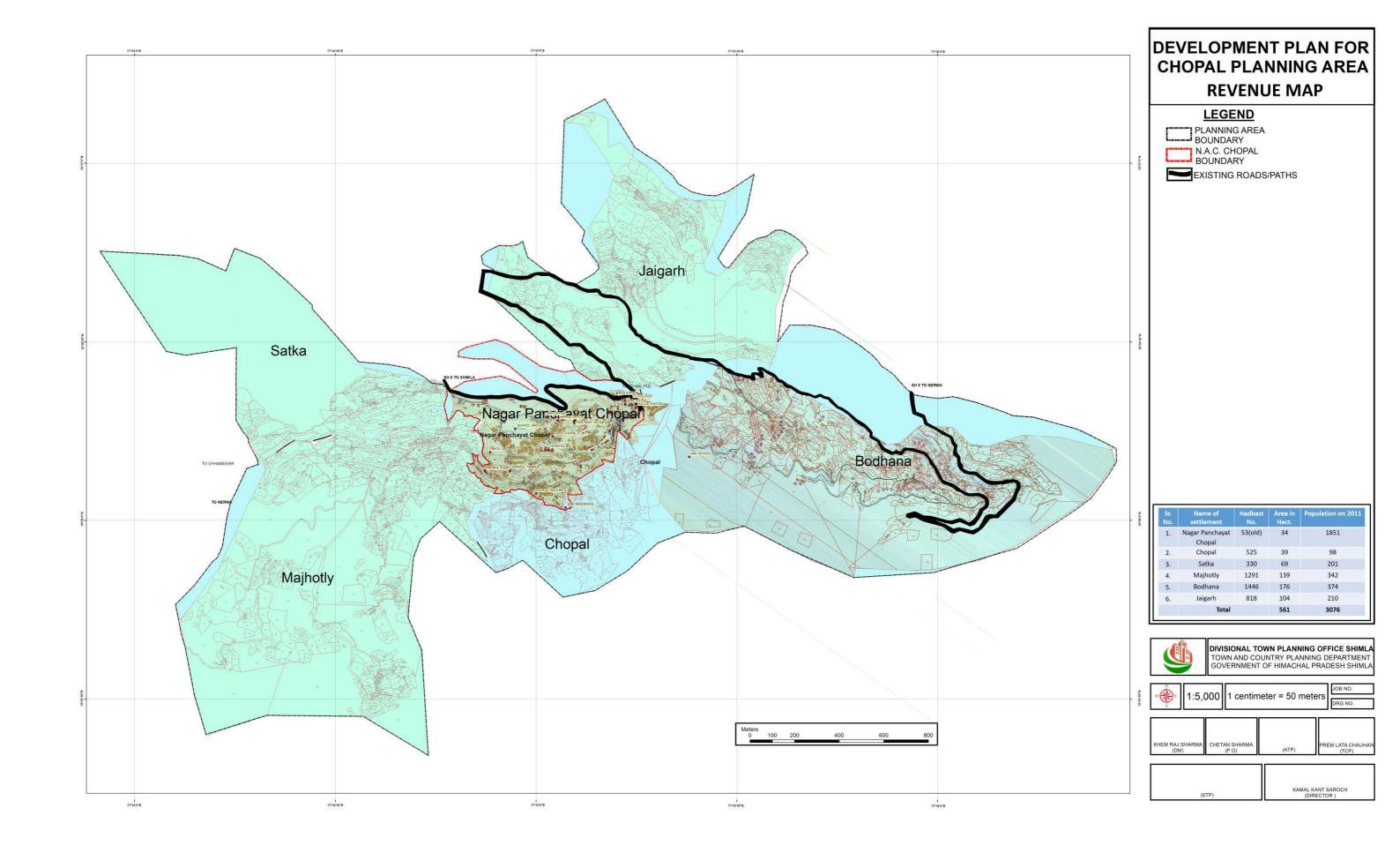




There is mixed land use pattern without any zoning for different urban uses, like residential, commercial, public, and semi-public, traffic and transportation, green areas, etc. Every use is intermixed with some other one. As such collision and intrusion of land use is the prime concern.



Figure 4.2- Mixed-use development in Chopal



To have planned and regulated development of the Chopal Planning Area, this Development Plan will guide and cater to the needs of every landuse. For the proper planning and sustainable development, this strategic document is prepared for the plan period of 2041 which would give a proper direction to entire future development activities.

#### 4.1.1 RESIDENTIAL USE

The existing residential use comprises 21.01 Hec. of land which works out to 3.75 % of the planning Area. The residential areas are scattered throughout the planning area however major concentration of residences is the Nagar Panchayat Chopal area whereas revenue village like Bodhana and Jaigarh has dispersed residential house surrounded by big agricultural land mainly in the form of orchards. In the central area of the town mainly in Nagar Panchayat Chopal residential use intermixed with commercial use is a common phenomenon, shops on the ground floor on the roadside and remaining upper floors for residential use can be easily seen in the area. The residential houses are generally two to four storeys.

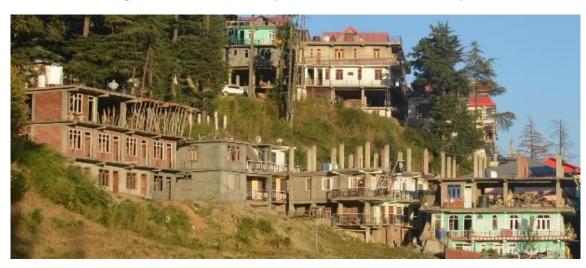


Figure 4.3- Residential developments under construction in Chopal

Apart from the new RCC construction, there are old structures of heritage importance made of traditional architecture and local materials such as stone and timber.



Figure 4.4- Traditional Houses in Chopal

#### 4.1.2 COMMERCIAL USE -

The commercial activities are only concentrated in the central part of Nagar Panchayat Chopal along the major road that is MDR 74 Sainj-Chopal-Nerwa-Shallu Road. Some small commercial establishments are also seen along the old bazaar road that is from Lankra Veer Mandir to Main Bazaar. Presently, there are 181 commercial establishments in the Planning Area, which serves the population of Chopal as well as the catchment population residing in surrounding villages beyond the Chopal Planning Area limit. The existing area under Commercial use is 0.91 Hect. which is 2.27% of the Developed area of Chopal Planning Area. Generally, there are shops on the ground floor and residences, offices, go-downs, or some other activities at other levels. Thus, commercial activities have a conspicuous tendency to come up in mixed patterns with residential and other compatible land uses along the roads which need to be discouraged by way of zoning regulations and strict implementation thereof.



Figure 4.5- Commercial development along Road in Chopal

#### 4.1.3 INDUSTRIAL USE

There is no small/large-scale industrial establishment in Chopal Planning Area.

#### 4.1.4 PUBLIC AND SEMI-PUBLIC USE

The existing area under public and semi-public use is 5.17 Hect. which is 0.92% of the total planning area. The public and semi-public use also include Govt. and Semi-Govt. offices, facilities like education, health, religious and recreational institutions, utilities and services as well as cremation/burial ground, etc. The services and facilities have been clubbed to work out proposals.

Figure 4.6- Temples of local architecture in Chopal





Figure 4.7- Govt. Offices in Chopal



#### 4.1.5 PARKS AND OPEN SPACES USE

At present, there is no park existing in Chopal Planning Area. Open spaces are School ground and SDM office Ground having a total area of 1.35 Hect. which is 0.24% of the total Planning Area. More open spaces and organized parks are required to serve the active and passive recreational needs of the residents as well as visitors.

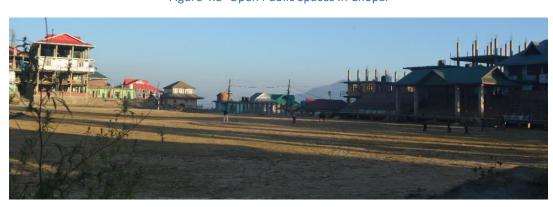


Figure 4.8- Open Public Spaces in Chopal



#### 4.1.6 TRAFFIC AND TRANSPORTATION USE

The area existing under the circulation network is 11.67 Hect. which is 2.08% of the total Planning area and 29.09% of the developed area. There is an existing bus-stand in ward no. 1 which is insufficient as per the current situation and lacks basic facilities like sitting and commercial activity. Thus, the area for an upgraded local bus stand, Truck Terminal, car parking, workshop, and petrol pump is required to be proposed.

#### 4.1.7 TOURISM USE

Chopal is a Himalayan town surrounded by forest rich in flora - fauna and there is also the highest peak of Shimla district named Churdhaar peak which also has a lord shiva temple on the top, and is a very famous trekking destination for locals and tourists. Thus, there is huge potential for the development of tourism activities in the Planning Area, which needs to be addressed properly in the Development Plan.

#### 4.1.8 FOREST LAND USE

An area of 79.58 Hect. is existing under forest use, which is 14.19% of the Planning Area. The major forest area is Jungle Chopal towards north – east side of the planning area.



Figure 4.9- Forest Area in Chopal

#### 4.1.9 AGRICULTURE USE

Under the existing agriculture use, there is 441.31. Hect. which is 78.66% of the Planning Area. Agriculture is not merely an occupation but an established tradition. It is the mainstay of the economy of local people, on which a vast majority of the population depends directly or indirectly on various agricultural pursuits for maintaining their livelihood. However, at the same time shelter i.e., housing is also one of the necessities of the human being after food and clothing, therefore, to accommodate a future population of the Planning Area, some of the lands under agricultural use shall have to be used for other purposes.



Figure 4.10- Agriculture Use in Chopal

#### 4.1.10 WATER BODIES AND STEEP SLOPE

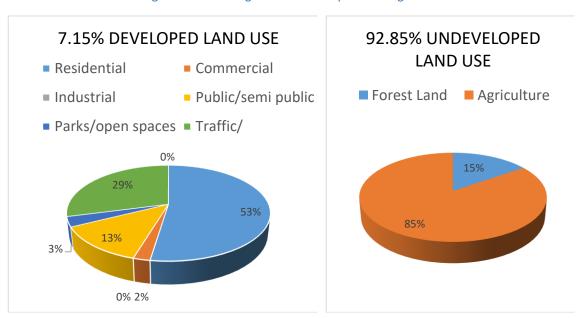
The area under water bodies and steep slopes is 165.20 Hect., which is 29.41% of the total planning area. The steep slope is considered more than 45 degrees which are generally towards the southern lower side of the planning area and mainly comprises the forest, shrub/marshy land generally used by locals as grasslands called Ghasnis in the local language. As Chopal is situated at the ridge at the top it does not have any water body in the form of a lake or streams.

Table 4.1.2- Existing Landuse of Chopal Planning Area

Sr. No	Land-use	Area (Ha.)	% of Total Area	% of Developed area	As per URDPFI Guidelines		
	A. Developed Area						
1	Residential	21.01	3.75%	52.38%	50 – 55		
2	Commercial	0.91	0.16%	2.27%	2-3		
4	Industrial	0	0%	0%	3 – 4		
5	Pub. & semi Public	5.17	0.92%	12.89%	8 – 10		
6	Recreational	1.35	0.24%	3.37%	15 – 18		
7	Traffic & Transportation	11.67	2.08%	29.09%	5 – 6		
	Sub Total (A)	40.11	7.15%	100%			
	<u> </u>	B. Un-deve	loped Area				
10	Agriculture	441.31	78.66%				
11	Forests	79.58	14.19%				
	Sub Total (B)	520.89	92.85%				
	Total (A+B)	561.00	100%				

(Source - GIS)

Figure 4.11- Existing Landuse of Chopal Planning Area



Out of the total area, a maximum of 92.85 % of the area is under forest land and agriculture use and just 7.15% is under various other uses showing a strong ecological weightage in the planning area which needs to be considered.

## 4.2 DEVELOPABLE AND NON-DEVELOPABLE AREAS

As per the Census of India 2011, the different land distribution of non-developable land is shown below in table no. 4.2 –

Table 4.2 - Undeveloped Land in Planning Area

Village	Forest	Non- Agricultur al Use Area	Barren & Un- cultiva ble	Permanent Pastures and Other Grazing	Land Under Miscellane ous Tree Crops etc.	Cultu rable Wast e Land	Net Area Sown
Majhotli	0	7.43	10.86	76.71	0	6.52	37.22
Satka	51.23	1.76	0	2.17	0	1.59	11.76
Bodhana	0	4.4	0	0	0	0	75.39
Jaigarh	49	7.99	0	15.2	0	4.45	27.38
Chopal	15.9	1.16	0	27.95	4.52	2.96	20.96
TOTAL	116.13	22.74	10.86	122.03	4.52	15.52	172.71
	291.8					172.71	
		464.51					

(Source - Census of India 2011)

As per Census, 2011, about 116.13 Hect. is under forest use whereas as per GIS Analysis only 79.58 Hect.

