Till now we have studied various dimensions of local area planning and processing techniques of data/information. These dimensions will help in conducting the case studies under different geographical setup. To make your work more convenient, we have discussed four case studies. These case studies are related to market, slum, tribal and hill areas. In this unit we have given a detailed account of these case studies.

**OBJECTIVES**

After studying this lesson, you will be able to:

- justify the rationale behind studying the case studies.
- know different case studies and their local area significance.
- compare situations and conditions under different geographical setups.
- analyse and establish relationships with geographical conditions and socio-economic development of local areas.
- explain the case studies with reference to their planning priorities and socio-economic concerns of the local people.
- suggest the plan to be taken up for further development.

**32.1 SIGNIFICANCE OF CASE STUDIES**

There are marked variations in terms of geographical setup, socio-economic conditions and levels of development of the people in different parts of the country. We can understand the ground realities better by conducting field surveys. The approach to field survey is generally systematic and follows the set norms of inquiry.
for all kinds of surveys. However, this approach is not sufficient to take care of specific case studies which are distinct in their nature and solution to planning problems. This creates confusion and provides undue coverage to certain issues which are relatively less meaningful in another setup. As such there is a need for case studies that deal with area and people specific conditions and present the ways to analyse the situations. The case studies reflect different problems faced by specific group of people and areas. It also reflects the priorities of planning for different local areas and people. For example market areas are faced with issues like parking space, overcrowding and congestions, quality and variety of goods for different levels of producers and consumers. On the contrary tribal areas suffer with the poor technological base, inhygenic condition, poverty, and environmental
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degradation. The priorities of slum areas are sanitation, health and hygiene, while that of hill areas is inaccessibility, remoteness, harsh environmental conditions. This is also true is case of functional or occupational surveys. Agriculture in hills, plateus and plains varies significantly. It also presents marked variations even within one setup also. For example agriculture of Punjab is different from that of Assam plains or plantation areas of Kerala and Tamilnadu. As such case studies provide genuine basis for analyzing area specific planning issues.

Background to case studies

The case studies presented here have been briefly discussed in terms of their significance in geographic analysis.

The case study of market area deals with a location where some people sell their products and services, while other purchase goods and commodities for consumption or for further processing. Markets may vary from a village market, a weekly market to specialized markets and malls. In the study of a market interaction is most important for the exchange of goods and services.

The case study of slum relates to a geographic situation in which a group of people are forced to live in poor sanitary and unhygienic conditions of living space largely due to poor economic conditions. The study of slum gives an insight into the problem of space and seeks to address some of these issues through developmental activities.

The case study of tribal area relates to the habitat, economy and society of a group of people who practice traditional modes of production and distribution. A tribal group is usually placed in remote geographical pocket like forests, hills, grasslands and less fertile zones in uplands and lowlands. The study of tribal area explains how a community lives in harmony with nature despite low productions and low level of infrastructures. Remoteness of the tribal areas keeps their culture intact and improving while slow changes continue to put them in the less modernized category.

The case study of a hill area explains ruggedness of the terrain, its higher altitude, steeper slopes and limited land resources. Consequently, pressure on limited fertile land is quite high. It is to be noted that hill areas vary with each other in dimension and significance. For example hill stations, valley areas and areas of moderate slopes have varying population pressure due to differing carrying capacity of land. Snowfall is place specific constraints in hill areas. The communities in hill areas remain organized well knit and compact to face the constraints imposed by nature.

INTEXT QUESTIONS 32.1

1. List three factors that cause variations in different parts of the country.
   a. __________________ b. __________________ c. __________________
2. Explain two distinctions between a general field survey and specific case study.
   a. ____________________  b. ____________________

3. Write two priorities of planning related to each of the following.
   (i) Market area : Planning Priorities
      a. ____________________
      b. ____________________
   (ii) Hill area : Planning Priorities
      a. ____________________
      b. ____________________

