Land Use/Land Cover Pattern And Changes
The previous chapter discussed the socio-cultural profile of the study area. Social aspects like the social groups, the rural and urban settlement patterns, land attributes, the rural-urban fringe and the urban sprawl have been discussed. The cultural aspects covered are the population growth, density, distribution, literacy pattern, sex-ratio and migration. Several Socio groups staying at McLeod Ganj and their settlement patterns had been discussed. The growth of population and the factors affecting the density and distribution had also been put forth.

The present chapter covers the land use pattern and changes in land use. The land management and its modification has been discussed. The spatio-temporal changes taking place at McLeod Ganj have also been focused upon. Last but not the least peoples perception on Land use have also been mentioned in detail.

4.1 LAND USE/LAND COVER

Land use simply refers to the human use of land. Land use involves the management and modification of natural environment into built environment such as fields, pastures and settlements. If we take into consideration the land use pattern in India we come across a finding that the total geographical area of India is 3.28 million sq. km. The land under permanent pastures has decreased, land under net sown area has also decreased and so is the land under forests. The Table mentioned below shows the pattern of land utilization in Himachal Pradesh highlighting the area occupied by each land use in hectares.
Table-4.7


<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Land under various categories</th>
<th>Area in hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Forests</td>
<td>1094</td>
</tr>
<tr>
<td>2.</td>
<td>Not available for cultivation</td>
<td>1159</td>
</tr>
<tr>
<td>3.</td>
<td>Permanent pastures other grazing lands</td>
<td>1472</td>
</tr>
<tr>
<td>4.</td>
<td>Land under Misc. tree crops &amp; groves</td>
<td>64</td>
</tr>
<tr>
<td>5.</td>
<td>Fallow land other than current fallow</td>
<td>16</td>
</tr>
<tr>
<td>6.</td>
<td>Culturable waste</td>
<td>119</td>
</tr>
<tr>
<td>7.</td>
<td>Current Fallow</td>
<td>86</td>
</tr>
<tr>
<td>8.</td>
<td>Net Area Sown</td>
<td>551</td>
</tr>
<tr>
<td>9.</td>
<td>Area Sown more than once</td>
<td>405</td>
</tr>
<tr>
<td>10.</td>
<td>Total cropped Area</td>
<td>957</td>
</tr>
<tr>
<td>11.</td>
<td>Reporting Area for Land use</td>
<td>4532</td>
</tr>
</tbody>
</table>

Source: Statistical Abstract, India 2003, pp. 24-25

Same is with the state pattern of land use with the increasing population; the rise in settlements has increased to accommodate the teeming thousands every year.

Similarly the land-use or land-utilization pattern in the state has changed too. The net sown area, land under forest cover and pastures has decreased.
Photo Plate 4.1 (Prayers at Kumbum Monastery)
Photo Plate 4.2 (Monks residing in the Monastery)
Photo Plate 4.3 (The Prayer Temple)
Photo Plate 4.4 (Language not a Barrier)
Photo Plate 4.5 (Congested Street at Mcleod Ganj)
Photo Plate 4.6 (Concrete Constructions at Mcleod Ganj)
During the field visit to McLeod Ganj and its surrounding area, the author came across certain places where illegal construction on the hill slopes was taking place at fast pace. Hardly any unoccupied green area at McLeod Ganj could be seen. Wherever a little place could be seen, huge machines and lot of man force was deployed to construct more buildings. The increase in the influx of tourist and sudden rise in the population had led to construction of more concrete buildings. But the point to be taken care of is that most of the buildings are being constructed without a legal permit.

The case is not only with McLeod Ganj even areas around it like Bhagsunag, Forsyth Ganj, Naddi and Dharamkot are slowly and gradually converting into small sub-urbs with concrete construction going on. These places which once used to be typical villages with agriculture as the main activity are now flourishing with business activities of all kinds. The local villagers are either selling off their agricultural land or are themselves using it to construct hotels, guest-houses and restaurants. Hence the land under cultivation is decreasing.