As per URDPFI Guidelines Identification of the developed area is calculated by deducting the natural ecological area from the entire planning jurisdiction. **HILL TOWN DEVELOPABLE AREA = HILL TOWN JURISDICTION AREA – NATURAL ECOLOGICAL AREA** 

Legend
SLOPE
-(VALUE>

0 -45

> 45

TO CHAMDHAR

1 D NERWA

Figure 4.12- Non-Developable Area in Chopal Planning Area

(Source- GIS Slope Analysis)

The non-developable area is defined as earthquake/landslide prone, cliffs and environmentally hazardous areas, areas adjacent to fault lines, areas with a slope higher than 45degrees, flood plains and areas adjacent to major drainage lines for general guid ance, and all environmentally sensitive areas.

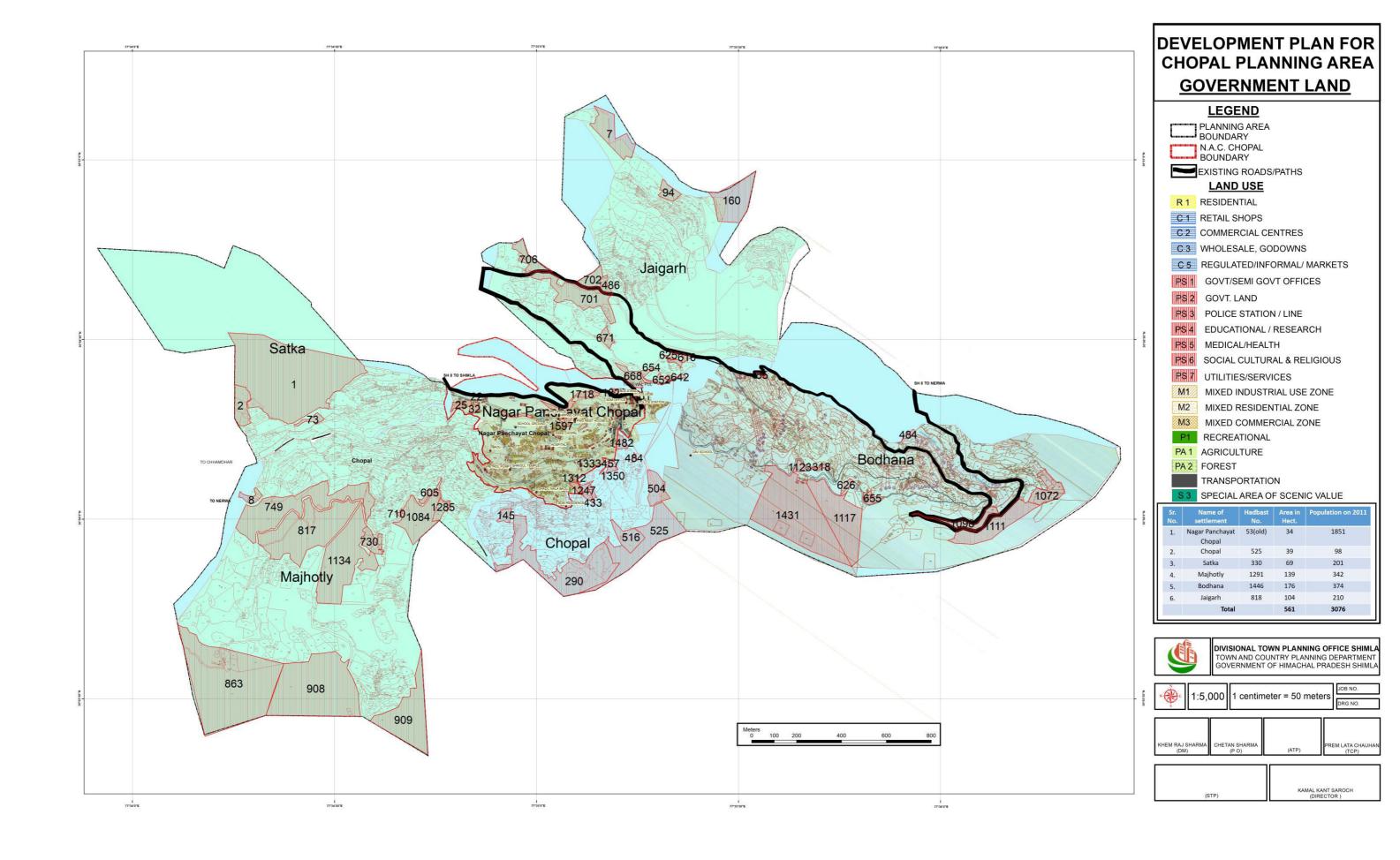
Thus, the areas shown in dark red and orange are non – developable as they are more than 45 degrees in slope, which comes out to be 165.20 Hect. whereas the area under forest is 79.58 Hect. Thus, the combined non-developable area comes out to be 244.78 Hect, out of which the remaining Developable Area is 316.22 Hect. should be proposed for future development requirement.

As land is a state subject majority of land under forest cover in the Chopal Planning area belongs to the Himachal Pradesh Forest Department. As per revenue record collected from Revenue Department, about 106.81 Hect. of Govt. land does not have forest cover which can be used for public use developmental activities.

#### **INFERENCES -**

- The major concern with unplanned and improper management of physical & man-made environments is the integration of environmental concerns. These issues are not properly managed by the techno-legal framework. So, for sustainable development of such a small hill town like Chopal integrated environmental development is required.
- It is essential to avoid ribbon development, population congestion, unplanned construction, and haphazard development. As per Development Plan, all developmental activities should be done accordingly.
- There are many large patches of government land in the planning area which could be used for public proposals.

Figure 4.13 Government Land in Chopal Planning Area (Source-H.P. Revenue Dep.)



# 5 **ECONOMIC PROFILE**

# **5.1 PRIMARY**

The average size of holding in the Chopal Planning Area is 0.78 Hect. as per as Agricultural Census (Department of Agriculture & Family Welfare) 2015-16. As per existing land use, the major land use is Agriculture around 441.31 Hect. that comes out to be 78.66% of the total area in the Chopal Planning Area. This includes vegetables like Cabbage, Cauliflower, Peas, and Potato. As per Census data the Agricultural Commodities are —

VILLAGE	FIRST	SECOND
Majhotly	Wheat	Maize
Satka	Pea	Wheat
Bodhana	Apple	Wheat
Jaigarh	Wheat	Maize
Chopal	Apple	Wheat

Table 5.1.1- Agricultural Commodities in Chopal Planning Area

(Source - Census of India)

Horticulture fruits such as Pear, Plum, Kiwi, Persimmon, Cherry, Apricot, and Peach are there. But Apple orchards cover the majority of the area. The production of fruits in Chopal Tehsil was 22007.4 MT among which apple production was 21920 MT clearly stating that the planning area has apple as major produce.



Figure 5.1- Apple Orchard in Planning Area

Forest area is 14.19% in the Planning area which is now majorly used by people for firewood collection and cattle rearing by some people. No commercial benefits are availed by local people from the forests.



Figure 5.2- Forest in Planning Area

Table 5.1.2- Agricultural Area in Planning Area

Village	Fores	Non-	Barren	Permanent	Land	Culturable	Net
	t	Agricu	& Un-	Pastures and	Under	Waste	Area
		Itural	cultiva	Other Grazing	Miscellan	Land	Sown
		Use	ble		eous Tree		
		Area			Crops etc.		
Majhotli	0	7.43	10.86	76.71	0	6.52	37.22
Satka	51.23	1.76	0	2.17	0	1.59	11.76
Bodhana	0	4.4	0	0	0	0	75.39
Jaigarh	49	7.99	0	15.2	0	4.45	27.38
Chopal	15.9	1.16	0	27.95	4.52	2.96	20.96
TOTAL	116.1	22.74	10.86	122.03	4.52	15.52	172.71
	3						
	291.8				172.71		
		464.51					

(Source - Census of India 2011)

As per as Census of 2011 out of the total 464.51 non-developed areas the net sown area is 172.71 Hect which is around 30.79% of the total planning area.

## **5.2 SECONDARY**

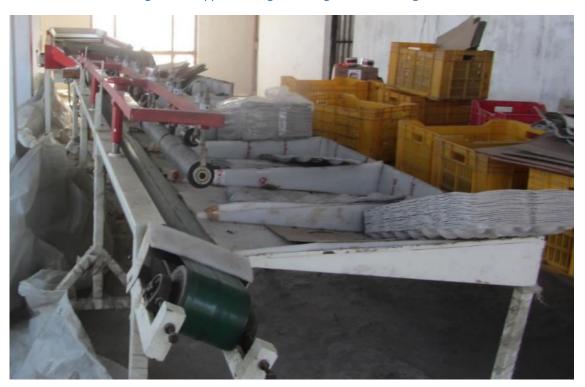
As per as Existing Land Use Register of Chopal Planning Area and records of Nagar Panchayat Chopal there are no existing small or medium-scale industries of manufacturing units in Chopal Planning Area. Neither are there any Manufacturers or Handicraft Commodities but the main small-scale industry comes to be is the Apple Industry in the form of apple cold stores, sheds, and grading & packing units. The secondary commercial units in the Chopal Planning Area are as shown below in the table

Table 5.2.1- Secondary Commercial Units in Chopal Planning Area

VILLAGE	SHED	APPLE SHED
MAJHOTLY	3	2
BODHANA	1	1
SATKA	-	-
JAIGARH	2	

(Source - Existing Land Use Register)

Figure 5.3- Apple Grading & Packing Unit in Planning Area



#### 5.3 TERTIARY

### **5.3.1 TRADE**

As per records of Nagar Panchayat Chopal and HPSCSC, there is one HPSCSC whole sale Godown and one Fair Price Shop in Chopal Planning Area. Along with this, the number of commercial establishments as per as Existing Land Use Register of Chopal Planning Area is 143 which are of different uses. Mostly these shops are existing in Nagar Panchayat Area and along the MDR 74 Sainj-Chopal-Nerwa road. Out of 143 shops, 90% of the shops are in good condition, whereas 10% of shops require repairs and maintenance. The general size of the shop is 2 .0 mtr. X 3.0 mtr., having an area of 6.00 sqm of each shop.



Figure 5.4- Typical Shop in Planning Area

### 5.3.2 TOURISM

## 5.3.2.1 TOURISM SCENARIO

As the fame and peculiarity of any town depend upon its natural as well as man-made heritage, tourist attractions, and popular entertainment sources including cultural manifestations and landscape. The gradient of Valleys is quite ameliorating with slopes ranging between 15° to 45°. The influx of tourists is lower than in other towns. To rejuvenate the economy of the town, it is imperative to identify major tourist attraction points in the Planning Area and make provisions for requisite infrastructure in potential areas. Planning Area, however, has the potential to attract elite tourists on account of apples, orchards, and mountains presenting a varied and fascinating natural landscape. The only thing required is to ensure planned spatial urban growth in consonance with its environs and hill architecture elements including sloping roofs, facades, dormers, etc. Uncontrolled corridor development is need to be discouraged and green cover preserved to keep the natural landscape of the town intact. Therefore, the sustenance of the tourism industry is directly depending upon the incoming tourist traffic and their economic status.

## 5.3.2.2 TOURIST ATTRACTIONS

Chopal Town is emerging as a Tourism town by its location on MDR 74 Sainj-Chopal-Nerwa road. Due to its location, it has a picturesque view of the surrounding snow-clad mountains. The town is among the most important point for tourists who like to trek the Churdhar Peak. Therefore, the town is promoting the Tourism Industry & Economy of the area. The other attraction is the adjoining village which has a unique environment. The traditional houses made of local materials i.e., stone, wood & slanting slate roofs add an advantage in attracting tourists. There is an old temple dedicated to Lanka Bir (Bhairon) above Chopal and Sarain, a nearby place, which houses the Bijjat Temple making Chopal a fine place to explore the religious and cultural heritage of the upper Shimla region.



Figure 5.5- Picturesque View from Chopal







#### 5.3.2.3 REGIONAL TOURIST DESTINATIONS

The major regional Tourist destinations are Kufri, Chail, and Narkanda which have unique picturesque views and unmatched beauty. The other tourist attractions are Churdhar and Hatkoti having great tourism potential.