32.2 CASE STUDY-I

SURVEY OF MARKET/WEEKLY MARKET

Market places are the localities where sellers and buyers meet and exchange goods and commodities on payment. Buyers are those who purchase items of their requirements where as sellers are those who sell the items (goods and commodities) on payment. The market places are broadly of two types—general or retail markets and specialised or wholesale markets. The general market places offer marketing facility for almost all types of goods/commodities. There are shop to shop variations in terms of goods sold. The number and variety of goods remains limited in case of a retail market centre. It serves the locality and nearby places with all sorts of required goods and commodities. There are large variations in the size of the retail marketing centres. Ranging from a few shops in residential localities or village shopping centres, a retail market centre could be as large as a large cluster of shops. On the basis of the structure and permanence of a shopping centre, the markets could be divided into regular and weekly markets. The regular markets are those which have a permanent physical structure of shops and offer marketing facility on a regular or daily basis. The weekly markets are those which do not have a permanent physical structure of their own rather these shops are mobile and offer marketing facility on the fixed day in a week. These markets have open or partly covered temporary tent or shop like structures which is packed, rolled and transported to other place where weekly market is scheduled to be held the next day. Weekly markets play significant role by serving large variety of consumer both from rural as well as urban areas. Almost all essential requirements of a household are sold in these markets. Weekly markets have different local names, “Painth”, “haat”, “bazar” etc. These markets are also named after the week day.

Conducting the field work

The first task towards conducting field survey is the selection of a market area
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which should not be too far from your reach and should be an important one. It should be a general mixed type of a market. Conduct a preliminary survey to find out the goods and commodities being sold, select two to five shops under each category subject to twenty five shops for the total survey. The next step is to collect basic information and prepare the base map of the market. The basic information such as population, area and civic amenities and the map of the market can be obtained from the office of the local government. (municipality, corporation etc.). In case maps are not available, sketch maps can be prepared. These maps are meant to provide sequence and direction of a place and are usually made not to the scale. All shops are shown having the same space. Such maps serve the limited purpose of the study.

The procedure of market survey should be based on the time available and the objectives of the field work. For example if the shopping centre is small, all shops can be surveyed. However, in case of medium and large sized shopping centres, we need to select varied shops from each lane. Only market locally known as “Sunday bazar”, “Budh bazar”, “Mangal Bazar” etc. can also be surveyed. These markets are regulated under “tak bazari system”. Under this system local govt. (municipal committee or a village panchayat) offers contract of tak bazari to the contractors (they may be a group of persons or individuals) for smooth functioning of the market. The charges of tak bazari are proportionate to the area occupied by the shops. For example, a shoe repair shop covering one sq. metre area may pay Rs. 5.00, while a cloth merchant with 8 to 10 sq. metre area shop may have to pay Rs. 50-99 for the market day.

The specialised markets deal with the marketing of a few goods / commodities. These markets are characterised by the cluster of shops dealing with the same specialised item on sale. Most of these markets deal with the whole sale trade and offer great range of variety in the quality of the specialized item. For example Grain market (Galla Bazar), market of pulses (Dal Mandi), fruit market (phal mandi), vegetable market (sabzi mandi), cloth market (bazar Bajaja), market of ornaments (bazar sarrafa), market of stationery (Kagzi bazar) etc.

The customers to the market places are both from neighbourhood and countryside (near by villages). Since agricultural operations are mostly seasonal in nature, there are fluctuations both in retail as well as whole sale trade. Similarly, during occasions of festivals and ceremonies, there is rise in the trading activity. Contrary to this, during unfavorable weather conditions, there is a considerable fall in the marketing activity. Even during the hours of business, there are peaks and lows of movement of customers. Usually the period between 10.30 to 12.30 PM and 4.30 PM to 6.30 PM are the peak hours of business activity. The shops to be surveyed should be selected on the basis of a suitable sampling technique. However, repetition of the sample should be avoided to reduce the possibility of errors in the results. Having selected the sample shops and sample business activity (general merchants, grocers, clothiers, stationeries etc), we should conduct market survey shop-wise.
INTEXT QUESTION 32.2

1. Provide one word answer to the following statements:
   a) A localities where sellers and buyers meet and exchange goods and commodities on payment.
   b) A site with permanent physical structure of shops which offer marketing facility on daily basis.
   c) A site with temporary structure of shops on a fixed day in a week.
   d) A Shopping centre dealing with very specific items having large variety and quality.