Reportingly the forest area is also declining. It may be attributed to the urban sprawl in the area. McLeod Ganj is too congested for any further development. The surrounding villages are also turning up with new buildings, more tourist inflow and good business opportunities which have left the locals with no other good choice. Felling of trees is a common sight while moving up towards Bhagsunag, Naddi and Dharamkot.

Most of area is not fit for cultivation as either it is lying on the slopes and is more prone to erosion or it is at higher reaches where snowfall and unfertile soils make agriculture unfit.

Area under permanent pastures and other grazing land is also diminishing. Cattle rearing is not a major activity of the area except for the nomads, i.e. the Gaddis and Gujjars for whom pastures are only open during the Summer season as in the winters the area remains under snow cover.
During my field visit to the place the author could not locate many areas where the land had been given to miscellaneous tree crops and groves. The author could only find few places where plantation of almonds and apricots was there but very less.

**TABLE -4.2**

PROPER LAND USE OF PLANNING AREA 2001

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Use</th>
<th>McLeod Ganj</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential</td>
<td>70.80</td>
</tr>
<tr>
<td>2</td>
<td>Commercial</td>
<td>53.80</td>
</tr>
<tr>
<td>3</td>
<td>Tourism</td>
<td>35.50</td>
</tr>
<tr>
<td>4</td>
<td>Parks and open space</td>
<td>10.40</td>
</tr>
<tr>
<td>5</td>
<td>Traffic and Transportation</td>
<td>19.50</td>
</tr>
<tr>
<td>6</td>
<td>Agriculture, Forest &amp; Barren land</td>
<td>428.10</td>
</tr>
<tr>
<td>7</td>
<td>Rivers and nallah</td>
<td>14.50</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>632.60 Hectors</strong></td>
</tr>
</tbody>
</table>

Source: Town and Country Planning Department; Socio- Economic Survey, 2000
TABLE –4.3
ADDITIONAL REQUIREMENT OF URBANISABLE
PLANNING AREA

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Use</th>
<th>McLeod Ganj</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential</td>
<td>2.00</td>
</tr>
<tr>
<td>2</td>
<td>Commercial</td>
<td>1.00</td>
</tr>
<tr>
<td>3</td>
<td>Tourism</td>
<td>4.00</td>
</tr>
<tr>
<td>4</td>
<td>Parks and open space</td>
<td>25.00</td>
</tr>
<tr>
<td>5</td>
<td>Traffic and Transportation</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>32.00 Hectors</strong></td>
</tr>
</tbody>
</table>

Source: Town and Country Planning Department; Socio-Economic Survey, 2000

As one moves a bit higher, one finds that the nomads have left a little bit of their land as fallow land other than current fallow. It may be attributed to two reasons: either to let the land get replenished or just to begin with cultivation after a short while. While talking to the local people during my field survey, I could make out that the major change in the land use pattern was the land under cultivation was decreasing at a faster pace as more and more people were getting involved into secondary and tertiary activities.

4.2 SPATIO-TEMPORAL CHANGES

The term spatio-temporal changes mean something happening or changing on land/space with respect to time. Here while talking about spatio-temporal changes at McLeod Ganj, we take two periods into consideration i.e. before 1960's and after 1960's. It was in 1960's that His Holiness, the Dalai Lama came to McLeod Ganj and settled here by making this place as the Head
Quarters of Tibetans in-exile. McLeod Ganj was a little hill station during the British Rule in India. It has been named after Sir Donald Friell McLeod, a Lieutenant Governor of Punjab while the suffix - Ganj is common Hindi word for neighborhood. The twin towns of Forsyth Ganj and McLeod Ganj, continued to grow steadily in the coming years but after the earth quake of 1905, most of the parts were destroyed. In 1959, when the Dalai Lama set up the Government of Tibet in-exile in 1960, McLeod Ganj became his official residence and also become home to a thousand of Buddhist monasteries and thousands of Tibetan refugees. Over the years, McLeod Ganj evolved into an important tourist and pilgrimage destination and has since grown much in population.