(a) Churdhar Peak: - Himachal proudly challenges the seekers of offbeat tourism spots. Churdhar is one such awesome destination where you can quench your thirst for experiencing nature at one of its best faces. Located in the Sirmour district of the state, it's a place of great religious importance to the north Indian Hindus. The peak is highest in the Sirmour and outer layers of the Himalayas. At the top of the Churdhar peak, a giant statue of Lord Shiva takes the pilgrims back to the tales of great Indian epics like Mahabharta and Ramayana. Trek to this high peak about 3647 meters above sea level is ~ 7 KM long from Sarahan and passes through the changing scenes of the diverse nature with forest, meadows and ravines. At the top one feels satisfied and overwhelmed with earth's spectacular beauty. The whole area of 56.16 km<sup>2</sup> comes under the sanctuary, which makes it one of the most peaceful places on earth. The place can be approached by two main routes, from Nohradhar, Sirmour of 14 km and Sarahan, Chopal of 7 km. During a trek of almost 5 hours, one doesn't feel tired amidst the striking views and thick forest full of chirping noises, Gujjars with their cattle and many more wildlife on the way. From Churdhar one can witness beautiful peaks of the Dhauladhar, the Greater Himalayas and some giant peaks of Uttarakhand like Swargarohini (6,252m), Bandarpoonch (6,316m), Kedarnath (6,940m) and Badrinath (7,138m) as well.

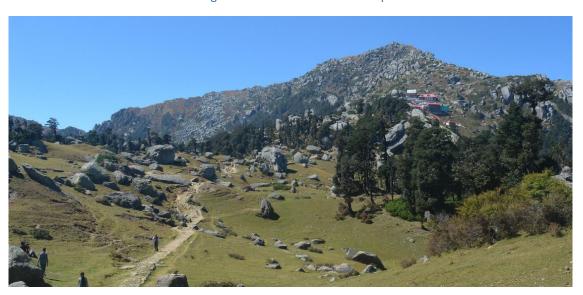


Figure 5.7- Churdhar Peak & Temple View

#### 5.3.2.4 TEHSIL TOURIST DESTINATIONS

**(b) Kufri:**- A perfect holiday destination amidst the snow-capped mountains and the scenic beauty. A skiing hub. An ideal destination for the honeymoon couple and family trips.





Also, an ideal destination for adventure junkies as Kufri has the following activities –

- (1) Himalayan Nature Park Kufri Idyllic for a wildlife enthusiast who rejoices in the splendor of nature, Himalayan Nature Park, Kufri is a must-visit place. Home to more than 180 species of birds and animals, this nature park is a reflection of the wildlife found in the Himalayas. The nature park at Kufri is 16 Km from Shimla.
- (2) Fun World, Kufri On your escapade to the mountains having fun activities in the lap of imposing Himalayan ranges Fun World in Kufri takes pride in having the highest go-kart track, along with other engaging activities that'll be rejoiced forever. Kufri Fun World is adjacent to NH 05 on Shimla-Fagu Road at a distance of just 18 km from the main city.



Figure 5.9- Kufri Fun World

(3) Narkanda:- Surrounded by forests and woodlands, Narkanda is a quaint little town in the Shimla district that is popular for skiing in winter. Situated at a height of 9000 feet, this town attracts tourists for its ethereal natural beauty and its beautiful apple orchards. Surrounded by tropical forests and majestic hills, this is

one place that tourists to Himachal Pradesh should not miss especially for its heavy snowfall.



Figure 5.10- Narkanda in Snowfall

Narkanda also has a lake called the Tannu Jabar Lake which is one of the most important tourist attractions. There also exists a temple near the lake which is visited by all tourists and devotees. Narkanda also has various trekking routes which all adventure-seekers should go for. Narkanda has a beautiful hill called Hatu having a temple of Hatu Mata in traditional architecture with elaborate wooden carvings, which one can trek up to. This hill offers a panoramic view of the town below and all adventure lovers traveling to this town should go there. One can also go skiing during the winter.

- (4) Chail:- Chail is a hill station . It is 44 kilometers (27 mi) from Shimla. It is known for its salubrious beauty and virgin forests. The Chail Palace is well known for its architecture: the palace was built as a summer retreat by the Maharaja of Patiala during the British Raj, on the land allotted to him by the British for the former's assistance in the Anglo-Nepalese War. The cricket ground and a polo ground which are there at an altitude of 2,444 m were owned by the erstwhile royal family of Patiala. It is the world's highest cricket ground. Chail is also frequently visited by hikers as it offers wonderful views of the lower Himalayas. It has good trekking points from Junga, Kufri, and Ashwani Khad at Solan. Many Eco camps are held here. There are many camping sites for campers and hikers, so camping in Chail is a most sought-after activity for enthusiasts.
- (5) Hatkoti:- Having many religious spots Himachal is also named DEVBHUMI (land of Gods). Most of those religious spots were dated back to ancient times, HATKOTI is one of them which is located in Shimla. Maa Durga is worshipped here as Hateshwari Maa. The locals believe that Hateshwari Maa is one of the most powerful goddesses of the Hindu religion and that is why this temple is admired by residents of Himachal Pradesh as well as by the people who come to visit Shimla. It is located on the right bank of the Pabbar river, at a distance of about 100 km from Shimla, Hatkoti with its green paddy fields and

almond orchards is a very scenic place. There is also a stone temple complex dedicated to the warrior Goddess Durga built with local materials in an architectural style typical of the valley. Public and private transport buses regularly ply the Shimla to Rohru route, making a halt at Hatkoti to drop off and pick up passengers. Taxis can be availed from Shimla or Rohru to Hatkoti.

## 5.3.2.5 TOURIST ACCOMMODATION

In Chopal, there are about 5 Hotels/home stay with a capacity of 70 beds, 4 Guest Houses with having bedding capacity of 30, and 1 Rain Basera/sarain which also caters to tourists (data from Nagar Panchayat Chopal). A total of 100 beds are only available for tourist accommodation. The biggest rest house is HPPWD Rest House which is located at the entry of Chopal via MDR 74 coming from Sainj.



Figure 5.11- PWD Rest House Chopal

## 5.4 WORK FORCE & OCCUPATIONAL PATTERN

As per Nagar Panchayat Records the total no. of employees are 411 which comprises mainly government, public undertakings, and local body. Further, the employees are segregated as regular, irregular, and daily wagers as shown below in table no. 5.4 –

SECTOR	NO. OF EMPLOYEES			
	REGULAR	IRREGULAR	DAILY WAGER	TOTAL
GOVERNMENT	205	100	60	365
PUBLIC UNDERTAKINGS	40	2	-	42
LOCAL BODY	3	1	-	4
TOTAL	248	103	60	411

Table 5.4.1- Employees in Planning Area

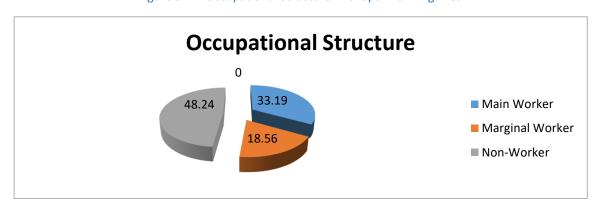
(Source – Nagar Panchayat Chopal)

Table 5.4.2- Occupational Structure in Chopal Planning Area

	Sr.No.	Occupation	Total	Male	%age	Female	%age
	(i)	Cultivators	176	157	89.20	19	10.80
1. Main	(ii)	Agricultural	45	28	62.22	17	37.78
workers	(iii)	Labours	17	8	47.06	9	52.94
		Household,					
	(iv)	industry	783	639	81.61	144	18.39
		workers					
		Other workers					
	Sum		1021	832	76.56	189	23.44
	(i)	Cultivators	345	66	19.36	279	80.64
2. Marginal	(ii)	Agricultural	136	65	47.79	71	52.21
workers	(iii)	Labours	31	11	35.4	20	64.52
		Household,					
	(iv)	industry	59	34	57.63	25	42.37
		workers					
		Other workers					
	Sum		571	176	34.40	395	65.60
Su	m - Total		1484	649	40.86	835	59.14
3. <b>Non-</b>			91	0		<u>-</u>	
workers							
	TOTAL		2505				

The occupational structure in Chopal Planning Area is mainly comprised of Cultivators in the form of Apple orchardists which is the major for of employment here.

Figure 5.12- Occupational Structure in Chopal Planning Area



(Source: - Census data 2011)

## **INFERENCES** -

- As seen in the above data it is evident that the Chopal Planning area has Apple production as the main economic prospect.
- Thus, there is a need to enhance this for secondary economic development in the form of small marketing yards, MSME industries for food production units, etc.
- For the tertiary sector tourism development should be one to be focused on looking at the potential of tourism in Chopal.

# 6 INFRASTRUCTURE PROFILE

## **6.1 TRANSPORTATION**

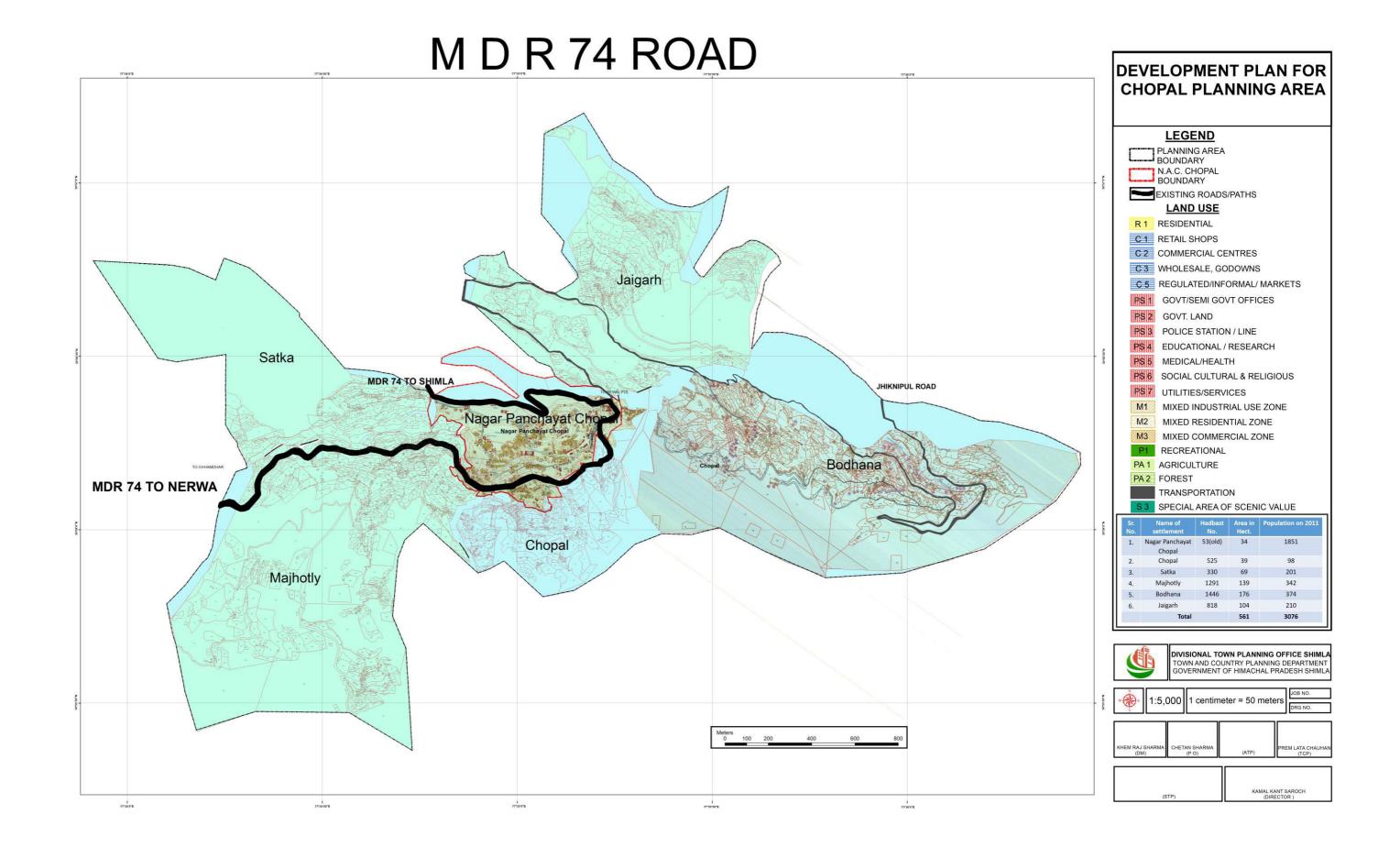
The area existing under the circulation network is 11.67 Hect. which is 29.09% of the total developed Area. There is an existing bus-stand in ward no. 1 which is in dilapidated conditions disallowing bus turning, and parking, and lacks basic services like a waiting area, shopping, restaurant, washrooms, etc. Thus, the area for an upgraded local bus stand, Truck Terminal, car parking, workshop, and petrol pump is required to be proposed.