2. List two characteristics of each of the following:
   (i) Retail market
      (a) __________________________ (b) __________________________
   (ii) Wholesale market:
      (a) __________________________ (b) __________________________

32.3 CASE STUDY - II

SLUM AREA DEVELOPMENT: A CASE STUDY OF KANPUR CITY

Slums are the shelters of urban poor. They reflect insanitary conditions in the absence of bare minimum social facilities and amenities. Characterized by extremely low level of per capita income and living space, slums are the shelters of urban poor in India’s most of the metropolises. According to an estimate about 20 to 40 percent of the population in large cities lives in slums. The increasing industrialisation, growing capital investments and job opportunities in urban areas continue to attract rural migrants by assuring provision of at least a subsistence means of livelihood. However, increasing housing cost and rental value forces the majority to live in slums. It is, thus, a transfer of rural poverty into urban areas. Majority of the people living in slums are illiterates. Hence, they are employed in low paid jobs or work in low earning professions. Slums are generally known as Basti in Kolkata, Chals in Mumbai and Ahatas in Kanpur. As such slums have location specific names in different cities. Nearly 1.65 crore population lived in slums of million plus cities of India in 2001.

Kanpur metropolis is situated over the southern bank of river Ganga in the state of Uttar Pradesh. According to Indian census 2001, Kanpur metropolis recorded a population of 25,51,337 persons and was ranked 8th among Indian cities. From a population of 2,02,797 persons in 1901, the city grew more than 12.5 times during the past one century. Accordingly about 24 thousand persons are added to
the city every year. The rapid growth of industries, trade and commerce worked as gravitational pull for the labour from neighbouring districts of Uttar Pradesh. According to an estimate about 76.27 percent population of the Kanpur City lived in the congested part of the city centre.

Field survey of a slum locality (Kanpur metropolis) was undertaken at two successive steps. The first step was based on total survey of slum dwellings (in Bansmandi, Darshanpurwa and Chamanganj area) with regard to sanitation, health conditions and provisions of public utilities. The second step related to sample survey of households (25) randomly selected from slum localities in inner, middle and outer zones of the city. This survey deals with population size, living space, employment and income of the households.

**Population Structure And Household Size**

On an average, a household in a slum area occupied a living space of about 10 to 15 square metres only. The density of population ranges between 3000 to 4000 persons per hectare in most of the slum localities in Kanpur. There is a contiguous belt of residential areas surrounded by central commercial core and industrial pockets of the city. Housing blocks are usually double or triple storeyed and are separated by narrow lanes or by lanes. The overall outlook of slum localities presents most unhygienic conditions for human habitation. According to 2001 census of India, Kanpur city recorded a total slum population of 3,68,808 persons.

Slum localities are mostly segregated areas in terms of social composition. It is observed that a slum locality is predominantly occupied by one type of social group (Hindu or Muslim in this case). Further, within each social group a slum locality could be dominated by a caste group or people migrated from specific area. Functionally, a slum locality represents, by and large, the same economic profession and economic levels. Most of the slum dwellers are economically poor.

The average household size is 6.1 However, one could notice small and medium, ranging between 1-5 persons; large ranging 6-11 persons and very large with 12 or more persons. The survey of households conducted in a slum locality revealed 38.4 percent as small and medium sized, 54.7 percent large sized and 6.9 percent very large families.

**Occupational Structure**

The study reveals that 46.4 percent households were employed in professional services plumbing, masonary works etc., 32.8 percent assistants in business and commerce, 18.12 percent were daily wage unskilled labour and 1.8 percent were unemployed job seekers. In terms of sectoral employment, about 46.9 percent workers are engaged in informal sector.
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Local Area Planning

Notes

Table No. 32.1 Size of households and their occupational structure in a Slum Area of Kanpur