But if we have a look at the tinsel town before 1960’s, it was a quiet one with agriculture and pastoralism as the main activity. People were not involved into secondary and tertiary activities. They used to grow wheat, seasonal vegetables and few had plantations of almonds and apricots.

There were no concrete buildings, no market place except 2-3 small grocery shops. No well-developed roads except non-metalled narrow lanes leading to the villages. Transportation was minimal even from Dharamshala.

**McLeod Ganj : After 1960**

Slowly and gradually after the incoming of the Tibetans in 1960 and because of the tourist in flow to see His Holiness, McLeod Ganj has slowly and gradually converted over the years into the present sub-urban area with the temple of His Holiness as the main tourist place, there are several monasteries and galleries at McLeod Ganj which give a detailed knowledge about the Tibetan culture. With the market place bustling all over with all sorts of shops, cafes, restaurants, hotels and recreational centres, McLeod Ganj is changing over-night. The impact and the aura of Tibetans is so much so that while being at McLeod Ganj you find yourself as if in one of the towns of Tibet. That is the reason that McLeod Ganj is also referred to as ‘Little Lhasa’.
A little bus stand is the central point of McLeod Ganj where every person has to come in order to move out of the town. Hundreds of monasteries, nunneries, schools and other centres have cropped up in McLeod Ganj which provide education not only to the Tibetans but also to the ones who are eager to learn about Buddhism.

Talking about the nature of the work of local people only few of them are into agriculture, around 90% of the local people are into secondary and tertiary activities especially business activities. Most of the families from lower Dharamshala, Naddi, Bhagsunag, Dharamkot and Forsyth Ganj have given their agricultural land for the construction of hotels, restaurants or guest houses and few of them are running this particular activity from a part of their home. There is a variation in the business activities being operated at McLeod Ganj.

During the field visit, it was found that little or no land is left at McLeod Ganj for further construction. Huge buildings, offices and other business activities are being run from the place. The author to few elder people and gathered information through personal interviews and even through questionnaires that there has been an acute change in the environment of the area.

Land under forest cover has declined and so has it under agriculture. There has been a change in the climate also over the years with the maximum variations being observed for the ranges in temperature and rainfall. An irregularity has also been observed in the snowfall pattern.

Many species of the flora and fauna are getting extinct. Deforestation is increasing day by day to accommodate the teeming population every year. Landslides can be seen commonly during the rainy season. The level of pollution has also been increasing.

With no proper place for sewage disposal, water and air pollution is increasing. With the rapid increase in population, the pressure on the
Photo Plate 4.7 (Communication Towers)
Photo Plate 4.8 (Illegal Construction carried out at fullswing)
Photo Plate 4.9 (Trees being cut recklessly for new sites)
environment is continuously growing. According to the Tibetan Welfare Office, Upper Dharamshala’s environment is threatened by its rapid growth. The main threats are considered to be :-

- Deforestation and erosion
- Forest Fires
- Slates mining
- Uncontrolled construction and development
- Untreated sewage and open sewage.
- Insufficient toilet facilities.
- Insufficient supply of drinking water and its contamination.
- Inadequate management of solid waste.

With the increase in the population the natural sources are being depleted at a very fast pace. Resource Management is required and every individual at McLeod Ganj has to be very conscious while using the available resources so that these can be utilized in the near future also.