Figure 6.1- Chopal Bus Stand

# 6.2 ROAD

Chopal Planning area is linked by roads i.e MDR 74 Sainj-Chopal-Nerwa-Shallu road which starts from Theog Kotkhai Hatkoti road and ends on the other side of Pounta Sahib — Hatkoti NH 707. It is around 5 km in the planning area and is a bitumen pucca road that is properly maintained. The other major road through Chopal is the Jhiknipul road to Nerwa passing mainly through Jaigarh and Bodhana. Whereas the old bazaar road that is from Lankra Veer Mandir to Main Bazaar divides Nagar Panchayat Chopal into two parts and is still used by local people. But the issue is that it is not of sufficient width, it's encroached by adjoining shops and houses which causes long traffic jams thus, making it difficult for pedestrians and emergency moment of an ambulance.



### 6.3 VEHICLES AND PARKING

Chopal being a tehsil headquarter has the office of Sub – Divisional Magistrate for registration of vehicles of the whole tehsil. As per records up to date, 6,353 vehicles have been registered in the tehsil out of which around 300 vehicles are alone registered in the planning area.

Considering the no. of vehicles the parking facility is not at par and hence the planning area has a big issue of parking space. Also being the major town in the region for commercial and public activities a lot of cars for day visit increases the load of parking which has to be addressed. To assess the volume of Traffic and Transportation, a survey was carried out by the H.P. Town & Country Planning Deptt. Peak hour traffic with different kinds of incoming and outgoing traffic, from 9.00 A.M. – 10.00 A.M., was surveyed at Tri-Junction at Chopal during the Apple harvesting season.

The detail of passenger car units (PCUs) observed during the Traffic and Transportation survey conducted at the above-referred point by H.P. Town & Country Planning Deptt. is given in the following table 6.1: -

NO. OF PCU **VEHICLE TYPE PARKED CARS COMING** 2-**LMV** HMV/TRUCK **BUS TOTAL** 10 - 300 - 10FROM WHEELER **Minutes Minutes SHIMLA** 14 106 2 4 126 8 3 **NERWA** 9 88 9 2 108 6 6 **TOTAL** 23 194 6 234 14 9 11

Table 6.3.1- Peak Hour Traffic Survey

(Source – TCP Survey)

From the above survey data, it is clear that the overall vehicles coming from Shimla is more whereas the HMV/Truck going towards Shimla is more due to Apple boxes being sent to Sainj, Shimla, Solan, etc, to be sold for a better price.



Figure 6.2- Idle Parking in Planning Area





Idle Parking near Bus Stand

Idle Parking near Petrol Pump

Also, from the survey, it is evident that idle parking is done on the main market leading to traffic congestion on the main MDR 74 road. Thus, proper parking spaces need to be allotted along with multistorey parking provisions.



Figure 6.3- Insufficient ROW

The number of commercial and private vehicles is slowly increasing in Chopal Planning Area. But despite the high vehicle ownership rate, they don't have proper parking lots for vehicles in the market area. Not even a single shopkeeper has their parking arrangement. Therefore, their vehicles are queued along the roadside i.e. MDR 74, on streets, and in the market which is posing threat to passers-by and causing obstruction to smooth traffic movement and even leading to bottlenecks and frequent accidents. Even the provision of community car parking is not available in the town. As such, there is an urgent need for parking lots at spatially appropriate locations in town, to ensure efficient and safe pedestrian as well as vehicular traffic movement.

# **6.4 PUBLIC FACILITIES**

Chopal Planning Area is dotted with numerous public facilities and services like education, health, fire, communication, and banking. As a base station for interior parts of Tehsil Chopal as well as civil Sub-Division, there are institutions like colleges, Industrial Training institutes, and Government and Private Schools to cater to the needs of the local /resident population of the town and that of the region as well.

# 6.4.1 GOVT. OFFICES

The majority of these buildings have been constructed in R.C.C. and Brick masonry. Buildings have been constructed without taking into account the provisions made for earthquake-resistant houses in the relevant codes. This has to be ensured in case of new constructions. There is around 18 Govt. Offices—

Figure 6.4- Govt. Offices in Planning Area

- 1. B.D.O. Office,
- 2. Panchayat Samiti
- 3. P.W.D., Executive Engineer,
- 4. Executive Engineer (IPH),
- 5. Executive Engineer H.P.S.E.B Ltd

- 6. D.F.O. Office,
- 7. Patwari Revenue,
- 8. Civil Court,
- 9. S.D.M. office,
- 10. Tehsildar Office,
- 11. Settlement Officer,
- 12. Police Station,

- 13. H.R.T.C. Office
- 14. Food & Civil Supply
- 15. Treasury Office
- 16. Post office
- 17. BSNL Exchange
- 18. Horticulture & Agriculture Department Office



**Tehsildar Office** 



D.F.O office



Sub-Divisional
Magistrate Court
& Sub Judge
Office

Out of all these Govt. offices, only 8 offices have Govt. vehicles namely; H.P. Public Works Deptt., IPH Deptt., H.P.S.E.B., Civil Hospital, Civil Court, D.F.O. Office, Police Station, and B.D.O. office out of which all offices have their parking facilities in and around the Department office buildings. However, the parking facilities are inadequate because of the increasing number of private vehicles visiting these public offices.

#### 6.4.2 EDUCATION

Chopal Planning Area has one Govt. Degree College, one Government Senior Secondary school, one Private Senior Secondary School, four private High Schools, one Government Middle School, and four private Primary Schools. These educational institutions are also serving a population of adjoining villages outside the planning area. There is an Industrial Training Institute (I.T.I.), presently having 54 students. There is also one private Hotel Management Institute having 42 students. The total intake of these institutions is 3,626 students. The existing educational facilities in Chopal Planning Area are shown in Table 6.2 —

Description No. of No. of No. of Student Institutes Students Teacher Ratio Teachers **GOVERNMENT INSTITUTIONS Govt. Degree College** 1 98 3 33:1 2 Govt. ITI 182 8 23:1 Govt. Sr. Sec. School 1 185 10 19:1 Central Govt. School 0 -\_ **Govt.High School** 1 312 10 31:1 1 **Govt.Middle School** 125 7 18:1 **Govt. Primary School** 1 108 6 18:1 **PRIVATE INSTITUTIONS** 9:1 **Private High School** 4 132 15 **Private Middle School** 5 145 16 9:1

Table 6.4.1- Educational Institutions Details

(Source - Nagar Panchayat Chopal)

132

128

17

11

8:1

12:1

5

6

The majority of Government institutions have proper buildings, space for a playground, and other attached facilities. The private schools do not have adequate buildings, space for a playground, and other required facilities. The Senior Secondary Schools have the facility of Computers and Labs. To equip these schools with modern facilities, it is imperative to provide Computers and necessary Labs for lower-level Schools. Modern Computer facilities are available in a few Private Schools.

**Pvt. Primary School** 

Pvt. Kindergarten



Figure 6.5- Govt. Central Primary School

There are 2 ITI and one Government Degree College in Chopal which is currently in Nagar Panchayat Chopal Building but doesn't have its building and infrastructure. Thus, suitable land needs to be allotted for Degree College.



Figure 6.6- Government Degree College Chopal

## 6.4.3 HEALTH CARE

Chopal Planning Area has Civil Hospital (50 beds) functioning in its building with 6 Doctors. Two Pvt. Clinics are located in the town. Besides this, Chopal Planning Area also has one veterinary dispensary.

Table 6.4.2- Doctor-Patient Ratio

Sr.	Description	No of	No. of Daily	Doctor/Patient
No.		Doctor	Patients.	Ratio
1.	Civil Hospital	6	50	8:1
2.	Primary Health Centre	-	-	-
3.	Veterinary Hospital	1	1	1:1
4.	Private clinic	2	5	2.5:1

(Source - Nagar Panchayat Chopal)

Figure 6.7- Civil Hospital Chopal



#### **6.4.4 RECREATIONAL SPACES**

There are not many recreational spaces in Chopal but still, two of the main Grounds that have multipurpose uses are Sr. Secondary School Ground and Tehsil Ground which are mostly used for various activities as it also has stepped sitting area.



Figure 6.8- Open Public Spaces in Chopal



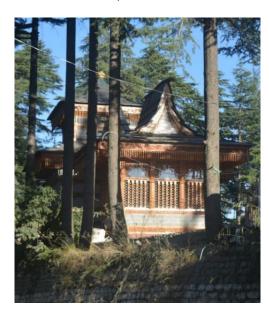
(Source – Field Survey)

### 6.4.5 RELIGIOUS SPACES

There are five places of worship in the Village. The first is of Lankra Bir deity. Its temple is situated near the PWD rest house when one enters Chopal from the Shimla side. It is said that this diety protects the lives and property of the villagers. The second small temple of Shiva is at the peak known as Gadal, 2 kilometers away. One temple is in the Bodhana village in the planning area. Two small temples of Narsingh Bir and Gugga Pir deities are situated in Chaupal. Pir is a deity of the Scheduled Castes and is held in high esteem. In its temple are placed iron chains and a rod. In the middle of the village is a temple of Shirgul Devta. Comparatively, it is a big three-storeyed wooden building. The wooden carvings on the outer part stand eloquent testimony to the skill of crude craftsmen. At the entrance are the carvings of Sahayoks the guards carrying naked swords. There are different motifs of animals and ornamental designs. There is a big courtyard attached to the temple where religious ceremonies are held.







#### 6.4.6 SOCIO-CULTURAL FACILITIES

There are no community halls, libraries, etc specific for socio-cultural activities. Thus, the Chopal planning area has a grave need for these facilities as people here lack socio-cultural facilities.

#### 6.5 OTHER PUBLIC SERVICES

There are many other Public Services in the Planning area as mentioned below -

S.NO. **SERVICE DESCRIPTION FIRE SERVICE** A fire station with one fire tender is located at Satka. 1. **POSTAL SERVICES** For postal services, a sub-post office is located 2. inward no.4 with 3 letter boxes in the planning area. Parking for only one vehicle is available. 3. **BANKING SERVICES** There are six banks in Chopal Planning Area. These are functioning from Pvt. Building. No parking is available on the campuses of these buildings. 4. TELECOMMUNICATION BSNL office is located in a Govt. Building in Satka. **SERVICES** POLICE STATION It is located in ward no. 3 below tehsil ground. It is 5. functioning from its building.

Table 6.5.1- Other Public Services in Planning Area

Modernization of educational and medical institutions, because of technological advancement is required to be done. Requisite basic amenities are required to be provided. The availability of water is required to be improved. Parking facilities require utmost attention. Repair and maintenance of old buildings are needed or retrofitted given seismic conditions. An environmental improvement scheme is also required to be devised and implemented in the town with the involvement of local communities,

Parents Teachers Association (P.T.A.), public representatives, and Non-Government Organizations (N.G.Os.) Medical Institutions located either in congested localities or at lop-sided locations need attention. Proper maintenance and widening of roads is a major concern so that ambulance and firefighting tenders could play effectively. The lack of proper disposal of hospital waste and fire services in the city is a matter of concern.

## 6.6 PHYSICAL INFRASTRUCTURE

#### 6.6.1 WATER SUPPLY

Earlier Water *Baudies* and natural springs were the main sources of potable water to Chopal Area, like Dhadhoo Nala, Takhnol spring, and Bothla from which some water gushes out of this spring. During dry months of summer, the quantity of water decreases or dries up. But over time, Baudies and natural springs are insufficient to cater to the town's increasing population as well as the urbanization process. There are 418 water connections in Nagar Panchayat Chopal. To fulfil growing water demand, Deptt. of I&PH has augmented water sources through Gravity schemes that are —

S. NO.	SCHEME NAME	DESCRIPTION
	Thalan - Chopal	-
GRAVITY	Reuni – Chopal	7 km from Chopal
SCHEME	Chilla Khad	Under Construction
	Lal – Paani	Under Construction
PUMPING	Nauti Khad – Chopal	-
SCHEME	Shata Khad – Chopal	Under Construction

Table 6.6.1- Water Schemes in Chopal

Apart from this as per the census of India 2011, there is the availability of Tap Water-Treated Functioning in the Summer months (April-September). And there are 2 functioning hand pumps at Village Chopal.

# 6.6.2 ELECTRICITY

Presently town is equipped with various capacity transformers, located at different places as per requirement, and 1 substation. At present 10 No. transformers are working within the M.C. area. But still, there is a problem of electricity cut now and then which is a big issue here. At present, there are 214 No. connections of the street light.

# 6.6.3 DRAINAGE

Presently no area of Chopal town is served with a sewerage scheme. For the sewerage scheme, the DPR is being prepared by IPH funding through U.D. Department. But urgently town center that is Nagar Panchayat Chopal is to be connected with a sewerage line and the same for surrounding localities shall be installed in a phased manner. The majority of households have septic tanks & open drains flowing along the residential buildings which cause health and environmental hazard.