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Small and Medium (1-5 persons)</td>
<td>44 45.36</td>
<td>27 27.84</td>
<td>22 22.68</td>
<td>4 4.12</td>
<td>97 100</td>
</tr>
<tr>
<td>Large (6-11 persons)</td>
<td>63 46.67</td>
<td>47 34.81</td>
<td>25 18.52</td>
<td>0 0.00</td>
<td>135 100</td>
</tr>
<tr>
<td>Very large (12 &amp; more persons)</td>
<td>9 50.00</td>
<td>8 44.44</td>
<td>1 5.56</td>
<td>-</td>
<td>18 100</td>
</tr>
<tr>
<td>Total</td>
<td>116 46.40</td>
<td>82 32.80</td>
<td>48 19.20</td>
<td>4 1.60</td>
<td>250 100</td>
</tr>
</tbody>
</table>

Results reveal that most of the slum dwellers are engaged in service sector. It includes both formal as well as informal sector services. The employment in business is proportionately higher among large and very large household groups. Contrary to this, proportion of daily wage earners is higher among small and medium sized household groups. This group also reflects unemployed job seekers.

It is, thus, obvious from the above discussion that large and very large households increase family income by diversifying their economic activities. In its turn, it leads to different kinds of business activities due to increased income of the household. The joint family set up in a slum locality has a higher cumulative causation effect for the survival and growth compared to a nuclear and smaller family set up.

Level of Income Generation:

The overall impression of a slum locality reflects the pocket of urban poor. However, one could notice income variations among the slum dwellers. The field survey reveals the three levels: lower, middle and higher on the basis of monthly income.

Table No. 32.2 Monthly Income Levels in a Slum Area of Kanpur

<table>
<thead>
<tr>
<th>Income Group</th>
<th>No. of Households</th>
<th>Percentage Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower (Below Rs.1000)</td>
<td>185</td>
<td>74.0</td>
</tr>
<tr>
<td>Middle (Rs. 1001 - Rs.2000)</td>
<td>53</td>
<td>21.2</td>
</tr>
<tr>
<td>Higher (Rs. 2000 and above)</td>
<td>12</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out of 185 lower income groups, 74 came from small and medium, 106 from large, and only 5 from very large household size. From 53 middle income groups, 14 were recorded from small and medium, 28 from large and 11 from very large household size. In the higher income groups, these figures were recorded as 3, 6 and 3, respectively. The following table explains the relationship between per capita income and the household size.
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### Table No.32.3 Daily Per capita Income

<table>
<thead>
<tr>
<th>Size of Households</th>
<th>Rs.50 or less</th>
<th>Rs.51-100</th>
<th>Rs.101-150</th>
<th>Rs.151-200</th>
<th>Above Rs.200</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small/Medium</td>
<td>22</td>
<td>38</td>
<td>27</td>
<td>6</td>
<td>4</td>
<td>97 (38.8)</td>
</tr>
<tr>
<td>Large</td>
<td>46</td>
<td>42</td>
<td>33</td>
<td>13</td>
<td>1</td>
<td>135 (54.0)</td>
</tr>
<tr>
<td>Very Large</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>18 (7.2)</td>
</tr>
<tr>
<td><strong>Total Households</strong></td>
<td><strong>72</strong></td>
<td><strong>88</strong></td>
<td><strong>64</strong></td>
<td><strong>21</strong></td>
<td><strong>5</strong></td>
<td><strong>250 (100.00)</strong></td>
</tr>
</tbody>
</table>

Figures in the brackets indicate percentage to total

Results reveal that 28.8 percent of the slum dwellers earn Rs. 50 or less on daily basis. About 35.2 percent earn between Rs. 51-100, 25.6 percent between Rs. 101-150, 8.4 percent between Rs. 151-200 and remaining about 2 percent earn above Rs. 200. Thus most of the slum dwellers have low per capita income. The average income of small/medium sized household was Rs. 90/- of large households Rs. 81/- and of very large Rs. 86/-.

### Literacy

Out of 250 households, 158 (63.2%) were literates and 92 were (36.8%) illiterates. Out of 158 literates, 98 were from service, 54 from business and 2 from unskilled labour and 4 of them retired from service. Among 92 illiterates, 18 were from service, 29 from business and 45 from labour force.