4.3 PEOPLE’S PERCEPTION OF LAND USE/ LAND COVER CHANGES

Taking into consideration the perception of people on land use and its changes, I shall take into account the interview technique and the questionnaire method. The question regarding land use and the changes were put forward to the Tibetans in exile and the local people since they are the ones who have settled here before 1960’s and after that during my conversation with the local people, The author came to know about their perceptions which have mentioned as case studies :-
According to Mr. Suresh Aggarwal, owner of a restaurant, Lord Krishna says that before 1960, the land value was negligible. The people were engaged in agricultural activities only. It was only with the arrival of the Tibetans that they got involved into commercial activities and that their standard of living raised. Their going back to Tibet will give a big jolt to the business of the place and that the local people will have no work to do.

The information collected from the tourism office, Dharamshala reveals the fact that the best way in which the local inhabitants earn is by giving their homes/rooms on rent for yearly or monthly basis. These houses are owned by the locals and the foreignness stay on rent which depends upon the seasons. During the peak tourist season, the per day rent goes upto Rs. 2000/night for a room and the accommodations are also given on rent for monthly and yearly basis between Rs. 10,000/- month to a lakh per annum. This is one of the major business activities that is being carried out at McLeod Ganj. Earlier the people were involved into agriculture and pastoralism but now every local person is involved into some economic activity of secondary or tertiary nature.

According to the Town and Country Planning officer, Mr. Ravinder Singh, the area in McLeod Ganj and upper parts of Dharamshala have been occupied by organizations, schools, monasteries, nunneries, various shops, hotels and restaurants. The proposed plan for McLeod Ganj reveals that in the coming times, the road running from lower Dharamshala to Bhagsunag passing through McLeod Ganj will entirely be teemed up with commercial activities.

Hence it is clear that by the incoming of the Tibetans, the area has been benefited in one way or the other. But there are various other problems which have cropped in along with this fast pace of development of the area.

The information collected from Town and Country Planning Office, Dharamshala its planning officer, Mr. Nirdosh dealing directly with the area of McLeod Ganj says that the town has not been planned. It is haphazard in its growth with almost majority of the construction being illegal. According to
him, the slopes of the hills have been utilized for construction of new shops and restaurants. The town of McLeod Ganj is now reaching the last stage of its growth. It has been stagnant now with no more area left for further expansion.

Mr. Ravinder Singh, Town Planner, Dharamshala says that the settlements are expanding towards Bhagsunag and this area which happened to be a village at one time is more or less converting into an urban area. The settlements along with commercial activities have started moving upward till Bhagsunag with most of the tourists now preferring to stay at the former rather than at McLeod Ganj.

With this haphazard growth of the town, several problems have turned up in the area like traffic congestion and parking problem, the land use pattern has changed entirely with most of the local inhabitants selling their lands to the real estate developers and builders. Agricultural activities have almost taken a back seat with most of the local population being involved into commercial activities have increased as the hills are being encroached upon for building up of huge shopping complexes. Deforestation is also taking place at a rapid pace.

According to the Patwari, Mr. Ranjit Singh Pathania of Dharamshala(I), McLeod Ganj has a total area of 58 hectares, out of which 45½ hectares is used by the local people.

Area occupied by His Holiness, the Dalai Lama is 10 hectares and 2½ hectares of the land is with Tibetan Societies, nunneries, monasteries, schools and for individual Tibetan people. In McLeod Ganj out of 58 hectares the illegal land occupied by the Tibetans corresponds to about one hectare.

The information regarding field surveys of Socio-economic conditions and agricultural activities carried out at McLeod Ganj by the Department of Statistic, National samples Survey Organization; Field operation Division and Statistics Authority reveals that the socio-economic conditions both at McLeod Ganj and Dharamshala have improved since 1980 onwards. The standard of
living of the people has increased, the housing structures have improved and the economic conditions of the people have also risen.

But the agricultural activities have come down, only few families are into this but they also practice subsistence agriculture.

4.4 REFERENCES

Statistical Abstract, India 2003, pp. 24-25

Town and Country Planning Department; Socio-Economic Survey, 2000


SANDEC/EAWAG, Dubendorf, Switzerland.