As per census data, there is open drainage in form of kaccha drains discharging drain water directly into water bodies but the area is Covered under the Total Sanitation Campaign, or Swachh Bharat Abhiyan. There is only one public bathroom in Dhadu Nalla in Nagar Panchayat Chopal.

#### 6.6.4 WASTE DISPOSAL

Municipal Council, Chopal has a well-organized network of solid waste collection and disposal. Average garbage generation in M.C. Area is 600 kg per day, i.e., around 5 kgs/person/day, which is very high as compared to 0.25kg/person/day generation as per UDPFI norms for small towns. For garbage collection door to door, the collection is done along with litter bins placed throughout the M.C. area at strategic locations. In total, about 10 bins are placed in town as well as along the MDR 74 for waste collection which is now in poor condition.

Figure 6.10- Litter Bins in Planning Area





The collected waste is disposed of through a private pick-up vehicle up to the dumping site. Average waste generation in an urban area, as well as Planning Area, is about 4.0 tons per day. Landfilling & Solid Waste Management Plant is being done at the forest area of Jungle Chopal near the first 180-degree curve in the Planning Area while coming from the Shimla side. The place of dumping is not covered or not made as a proper landfill site and is polluting the whole nearby area.

Figure 6.11- Improper Solid Waste Disposal in Planning Area

#### 6.6.5 TELECOMMUNICATIONS

Bharat Sanchar Nigam Limited (BSNL) has installed 14 no. towers at various locations in Chopal for effective communication networking. As per their record around 15000 landline connections have been given to various consumers in Tehsil Chopal and around 245 connections exist in the local Chopal Area. At present, the BSNL office is running from a government building in Satka.

#### **INFERENCES -**

- In already congested localities like Nagar Panchayat Chopal redevelopment schemes are required to be taken in terms of neighborhood planning.
- Housing must be developed per location aspects of the work area, environmental and ecological imperatives accessibility, and availability of basic services infrastructure and facilities.
- Housing for Govt. employees and workers is to be provided in the vicinity of their work areas so that they do not travel long distances.
- There is an urgent need for Solid waste management and sewage disposal. Also, more public toilet facilities are needed to be proposed for general public use.
- There is a need for parking spaces and road widening at some places where ROW width is not sufficient.
- Old natural water sources are to be revived for use by the general public.
- Most of these private Schools are in rental buildings situated in residential areas
  and are required to have their buildings therefore, space for them has to be
  earmarked in this Development Plan as per their requirements. Schools, which do
  not have space for a playground, are also to be considered.
- The existing Bus Stand is centrally located on the MDR 74 at the bazaar area with a capacity of 4 buses which is insufficient. The traffic system may just collapse if organized parking lots away from the roads are not developed without any further loss of time. The growing number of vehicles is adding overall requirement.

# 7 ENVIRONMENTAL PROFILE

## 7.1 VEGETATION

Having 79.58 Hect. as forest cover in the planning area Chopal forests are famous for their timber and are surrounded by evergreen deodar trees and many other species like Kail, Fir, Spruce, and Oaktree are in plenty in its forests. Besides this natural flora and fauna, orchards of apple, plum, pear, cherry, and apricots also exist. The cultivation of peas and potatoes is very common in this area but still, Apple Orchards remain the main source of income for the people.



Figure 7.1- Surrounding Forest in Chopal

## 7.2 FAUNA

The reserved forest around is infested with a variety of wild animals. Among these, bear, ghural, jackal leopard, langur, monkey, porcupine, and rabbit are common. Among birds, the crow is the commonest type found during the whole year. Other birds found are bat, doves, Chakor, falcon, fowl, magpie, monal, pigeon, sparrow, vulture, Jungle Murga. Some of these may be seen on way to Chopal and others in the village. A variety of snakes and leeches varying in size and color are found. Among domestic animals buffaloes, bulls, cows, dogs, goats, and sheep are common.



Figure 7.2- Road along Forest in Chopal

## 7.3 NATURAL HAZARDS

As per the national Earthquake Seismic Map, Himachal Pradesh comes under Zone-IV and Zone-V, therefore, the susceptibility to an earthquake is very high due to tectonic movement. Development activities including housing are not coming by the provisions of the code meant for earthquake-resistant structures. Therefore, buildings and public utilities including services like water supply, hospitals, and schools are critical areas vulnerable to earthquakes and need to be built as per seismic code to save life and mitigate losses of properties in the event of any disaster. Besides, susceptibility to other related hazards like fire as many structures are old and landslides are also high in Chopal Town as most of the areas have a high slope. Therefore, this Development Plan envisages a strategy to cope with such natural hazards by making rules in this regard. The total area under a steep slope that is above 45 degrees is 165.20 Hect.

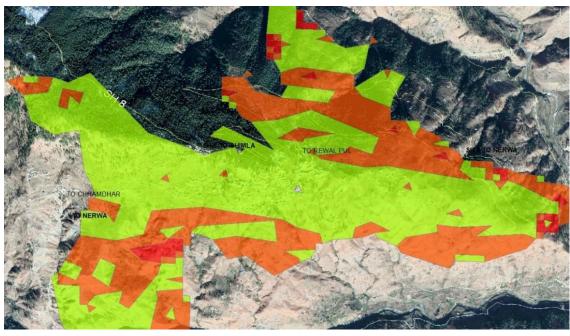


Figure 7.3- Steep slope in Chopal



## 7.4 ENVIRONMENTAL POLLUTION

There is some major pollution i.e., Agricultural Pollution, Environmental Pollution, Water Pollution, Noise Pollution, etc. The adjoining villages of this town are using fertilizer and chemicals for a better apple yield. The town is located along Shimla-Nerwa Tiuni MDR 74 Road and noise pollution is also alarming. The waste and garbage are being dumped in open spaces and also in adjoining forests which is causing environmental as well as water pollution. So far as pollution level is concerned, it is in control as there is no major industrial activity but waste management is poor. Sufficient care has to be taken in this plan to tackle the pollution by proposing dumping sites, STPs, adequate plantation of trees, etc.



Figure 7.4- Open Garbage dumping in Forest in Chopal

**INFERENCES** - Being an area surrounded by Forest with rich flora and fauna, Chopal has a potential for Eco-tourism as wildlife enthusiast tourists could enjoy wildlife safari nearby. Thus, there is a need for collaboration with the forest department to earmark the nearby area for this. As there are steep slopes in the planning area where construction needs to be prohibited. Also, a major issue of solid waste management came to light which needs to be addressed.

# 8 HOUSING

It is essential to study in detail the requirement of housing to prepare a Development plan for Chopal so that besides meeting the existing backlog in housing the provisions of sufficient housing could be made to meet the residential demand of the future population by the year 2041. In any urban area residential land use is larger than any other land use but as far as Chopal Planning Area is concerned; residential land use constitutes only 21.01 hect. which is very less than the total 561 hect. area. The villages which are an integrated part of Chopal have traditionally constructed wooden houses with single and two stories. The new constructions are coming with new modern materials and are generally 4 to 5 stories. The man-made environment is Mushrooming over agricultural land without inadequate implementation of planning norms and improper sub-division of land. The old residential houses are gradually being converted into commercial houses. In the Bazar area of Nagar Panchayat Chopal, the houses have a mixed landuse pattern like Ground Floor adjoining the road is commercial and upperstory residential. This expansion is linear in shape and along the road. The villages in the outskirts still maintain their traditional look except for the buildings along the road, which have gone under considerable changes in their structure due to the spontaneous trend of urbanization and the need to increase the built-up area.

#### 8.1 HOUSING SCENARIO

Chopal town has a mixture of different types of houses i.e., R.C.C., Brick masonry, Load Bearing wall. The Survey conducted by the Town & Country Planning Deptt. reveals that houses made of R.C.C. are higher in number as compared to other types of houses. Around 70% of houses are R.C.C. followed by 30% Load Bearing walls. Preposition of various types of buildings are as below: -

Table 8.1.1- Types of buildings in the Chopal Planning Area

Туре	No. of houses	%Age
R.C.C.	592	70
<b>Load Bearing</b>	253	30
Total	845	100

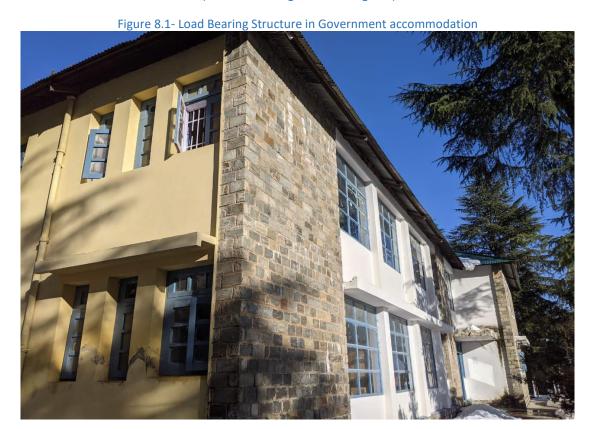
(Source – TCP Departmental Survey)

Besides private residential buildings, there are also houses of the Government Departments as mentioned below in the table –

Table 8.1.2- Government Department Residence in Planning Area

S.NO.	DEPARTMENT	NO. OF BLOCKS
1.	FOREST	15
2.	AGRICULTURE	3
3.	B.D.O.	5
<b>4.</b> P.W.D.		5
5.	I.P.H.	1





(Source - Existing Land use Register)

# 8.2 BUILDING HEIGHTS

The local topography of Chopal is better than other small towns in Shimla District. The Valley side has substantial flat agricultural land dotted with private orchards. Therefore, the majority of residential buildings are now coming onto these agricultural lands in an unplanned manner. 845 buildings have been surveyed and the detail of houses are as under.

Table 8.2.1- Buildings Heights in Planning Area

Sr.No.	Component	No of houses	%Age
1.	Single story	284	33.61
2.	Two stories	368	43.55
3.	Three stories	137	16.21
4.	Four stories	42	4.97
5.	Five stories and above	14	1.66
	Total	845	100

(Source - Departmental Survey)

## 8.3 BUILDINGS CONDITION

The condition of buildings is worked out by surveying and studying building structures and their physical conditions. Survey analysis reveals that 13.84% of buildings are in the age group of 0-10 years old,53.61% of houses are in the age group 10-30 years, 28.76% of houses are in the age group of 30-50 years only 3.79% houses are in the age group of

more than 50 years. The structure which is made of R.C.C. are in good condition. A few old buildings are needed to be conserved to save the hill architecture characteristics. Buildings prone to disaster are required to be either retrofitted or dismantled to mitigate the effects of natural hazards. As far as building roofing is concerned, the share of sloping roofs is comparatively higher than slab. It is, therefore, imperative that slopping roofs are made mandatory to maintain the traditional hill character of the Town.

Table 8.3.1- Building's condition

Sr.No.	The age group of houses (Years)	No of houses	%age
1.	0-10	117	13.84
2.	10-30	453	53.61
3.	30-50	243	28.76
4.	50 and above	32	3.79
	Total	845	100

(Source - Departmental Survey)

## **INFERENCES** -

- There are many load Bearing structures that need to be checked to whether they are structurally stable or not stable to avoid any accidents.
- Many government offices also have their residences but some of the offices don't have which needs to be proposed at the departmental level.
- As the govt. residences are in dilapidated conditions so they need to be regularly maintained
- Also, there are many govt. office heritage structures in Chopal for example forest department office building constructed in 1937 which needs to be renovated and preserved.

## 9 **PROJECTIONS**

# 9.1 POPULATION PROJECTIONS

Chopal being tehsil headquarter and one of the major emerging tourist spots in Shimla, including both residential population and floating population the population projection, becomes very important, to estimate the accurate demand for infrastructure in the future. A population is usually broken down into two categories—the residents, who permanently stay in an area for a considerable amount of time and are part of the official population count, and the floating types, who are in the area but do not live there permanently and are not considered part of the official census count. To have planned and regulated growth of the town, it is imperative to work out the population size of the town meticulously as the same is a prerequisite for regulation of spatial development regulation of town. The population size for the Chopal Planning Area has been worked out for the year 2041 in the following table below —

S. **Projection Method Projected Population** Existing **Population** No. 2011 2021\* 2031\* 2041\* 1. Arithmetic Method 3508 3381 3254 2. Geometric Method 3706 3205 3102 3076 3. Incremental Increase Method 3322 3381 3254 4. **Exponential Growth (Considered)** 3775 4633 5686

**Table 9.1.1 Population Projections** 

For Chopal Planning area exponential growth scenario is being considered as it is likely to register a high population growth rate due to education, employment, and potential for the development of tourism in the hinterland. Horticulture and forest-based industrial activity will also add to the growth of the town in a big way.