### Residential Structure

The residential space available to the households ranged between 10 square metres to 15 square metres. The housing space was classified as: 1) small with less than 10 sq.metres., ii) medium from 10 to 12 sq.metres and large above 12 sq. metres.

### Table No. 32.4 Residential Structure in a slum Area of Kanpur.

<table>
<thead>
<tr>
<th>Type of Available Space</th>
<th>No. of Structure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>149</td>
<td>59.6</td>
</tr>
<tr>
<td>Medium</td>
<td>53</td>
<td>21.2</td>
</tr>
<tr>
<td>Large</td>
<td>48</td>
<td>19.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Table 32.4 reveals that most of the people living in the slums occupy small residential space. As many as, 149 out of 250 surveyed households lived in small, 53 in medium and 48 in comparatively large housing space.

Slum dwellers are mostly tenants (83 per cent) living in one rooms paying an average monthly rent of Rs. 62/-. Nearly 85 percent of the residences were electrified, 21.3 percent had bath room and 43.5 percent toilet and 28.2 percent with water tap facilities.
+Thatched mud and tent houses are common sites of slum dwellers along major drains, railway tracks and garbage sites. Some times these people are also provided with low cost housing by urban development authorities. Thus they are often displaced and the problem of resettlement and rehabilitation remains common to them.

Slums are the shelters of urban poor. They reflect insanitary conditions in the absence of bare minimum social amenities and facilities. Slums are the result of rural poverty, large scale displacement and increasing job opportunities in cities.

Slum Area Development

Slum areas are the most deprived localities of human settlements.

Based on the field survey and experiences of slum improvements in different cities the following planning is suggested.

1. **Provision for Basic Social Amenities:**

   The provision of safe drinking water, sanitation, toilet, ventilation, school, dispensary, post office, road, means transport and communication, shopping outlets, community centre etc. need to be provided to each locality irrespective of its status (rich or poor). It could be done for assuring human welfare. Services of ‘Sulabh’ International can NGO’s have proved most economic and hygienic. This needs to be created for the community as a whole because people are poor and can not afford many of these facilities at household level.

2. **Provision For Economic Pursuits:**

   Micro scale business and cottage industries could easily be planned to create self employment and enhance income. Small business such as evening chaat bazar, weekly market, fruit and vegetable outlets could be planned for the local people. Besides business, cottage industries such as sculpturing, embroidery works, statue making, stone works, wood works, iron and repair works etc., if planned, can be meaningful in job and income generation to the slum areas.

3. **Other Welfare Works :**

   Since most of people living in slums are deprived of assets, means of recreation and entertainment; community centres should be planned to provide means of entertainment and a place for social gatherings.

4. **Environmental Quality Control:**

   Slum areas reflect poor sanitation conditions. Slums develop near garbage disposal sites, refuge areas and along drains. Plantations can promote shade; reduction in pollution level and the creation of green environment along sites of waste disposal, roads and drains. Most of the slum localities have problem
of space, as such plantations of dwarf and flowering trees is most appropriate.

Planned efforts are also needed to cover the drains and sites of waste disposal. Planned efforts to slum improvement have made significant changes in the quality of life in Dharavi- A slum locality in Mumbai.

INTEXT QUESTIONS 32.3

1. Write three characteristics of a slum locality.
   a. _____________________________________________________
   b. _____________________________________________________
   c. _____________________________________________________

2. List three factors that have contributed to rapid increase in the slum population of Indian cities.
   a. _____________________________________________________
   b. _____________________________________________________
   c. _____________________________________________________

3. Suggest three priorities of planning for the improvement of a slum area.
   a. _____________________________________________________
   b. _____________________________________________________
   c. _____________________________________________________

32.4 CASE STUDY - III

STUDY OF TRIBAL VILLAGE: SEMBELPANI (DISTRICT BANASKANTHA-GUJARAT)

Tribal Area Development: A Case study of Sembelpani tribal Village (District Banaskantha, Gujarat)

Introduction

The study area Sembelpani, a predominantly tribal village, is located approximately at 24°20' north latitude and 72° 44 east longitude in Danta tahsil of district Banaskantha of the state of Gujarat. The Palanpur - Ambaji road (Gujarat) passes nearby the village and connects Mt. Abu in Rajasthan. The village lies to the west of Ambaji town at a distance of about 7 Kilometres.
The area is a part of the south eastern extension of Aravali Hills adjoining district Sirohi in the State of Rajasthan. The village Sembelpani forms a part of Ambaji Mata Hill complex that represents sharp hill features, ranges and hillocks. The general elevation of the study area is approximately 650 metres above mean sea level. River Saraswati, a tributary of river Sabarmati flows through the area. This hilly tract records an average annual rainfall of 830 mm received largely from the south west monsoon. The vegetation is typically dry deciduous type with trees like Teak, Mahua, Bamboo, Golar, Halad, Bija, Kandhi and Sandi (local names). At places, vegetal cover is represented by scrub and open grasslands.

The Sembelpani has an area of 1542.48 hectares and a population of 642 persons. There are 106 households in the village (table-32.5). The proportion of tribal population to total population is 74.06 percent. While Bharwad represents the tribal community, Rabari represent the non-tribal community in the village (Table-32.6). The sex ratio (proportion of females per 1000 of male population) is 871. The proportion of literacy among females is 14.5 percent while among males it is 26.4 percent.

**Table No.32.5 Profile of Households in Sembelpani Tribal Village - 2006.**

<table>
<thead>
<tr>
<th>Sample Households</th>
<th>Total No. of Households</th>
<th>Total Population</th>
<th>No. of Sample Households</th>
<th>Member of Households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>106</td>
<td>642</td>
<td>30</td>
<td>210</td>
</tr>
</tbody>
</table>

**Table No.32.6 Population Characteristics.**

<table>
<thead>
<tr>
<th>Area in Hectares</th>
<th>Population</th>
<th>Percentage of Tribal Pop.</th>
<th>Density of Pop. Per Sq. Km.</th>
<th>Sex Ratio</th>
<th>Percentage of Literacy M F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1542.48</td>
<td>642</td>
<td>74.6</td>
<td>46</td>
<td>871</td>
<td>26.4 14.5</td>
</tr>
</tbody>
</table>

Rabarlis are a semi-nomadic cattle rearing people. It is curious that they live in small conical huts called Khuba. Rabarlis have become a group of pastoral or semi-pastoral people in permanent economic relationship with other constituents of the local caste system.

**Land Utilisation:**

Of the total geographical area (1542.48 hectares) nearly 7.5 percent is arable and 92.1 percent is non-arable. The other uses of the land account for 0.4 percent (Table-32.7). The village represents limited agriculture, widely spaced woodlands and a large grazing ground. The land based activities include animal herding and subsistence agriculture. Most of the houses are thatched, kuchcha, widely spaced, elongated with partly fenced enclosures used for keeping animals, animal feeds like straw, grasses and farming implements. The grazing grounds of the village are commonly shared by the tribal community. Transhumance is generally practised.
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during drought periods. Pastoralists move with their animals along Aravali highlands during summer and towards Kutch, Kathiawad area during winter season.

Table No.32.7 Patterns of Landuse (in hectares)

<table>
<thead>
<tr>
<th>Total Geographical area (in hect.)</th>
<th>Arable Land</th>
<th>Non-arable Land</th>
<th>Forest Cover</th>
<th>Other Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1542.48 (100.0%)</td>
<td>116.20 (7.5%)</td>
<td>1420.26 (92.1%)</td>
<td>0.0</td>
<td>6.02 (0.4%)</td>
</tr>
</tbody>
</table>

Economic Activities and Sources of Income

Of the total working population nearly 53 percent are directly engaged in animal herding and associated activities, about 41 percent in agro-pastoral activities and remaining about 6 percent in cottage industries, trade, transport and services (table-32.8).

Table No.32.8 Participation in Economic Activities

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Labour</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total M F</td>
<td>Total M F</td>
<td>Total M F</td>
<td>Total M F</td>
</tr>
<tr>
<td>14 3 11</td>
<td>20 12 8</td>
<td>8 5 3 42</td>
<td>20 22</td>
</tr>
</tbody>
</table>

On an average a household owns about 60 livestocks. Cows, buffaloes, goats, sheep, mules, camels etc. are the common animals reared in the area. Besides livestock, households are also engaged in the collection of forest products like honey, grass, guggal, dhaulimusli and bor. Agriculture is practiced in a few pockets with relatively flat land and deep soil cover. Agriculture is largely rainfed. The crops grown in the area are grains like millets, oil seeds and pulses.