Considering 100 as a floating population as per no. of beds available for tourist stay and considering 3 days average stay.

Total floating population =  $100 \times 3 = 300$ 

Thus, TOTAL POPULATION for 2041 = 5700 + 300 = 6000

Based on previous trends and potential for future growth the population of the Chopal Planning Area is likely to increase to 6000 persons in 2041.

# 10 DEVELOPMENTAL REQUIREMENTS & PROPOSALS

The Development Plan caters to the entire Chopal Planning Area, which consists of the Nagar Panchayat area and adjoining rural areas. It envisages the requirements of the population of the Planning Area, the dependent regional population, and the tourist population of this region. Hence proposals have been finalized because of community aspirations, the potential of land, and recommendations that came from, a series of deliberations held with professional expert stakeholders and the community. Chopal Planning Area including fringes is highly eco-sensitive and fragile for development. Needbased construction for original local inhabitants shall therefore be allowable in these areas. Those who have already purchased lands in these areas before the enforcement of provisions of the H.P. TCP Act, 1977 may be allowed need-based two-three storeyed constructions with sloping roofs. The Development Plan is a document of the common man, a document of the public/community, and that of the local bodies, Development Authority, and the Government.

This Development Plan contemplates the allocation of developable land for different uses to meet needs up to the year 2041. Various land uses have been proposed keeping in view the availability of developable land, holding capacity in terms of population and other activities, existing landuse of area, development potentials, conformity of landuse of its surrounding area, threshold population for facilities, location attributes of facilities and services, site characteristics, a convenient distance of work area from residential area and values, etc. The Development Plan for Chopal Planning Area is based on findings of surveys conducted by the Department and data collected from secondary sources.

Projections and requirements for the Development Plan have been worked out in view of the analysis of surveys, studies, and public aspirations and as per the Ministry of Urban Affairs and Employment, Government of India, New Delhi's Urban & Regional Development Plan Formulation and Implementation (URDPFI) Guidelines. The population of the Chopal Planning Area is anticipated to increase to 6000 persons by the year 2041. Out of the total 561 Hect. the land above a 45-degree slope is 165.20 hect. and the forest land is 79.58 hect. summing up 244.78 hect. as Non. Developable area. Now the remaining area can be used for development is 316.22 hect. which would cater to the following requirements are as under —

Table 9.1.1- Land use structure for hill towns

Sr.	Land use	Percentage of Developed Area of	Existing area (Ha.)
No.	category	Small Hill Town (URDPFI)	
1.	Residential	50 - 55	21.01
2.	Commercial	2-3	0.91
3.	Industrial	3-4	0
4.	Public/Semi	8-10	5.17
	-public		

5.	Recreationa I	15-18	1.35
6.	Traffic/ Transportat ion	5-6	11.67
7.	Ecological/A griculture	Balance	520.89
Total			561

(Source – URPFI Guidelines)

## **10.1 PROPOSED LAND USE**

#### **10.1.1 RESIDENTIAL USE**

Residential requirements have been worked out for a total population of 6000 persons. As per URDPFI Guidelines, for small towns in hill areas average density should be 45-75 pph. At the rate of 55 PPH, for the year 2041, for 6000 persons 109.09 Ha. will be required. 21.01 Ha. Is existing thus, additional 88.08 Ha. will be required. It is anticipated that the residential area shall grow in a normal trend as extensions to the existing area due to easy accessibility and availability of infrastructural facilities. To cater to the requirements of housing for the anticipated population of 6000 persons in the Chopal Planning Area, 1500 dwelling units shall be required. At the rate of 4 persons per family. Presently there are 853 dwelling units in Planning Area. Thus, there will be an additional requirement of 647 dwelling units by the year 2041.

The nodal locations, which have a reasonable potential for residential development are proposed to be designated for residential purposes, where only need-based development shall be allowed, provided it satisfies the provisions of zoning regulations envisaged in this plan. As the residential development is to come primarily on the private land and acquisition is not liked by the landowners, the norms of residential area will rest upon them and the entire mechanism of sub-divisions, of land, provisions of basic services infrastructure including water supply, sewerage, drainage, electric supply requisite facilities and services shall be the responsibility of the owners. Strict enforcement of sub-division regulations on one hand and land pooling and reconstruction of schemes by collaborated effects will be essential in order to ensure proper network of roads, requisite services infrastructure etc. for healthy living off the community likely to reside in area.

### 10.1.2 COMMERCIAL USE

Present commercial areas are not functionally located to meet the demands of a growing population. These areas are characterized by high congestion as most shopping streets have in- adequate width. Commercial areas are mixed with residential and other uses. There is no proper separate organized commercial center. Retail business is causing traffic congestion due to a lack of space for parking, loading, and unloading facilities. Storage and godown facilities do not exist. The sale area with the shop is inadequate and

there is a tendency of encroaching upon the road. There are 181 commercial establishments existing in Planning Area, which serves the population of the Chopal as well as the population residing in surrounding villages beyond the Chopal Planning Area limit and the area under these commercial establishments is 0.91 Hect. The additional area required for providing an organized commercial center, local shopping, warehousing, local vegetable market, fruit market, etc. is an area of 2.48 Hect. is required, keeping in view the projected population by the year 2041. At present main commercial trade is located in the heart of the town and will continue to cater to the needs of the town as well as the dependent region. As per URDPFI Guideline, 2016 area requirements for commercial activities in small towns work out to be about 0.2 Ha. / 1000 people thus for 6000 people 1.2 Ha. in addition, a local shopping center as per NBC and URDPFI guidelines serves a population of 15000 and requires an area as per 300 sq.m. per 1000 people thus 0.18 Ha. and 1 shop per 200 people thus for 6000 people it would require 30 shops. There should also be a unit of parking and open space within this commercial center serving 300 to 400 population which should be designed in such a manner that it can also be used as weekly markets operating during non-working hours thus total area should be around 1 hect. Mandi is also required for which the area is to be designated. Informal Bazaar serving a maximum population of 15000 people should have an area of 0.1 Ha. The rest of the commercial area should be left for private establishments as per Mixed land use.

The commercial activities have conspicuous tendency to come up in mixed pattern with residential and the other compatible landuses. For commercial development, **2.48** Hect. of additional land has been proposed as per UDPFI guidelines. Haphazard commercial pursuits, encroachments along the roads and intrusion as well as collision with other activities is presently playing havoc in Chopal planning area. In addition to these various other proposals are —

Table 10.1.1- Commercial Use Proposals

S.	COMMERCIAL	AREA IN	PROPOSAL	DESCRIPTION
NO.	ACTIVITIES REQUIRED	HECT.		
1.	For Small town	1.2	Local Shopping Centre including a Parking and open space	KH. NO. 668 at Jaigarh
2.	Mandi	1	Mandi & Cold Store	Adjacent to Jungle Chopal the starting point of the Planning Area while coming from Chopal.
3.	Local Shopping Centre	0.18	NAC Shopping Complex	At Nagar Panchayat Chopal kh. No. 1752 - 1755

4.	Informal Bazaar	0.1	Informal Bazaar	At Nagar Panchayat Chopal kh. No. 1718
	TOTAL	2.48		

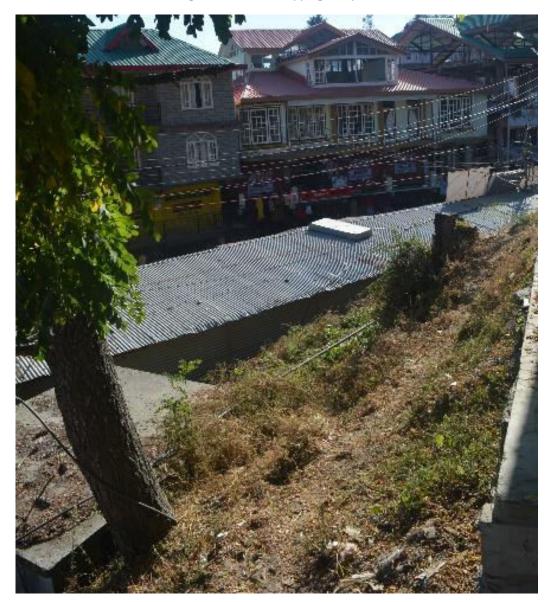


Figure 10.1- NAC Shopping Complex

## **10.1.3 INDUSTRIAL USE**

There are no small industrial units housed in the planning area. The total area under existing industrial use is nil. However, to encourage the local art & craft, to accommodate workshops, steel fabrication, shoe industry, printing press, and MSME industries a total of 1.17 Hect. Industrial land use has been proposed in a Mixed Industrial Zone of 2.35 Hect. allocated mainly on Jaigarh near MDR 74 road and Jhiknipul Road junction. Only eco-friendly or home-based industries shall be allowed in this area to have minimum environmental impact and reduction of increasing pollution.

## 10.1.4 PUBLIC AND SEMI-PUBLIC USE

The public and semi-public use include Govt. and Semi Govt. offices, facilities like education, health, religious and recreational institutions, utilities, and services as well as cremation burial grounds, etc. The services and facilities have been clubbed to work out proposals. An area of 5.17 Hect. exists under facilities, and utility services which also includes Govt. and Semi- Govt. offices. The various requirements as per URDPFI guidelines cover 13 Hect. of land area have been worked out in the following table —

Table 10.1.2 Requirement of area for public facilities and services

Sr. No.	Description	Standard of Level/ Population/Unit	Existing Facility	Future requiremen t	Unit (in Hect.)	Total area (in Hect.)
1.	Degree College	Regional Level	1	1	4.00	4.00
2.	Bachelor of Education (B.Ed.)	Regional Level		1	1.00	1.00
3.	Industrial Training Institute	Regional Level	2(Govt.)	-	1.00	-
4.	Senior Secondary School	10,000-15,000	1(Govt.)	-	1.50	-
5.	High Schools	5,000-6,000	4(Pvt.) & 1(Govt.)	-	1.00	-
6.	Middle Schools	2,500-6,000	5(Pvt.) & 1(Govt.)	-	0.80	-
7.	Primary School	2,000-5,000	5(Pvt.) & 1(Govt.)	-	0.40	-
8.	Nursery School	Two in each sector	6(Pvt.) & 2(Govt.)	-	0.10	-
9.	Allopathic Hospital	Regional level	1	-	4.00	-
10.	Ayurvedic Hospital	Regional Level	-	1	0.50	0.50
11.	Primary Health Center	Sector Level	1	-	0.40	-
12.	Veterinary Hospital	Regional Level	1	-	1.00	-
13.	Veterinary Dispensary	Town Level	1	-	0.40	-
14.	Leprosy Hospital	Regional Level	-	1	0.40	0.40
15.	Community Hall	Sector Level	1	1	0.10	0.10

				ı		
16.	Old Age Home	Regional Level	-	1	0.60	0.60
17.	Stadium	Town Level	-	1	1.50	1.50
18.	Swimming Pool	Town Level	-	1	0.40	0.40
19.	Post Office	Town level	-	1	0.10	0.10
20.	Sub-Post- Office	Sector Level	1	-	0.01	-
21.	Telephone Exchange	Town Level	1	1	0.10	0.10
22.	Electric Sub Station	One for Two sector	1	-	0.10	-
23.	Police Station	Town Level	1	-	0.40	-
24.	Jail	Town Level	-	1	1.00	1.00
25.	Police Post	Sector Level	-	-	ı	-
26.	Fire Station	Town Level	1	-	0.40	-
27.	Petrol/Diesel Filling Station	One for two Sector	1	1	0.40	0.40
28.	Cremation Ground	One for two Sector	1	-	0.40	-
29.	Cemetery	Town Level	-	1	0.20	0.20
30.	Sewerage treatment Plant	Town Level	-	1	0.80	0.80
31.	Cinema	Town Level	-	1	0.20	0.20
32.	Library	Town Level	-	1	0.20	0.20
33.	Club	Town Level	-	1	0.40	0.40
34.	Electric Sub- Station	Town Level	-	1	0.10	0.10
35.	Disaster Management Centre	20,000	-	1	1.00	1.00
	Total	-	-	-	-	13.00

The proposed area under different activities like education, medical/health, socio-cultural, religious, utilities and services, cremation and burial grounds, solid waste disposed of site, etc. comes to 18.17 Hect. Mostly Govt. land is earmarked for this use. Various other proposals are as under —

Table 10.1.3- Public Use Proposals

Proposal	Area	Description
	(Hect.)	
Degree College	4.00	Kh. No. 1431,1117 in Bodhana
Bachelor of Education(B.Ed.)	1.00	Kh. No. 525, in Village Chopal
Ayurvedic Hospital	0.50	Kh. No. 416 & 433 in Village Chopal and Kh.
		No. 1247, in Nagar Panchayat
Leprosy Hospital	0.40	Kh. No. 671, in Jaigarh
Community Hall	0.10	Kh. No. 484, in Village Chopal
Old Age Home	0.60	Kh. No. 25 & 32, in Nagar Panchayat
Stadium	1.50	Kh. No. 525, in Village Chopal
Post Office	0.10	Kh. No. 1333, in Nagar Panchayat
Telephone Exchange	0.10	Kh. No. 1312, in Nagar Panchayat
Jail	1.00	Kh. No. 817, in Majholtly
Petrol/Diesel Filling Station	0.40	On Private Land
Cemetery	0.20	Kh. No. 486, in Jaigarh
Sewerage treatment Plant	0.80	Kh. No. 290, in Village Chopal
Cinema	0.20	Kh. No. 457 in Village Chopal and Kh. No.
		1350, in Nagar Panchayat
Library	0.20	Kh. No. 1482, in Nagar Panchayat
Club	0.40	Kh. No. 1597, in Nagar Panchayat
Electric Sub-Station	0.10	Kh. No. 145, in Village Chopal
Disaster Management	1.00	Kh. No. 1431, in Bodhana
Centre		

### 10.1.5 PARKS AND OPEN SPACES USE

There are not many recreational spaces in Chopal but still, two of the main Grounds that have multipurpose uses are Sr. Secondary School Ground and Tehsil Ground which are mostly used for various activities as it also has stepped sitting area. The area under these two grounds is 1.35 Hect. An area of 29.80 Hect. the land is proposed for providing parks and open spaces by 2041 in Planning Area. Out of this a Neighbourhood Park of 1.63 Hect. is proposed around Lankra veer Temple in Nagar Panchayat Chopal.

### **10.1.6 TRAFFIC AND TRANSPORTATION USE**

An area of 11.67 Hect. exists under Traffic and Transportation use whereas an area of 6.10 Hect. is additionally required to meet the future requirement by the year 2041. A detail of the area requirements is worked out for these uses: -

Bus Stand Upgradation with modern facilities on the current location.	
Multistorey Parking facility in between the Nagar Panchayat Chopal and Bus stand.	
Upgradation of Intersection of MDR 74 and Jhiknipul road to make it a proper Chowk.	

#### **10.1.7 TOURISM USE**

There is potential for the development of tourism activities in the Planning Area, however, specifically, there is nil area over earmarked or existing under this use which needs to be addressed properly in the Development Plan. Therefore, 26.80 Hect. land has been proposed at Jungle Chopal for Eco tourism and other Tourism related activities like

### 10.1.7.1 ECOTOURISM -

Ecotourism India has developed recently, for the concept itself is a relatively new one. Ecotourism entails traveling to places that are renowned for their natural beauty and social culture while making sure not to damage the ecological balance.



Ecotourism pertains to a conscious and responsible effort to preserve the diversity of a naturally endowed region and sustain its beauty and local culture. Indians have been known for ages to worship and conserve nature. So, the growth of ecotourism in India is natural. Also, the government of India has set-up the Ministry of Tourism and Culture to promote ecotourism in India alongside other types of tourism.

#### 1. Nature Walk:-

A nature trail or nature walk is a specially developed hiking trail or footpath along which there are marked stations or stops next to points of natural, technological or cultural interest. These may convey information about, the, flora, fauna, and soil science. geology or cultural history. Longer trails, that link more widely spaced natural phenomena or structures together, may be referred to as themed trails or paths. A walk-in nature brings us serenity by allowing our over-stimulated modern minds a chance to rest. It helps us to relax, it lowers our stress, depression and anxiety levels, it increases our attention spans and memory and it provides a source of gentle exercise. Spending time in the natural world slows us down and makes us feel at peace; thus, nature walks can be very effective as supplemental therapy for addiction, anxiety, and high levels of stress. Chopal has one of the richest forests in Himachal. Deodar, kail, fir spruce, and ban trees are in plenty in the forests of Chopal. The stations provide imaginative and interactive ways to experience nature. The station also provides imaginative and interactive ways to experience nature. So, a nature walk is one of the options for promoting tourism.

## 2. Camping: -

The topography of the area attracts hiking and camping activities in the area. Churdhar aka Churi-Chandni Dhar (Bangles of snow ridge) is the highest peak in the outside Himalayan range. The peak is surrounded by a 56 square km forest sanctuary, which makes the trekking a delightful affair. The trek is a steep hike inside a dense Deodar Forest. Churdhar is 121km from the Chopal so a proposal for camping in the area shall be given to attract tourists.



#### 10.1.7.2 Wildlife Tourism

Chopal is very rich in forest cover which has some beautiful and exotic species of wildlife. Wildlife tourism would be promoted by proposing some areas of Jungle Chopal for wildlife tourism.





10.1.7.3 Wellness Tourism

The potential of wellness systems, developed through centuries of the wisdom of this ancient civilization would be fully tapped. This is being done by positioning India as a center of Ayurveda, Yoga, Sidha, Naturopathy, etc. together with the spiritual philosophy that has been integral to the Indian way of life. The Ministry of Tourism has drafted guidelines for wellness tourism. These guidelines address issues regarding making available quality publicity material, training and capacity building for the service providers, participation in international & domestic Wellness related events, etc. Mushrooming of wellness centers in the country has given rise to the concern for quality service. The Guideline for Accreditation of wellness centers has been developed by the National Board for Accreditation of Hospitals & Healthcare Services (NABH) in consultation with AYUSH and released during the workshop on wellness tourism organized by the Ministry of Tourism on 15 Feb 2011. The Ministry of Tourism has also extended its Market Development Assistance (MDA) scheme to wellness tourism service providers including accredited wellness centers. Presently the wellness centers accredited by State Tourism Departments are also eligible for the MDA. After the accreditation guidelines of NABH is in place, all wellness centers seeking MDA would be asked to be as close to the accreditation guidelines of NABH as possible. The initiative of accreditation of wellness centers by NABH and AYUSH has been greatly driven by the Ministry of Tourism as also consultation with the Wellness Tourism Service Providers, State Governments, and other stakeholders.



#### 1. Meditation Centre: -

Meditation may be used to reduce stress, anxiety, depression, and pain, and increase peace and perception. There are many schools and styles of meditation within Hinduism. In pre-modern and traditional Hinduism, Yoga and Dhyana are practiced to realize the union of one's eternal self or soul. So a meditation center is a very good option to increase tourism in Chopal. The climate and atmosphere of the Chopal are good for meditation. Because for meditation the surrounding area should be peaceful. The potential of wellness systems developed through centuries of the wisdom of this ancient civilization would be fully tapped. This is being done by positioning India as a center of Ayurveda, Yoga, Sidha, Naturopathy, etc. together with the spiritual philosophy that has been integral to the Indian way of life.



## 10.1.7.4 Pilgrimage Tourism

### 1. Religious Circuit of Planning area -

There is a huge scope for this as there are five places of worship in the Village itself. So a Religious Circuit is proposed in the planning area starting from the first Temple of Lankra Bir deity. Its temple is situated near the PWD rest house when one enters Chopal from the Shimla side. It is said that this diety protects the lives and property of the villagers. The second small temple of Shiva is at the peak known as Gadal, 2 kilometers away. One temple is in the Bodhana village in the planning area. Two small temples of Narsingh Bir and Gugga Pir deities are situated in Chaupal. In the middle of the village is a temple of Shirgul Devta. Comparatively, it is a big three-storeyed wooden building. The wooden carvings on the outer part stand eloquent testimony to the skill of crude craftsmen. At the entrance are the carvings of Sahayoks the guards carrying naked swords. There are different motifs of animals and ornamental designs rich in the cultural heritage of Chopal.



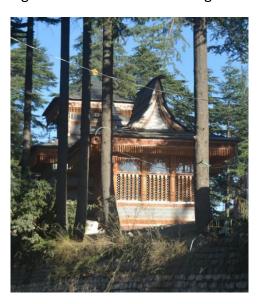


Figure 10.2 Temples under Religious Circuit in Chopal (Source – Author)

## 2. Churdhar Temple -

Located in the Sirmor district of the state, it's a place of great religious importance to the north Indian Hindus. The peak is highest in the Sirmour and outer layers of the Himalayas. At the top of the Churdhar peak, a giant statue of Lord Shiva amazes you as well as takes you back to the tales of great Indian epics like Mahabharta and Ramayana. Trekking to a peak at 3647 meters above sea level through a tough trek of 7 KM, passing through the changing scenes of the diverse nature, and observing the culture, when you place your feet on the peak point, you feel satisfied and overwhelmed with earth's spectacular beauty.





#### **10.1.8 FOREST USE**

The existing area under forest use is 79.58 Hect. The area under forest use has been kept intact given its ecological importance and the essence of the Forest Conservation Act-1980, except a piece of 26.80 Hect., which is proposed to be developed as a Special area for Eco-Tourism use through the forest wildlife authorities itself.

#### **10.1.8 AGRICULTURE USE**

The total area existing under agriculture use is 441.31 Hect. an area of 166.08 Hect. as shown in table 9.2.1 is an additional area requirement under different land uses would be proposed from existing agricultural use. Rest of the area i.e., 275.23 Hect. shall remain as such under this use. There are rich agricultural land and orchards in and around the town which are proposed to be preserved. The urban activity shall be permitted on Barran/Banjar and ghasni lands only and in the green belt outside the urbanized limits all activities shall not be permissible.

## **10.1.9 WATER BODIES USE**

The existing land under the water bodies/ steep slopes is 165.20 Hect. which will not be disturbed and shall remain as such under this use as it mainly falls under agriculture and forest land use.

Table 10.1.4- Proposed Landuse for Chopal Planning Area

Sr. No	Land-use	Existing	Total Proposed	Existing	Proposed	Existing	Proposed	As per URDPFI
		Area (Ha.)	Area (Ha.)	% of Total Area	% of Total Area	% of Developed area	% of Develope d area	Guideline s
				А	. Developed A	Area		
1	Residential	21.01	109.09	3.75%	19.45%	52.38%	52.91%	50 – 55
2	Commercial	0.91	3.39	0.16%	0.60%	2.27%	1.64%	2-3
3	Industrial	0	1.17	0%	0.21%	0%	0.57%	3 – 4
4	Pub. & semi Public	5.17	18.17	0.92%	3.24%	12.89%	8.81%	8 – 10
5	Recreational	1.35	29.80	0.24%	5.31%	3.37%	14.45%	15 – 18
6	Traffic & Transportation	11.67	17.77	2.08%	3.17%	29.09%	8.62%	5 – 6
7	Tourism	-	26.80	-	4.78%	-	13.00%	
	Sub Total (A)	40.11	206.19	7.15%	36.75%	100%	100%	
			B. Un-devel	oped Area (	Including Ste	ep Slopes & w	ater bodies)	



8	8	Agriculture	441.31	275.23	78.66%	49.06%		
Ç	9	Forests	79.58	79.58	14.19%	14.19%		
		Sub Total (B)	520.89	354.81	92.85%	63.25%		
		Total (A+B)	561.00	561.00	100%	100%		

Figure 10.3- Proposed Landuse for Chopal Planning Area

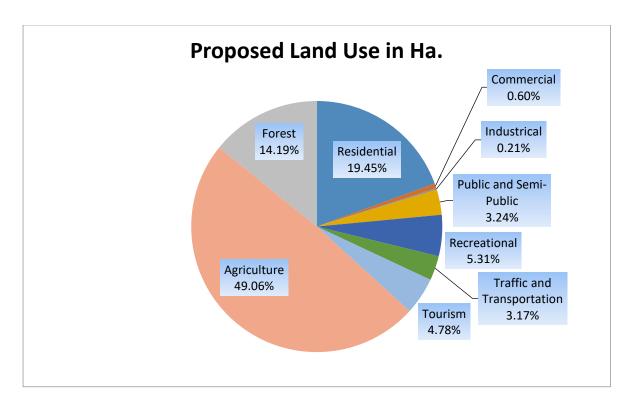


Figure 10.3- Proposed land Use -2041

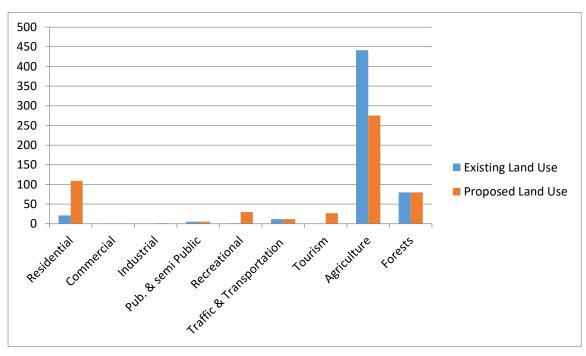


Figure 10.4- Existing and Proposed Land Use

- The existing natural growth of Chopal Town is exerting heavy pressure on the existing infrastructure being the hub of administrative and other activities at the Sub-Division level.
- In the future, it is likely to attract more population from nearby areas which would further increase problems of already existing unplanned and unauthorized construction activities.
- The Nagar Panchayat Area of Chopal is already overpopulated and cannot combat with increasing load of population and activities. If an additional population as per natural growth and migration is allowed to settle in the ambiance of the main Chopal Town & Planning area in a systematic manner the interests of the already settled population can only be safeguarded from further environmental deterioration and ruin.

## 11 IMPLEMENTATION

## 11.1 PRIORITIES & PHASING

The development Plan is a statutory tool to guide the physical development of the town from 2022 to 2041 A.D., but simultaneously there must be a review of each phase to incorporate all alterations in priority. Implementation of the Development Plan is divided into four phases 2022-2026, 2027-2030, 2031-2035, and 2036-2041 as per the priorities mentioned above. Therefore, the first phase of the Development Plan is very important as it gives the lead to the development pattern that is to be followed in subsequent phases. And as per URDPFI guidelines various proposals are classified under four priority that is —

Table 11.1.1- Priority and Phasing of Proposals

PRIORITY	PHASE	DEVELOPMENTAL PROPOSAL					
		Multistorey Parking facility in between the Nagar Panchayat Chopal and Bus stand.					
		Neighbourhood Park of 1.63 Hect. is proposed around Lankara Bir Temple in Nagar Panchayat Chopal					
Essentials	First	Sewage lines and Sewerage treatment Plant on Kh. No. 290, in Village Chopal					
(top priority)	Phase	Solid waste Management at Waste Collection Site					
	2022- 2026	Nagar Panchayat Shopping Complex at Nagar Panchayat Chopal kh. No. 1752 - 1755					
		Religious Circuit of Temples in Chopal planning area					
		Upgradation of MDR 74 and Jhiknipul road junction to make					
		it a Round-about intersection.					
		Electric Sub-Station on Kh. No. 145, in Village Chopal					
		Community Hall Kh. No. 484, in Village Chopal					
		Old bazaar road to be having one-way traffic flow that is					
		from Lankar Veer Mandir to Main Bazaar.					
		Bus Stand Upgradation with modern facilities on the					
		current location					
Necessary	Second	current location  Eco-Tourism Development of 26.80 Hect. in Jungle Chopal					
Necessary (2nd priority)	Second Phase 2027-	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal Local Shopping Centre including Parking and open space at					
	Phase	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal					
	Phase 2027-	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal Local Shopping Centre including Parking and open space at KH. NO. 668 at Jaigarh					
	Phase 2027-	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal Local Shopping Centre including Parking and open space at KH. NO. 668 at Jaigarh Degree College at Kh. No. 1431,1117 in Bodhana					
	Phase 2027-	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal Local Shopping Centre including Parking and open space at KH. NO. 668 at Jaigarh  Degree College at Kh. No. 1431,1117 in Bodhana Old Age Home at Kh. No. 25 & 32, in Nagar Panchayat					
	Phase 2027-	Eco-Tourism Development of 26.80 Hect. in Jungle Chopal Local Shopping Centre including Parking and open space at KH. NO. 668 at Jaigarh Degree College at Kh. No. 1431,1117 in Bodhana Old Age Home at Kh. No. 25 & 32, in Nagar Panchayat Mandi & Cold Store is adjacent to Jungle Chopal the starting					

		Informal Bazaar at Nagar Panchayat Chopal kh. No. 1718
		Bachelor of Education (B.Ed.) College at Kh. No. 525, in
Acceptable	Third	Village Chopal
and desirable	Phase	Stadium at Kh. No. 525, in Village Chopal
(3rd priority)	2031-	Post Office at Kh. No. 1333, in Nagar Panchayat
	2035	Leprosy Hospital at Kh. No. 671, in Jaigarh
		Library at Kh. No. 1482, in Nagar Panchayat
		Telephone Exchange at Kh. No. 1312, in Nagar Panchayat
Deferrable	Fourth	Jail at Kh. No. 817, in Majholtly Kh. No. 817, in Majholtly
(4th priority)	Phase	Cemetery at Kh. No. 486, in Jaigarh
	2036-	Club at Kh. No. 1597, in Nagar Panchayat
	2041	Disaster Management Centre at Kh. No. 1431, in Bodhana

#### 11.2 COSTING AND IMPLEMENTATION

The Development Plan does not envisage any acquisitions for residential, commercial, and infrastructure development. Most of the proposals are being made on Govt. land. However, some acquisition is imperative for the development of parking sites and traffic improvement as well as other aspects.

To start with, it is proposed to have a revolving fund with a seed capital of Rs. 60 Crore approximately for giving effect to various proposals under this plan. The state-level urban development authority or Local Bodies/ Panchayati Raj Institution shall be responsible for the overall implementation of the plan document. However, the majority of the proposals are required to be implemented by concerned state Government Departments as a part of their routine functions. Therefore actual costing of the plan proposals shall be worked out by the respective agencies as and when these are taken up in hand. The majority of the residential and commercial development may come up in the private sector only following the zoning regulations.

As far as arterial roads and major proposals including Government and Semi-Government offices, bus terminals, warehousing, and wholesale market, Truck Terminal, parking lots, and infrastructural networks are concerned, the land has to be arranged, acquired, and same be implemented by the Development Authority and respective agencies. Therefore, the entire funding is to be done through the inbuilt mechanism as envisaged in the Development Plan.

### 11.3 FINANCING AND RESOURCE GENERATION

Development for Chopal is going to be a self-financing proposition by making the optimum utilization of spatial planning know-how. Development Authority, Local Bodies/Panchayati Raj Institutions shall be responsible for the creation of serviced land and its optimum utilization, on one hand, and implementation of vital provisions like bye passes, Truck Terminals, bus terminals, parking at strategic locations, on the other. The finances

can also be geared up by BOT mode. In case of poor allocation of funds for the development of proposed infrastructure, private entrepreneurs have to be invited.

The cost of residential development including road network, sewerage, drainage, electricity, parks, open spaces, parking, and other amenities to be borne by the landowners, through the mechanism of land pooling and reconstitution and thereby enhancement of land values. The benefits likely to occur from the sale of plots would be sufficient to meet the cost of development.

The wholesale and warehousing are to be developed by the State Agricultural Marketing Board. The Department of Industries / H.P. State Industrial Development Corporation will be responsible for the development of MSME. The Bus terminal is to be developed by Himachal Pradesh Bus Stand Development Authority. Similarly, the respective agencies and Govt. undertakings by raising resources from the beneficiaries will be responsible for the development of utilities, facilities, and services including water supply, sewerage, drainage electrification, telephone, etc. at the town level.

Chopal also being a potential tourist and multifunctional town, financing of the plan is required to be geared by the Development Authority by raising resources from the betterment levies on development pursuits. Conversion of land use may be charged suitably given enhancement of land values. The development that has come up along the MDR and public roads is required to be suitably charged.

The various resource generation measures by statuary provisions and regulatory control are as under.

- a. Building Use regularization fee.
- **b.** Development charges and betterment levies.
- **c.** Layout, Sub-Division, and Building permission fee.
- d. Vacant land tax.

The town development fund shall be maintained by the concerned Development Authority for the Development of infrastructure infrastructural, landscaping, and beautification of the town. Economically Weaker Sections of the society shall not be charged for basic amenities.

### 11.4 IMPLEMENTATION

Besides landowners, Nagar Panchayat, Gram Panchayats, and Development Authority shall be responsible for the creation of serviced land. However overall control on implementation of proposals of Development Plan in terms of landuse, zoning, and subdivision regulations shall vest with the Director, Town & Country Planning Department, Himachal Pradesh. To assess the achievements of each phase to cater to unforeseen

factors, it is envisaged to review this plan after the completion of the period of each phase.

To ensure coordination, monitoring, and effective implementation of the Development Plan, a plan implementation Committee shall be constituted comprising of the following members.

Table 11.4.1- Plan Implementation Committee

Sr. No.	Designation	
01	A.D.M. (Shimla)	Chairman
02	S.D.M. (Chopal)	Member
03	Executive Engineer, PWD	Do
04	Executive Engineer, I&PH	Do
05	Executive Engineer,	Do
	Electricity	
06	Divisional Forest Officer	Do
07	Block Development Officer	Do
08	Deputy Superintendent	Do
	Police	
09	Executive Officer M.C.	Do
10	Tourism Officer	Do
11	Tehsildar Chopal	Do
12	President, M.C.	Do
13	Gram Panchyat Pradhans	Do
14	Assistant Town Planner,	Member Secretary
	TCP. Deptt. Chopal	

# 12 **ZONING AND SUB-DIVISION REGULATIONS**

- Regulations for the following activities shall be as per the Appendix-1 to 9 (as amended from time to time) of the Himachal Pradesh Town and Country Planning Rules 2014-
  - (i) Sub-divisions of land, development of land, or construction of the building.
  - (ii) Industrial use.
  - (iii) Development of Information Technology Park.
  - (iv) Solar Passive Building Design.
  - (v) Development of a barrier-free environment for the person with disabilities in public and semi-public buildings and recreational areas within the limits of economic capacity.
  - (vi) Collection of Rain Water Harvesting Tank.
  - (vii) Development of Real Estate.
  - (viii) Prescribed limits for development activities are exempted under section 30-A of the Himachal Pradesh Town and Country Planning Act, 1977 (Act, No. 12 of 1977).
  - (ix) Installation of Communication Towers.
- 2. In the public interest and the interests of the town designer or any other material consideration, the Director may relax the minimum size /area of the plot, plot coverage, setbacks, number of stories and floor area ratio (F.A.R.), etc. as well as change of land use.
- **3.** Risk-Based Classification of Buildings

To mitigate any disasters, risk-based buildings have been classified into three categories namely, -

- i. High-Risk Buildings
- ii. Moderate Risk Buildings
- iii. Low-Risk Buildings

## **Risk-Based Classification of Buildings**

Sr. No.	Risk	Buildings		ng sio *
1	2	3	n Time 4	
1.		Residential Buildings		
(a)	High	Group Housing Schemes, above 3 Storey buildings, buildings on slopes more than 30 degrees, any building raised on landfill, reclaimed land, buildings 2.00 M above the Highest Flood Level (HFL) up to a distance of 10.00 Metre, buildings with communication towers and buildings falling under the corridor of HT/LT lines.	Within days.	60

(b)	Moderate	All 2-3 story buildings, buildings on slopes above 15º	Within	30
		and up to 30º.	days.	
(c)	Low	Single Storey Buildings Constructed on Slope Less than	Within	20
		15º.	days.	
2.	. Commercial Buildings			
(a)	High	Commercial Shopping Complexes, Multiplexes,	Within	60
		Tourism Units, Marriage palaces, Automobile	days.	
		Showrooms, any building raised on landfill, reclaimed		
		land, buildings within the minimum setback from HFL		
		as prescribed in respective DPs, buildings with		
		communication towers, and buildings falling under the		
		corridor of HT/LT lines.		
(b)	Moderate	Double story shops	Within	30
			days.	
(c)	Low	Single story shops	Within	20
			days.	
3.	Industrial Buildings			
(a)	High	Buildings above two stories, any building above 10	Within	60
		meters in height, any building raised on landfill,	days.	
		reclaimed land, buildings within the minimum setback		
		from HFL as prescribed in respective DPs, buildings with		
		from HFL as prescribed in respective DPs, buildings with communication towers, and buildings falling under the		
(b)	Low	communication towers, and buildings falling under the	Within	20
(b)	Low	communication towers, and buildings falling under the corridor of HT/LT lines.	Within days.	20
(b)	Low	communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10		20
	Low	communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.		
4.		communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.  Public and Semi-Public	days.	
4.		communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.  Public and Semi-Public  All buildings except for the buildings mentioned under	days.	60
4. (a)	High	communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.  Public and Semi-Public  All buildings except for the buildings mentioned under the Low-Risk category	days. Within days.	60
4. (a)	High	communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.  Public and Semi-Public  All buildings except for the buildings mentioned under the Low-Risk category	Within days.	60
4. (a) b)	High	communication towers, and buildings falling under the corridor of HT/LT lines.  Single-story buildings of 10 meters or less than 10 meters in height.  Public and Semi-Public  All buildings except for the buildings mentioned under the Low-Risk category  Toilets, rain shelters, pump houses, and crematoriums.	Within days.	60

• As amended from time to time by the State Govt.

# Note: -

- (i) The High-Risk category of construction will be supervised by Registered Private Professionals and the Structural Safety Certificate & Design will be submitted by the Registered Structural Engineers.
- (ii) The Moderate Risk and Low-Risk Category buildings would be given fast-track approval.

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