Table No. 32.9 Income Through Different Sources

<table>
<thead>
<tr>
<th>Average Income Per Household from Different sources (In Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>2330 (24.89%)</td>
</tr>
</tbody>
</table>

(Figures in brackets indicate percentage).

The sources of income are through the sale of animals and animal products like milk, ghee etc., forest products, agriculture and allied activities, cottage industries and a variety of local services. The average annual income of the household from all sources is Rs. 9361/-. The income generation through animal products and forest products is about 69 percent, through agriculture about 25 percent, through manual works as labour about 6 (5.54) percent and remaining through handicrafts and other works (table-32.9).
Household Assets

There are very limited household assets with the tribal community. The house, utensils, furnitures, grain storage drums, baskets, musical instruments and farm implements are the assets of a household. The value of the household assets, in money terms, ranges between Rs.6001- to 9001-. On an average the value of a house is Rs. 6800-, farm implements Rs.384/-, utensils Rs. 279/-, furniture Rs. 210/-, musical instruments Rs. 69/-, grain drums Rs. 68/-, baskets Rs. 38/- and others Rs. 81/- (table-32.10).

| House Furniture Utensils Baskets Grain Drums Farm Implements Musical Instruments Others Total |
|--------------------------------------------------|--------|--------|--------|---------|----------------|----------------|-------|--------|
| 6800  | 210  | 279  | 38  | 68  | 384 | 69  | 81  | 7929  |

Animals are the major source of income, milk, meat and exchange of goods. The value of a household in the tribal community is judged by the number of animal stock it has. Agriculture is limited to certain pockets in the village. Agriculture is practiced along with pastoral activities to supplement the household income. One or two members of the household also move towards coastal Gujarat to work in groundnut and cotton cultivation. Living in harsh conditions and leading a hard life is common to the tribal people in the area. Forced with poverty and recurring drought, tribals usually go for distress sale of animals and crop produce for their survival.

Interactions

The tribal population in the study area maintains short to medium distance interactions. Ambaji is the nearest market centre where, most of the animal, agricultural and forest products are sold (table 32.10-32.12). The household requirements of cloth, utensils, spices, foodgrains etc. are also purchased seasonally from Ambaji market. In terms of interactions related to place of work, nearly 87 percent of the workers remain engaged in the village (sembelpani) itself. About 7 percent of the workers move to other places in search of jobs. This is a short distance movement upto 10 kilometres in nearby villages and markets for about 7 to 8 months. Remaining about 6 percent workers move to longer distances (more than 50 kilometres) for about 4 to 6 months to work in groundnut and cotton fields of neighbouring districts. Shortage of fodder grasses, tree leaves etc. also forces pastoralists with the herds of animals to make short duration movements towards north east along Aravali hills and along river valleys (Banas, Saraswati and Sabarmati) in the plains of Gujarat.
The tribal population accounts for about 8 percent of the total population of India. They are commonly found in remote rural areas of highlands. The ownership of resources such as forests, grazing grounds etc. is joint for the community. Tribal people are known for the protection and promotion of plants as well as wild animals. For exchange of goods and services tribal people generally practice barter system.

**Suggested Planning For Tribal Area Development**

Tribal area development seeks to promote tribal cultural heritage keeping balanced ecological growth and economic development. Since tribal societies are largely based on pastoralism, subsistence cultivation, fishing, hunting etc. as their means of subsistence, development of land, water, plants and wild animals are basic components for tribal area development. A brief discussion on different aspects of planning proposals related to the study area are given below:

**Ecological Planning**

Waste lands, hill slope sites, river valley areas and road sides deserve plantation of drought resistant plants like neem, shishan, mahua, bamboo etc. To ensure the survival and growth of these plants, provision of tanks, wells, tubewells need to be made. It is likely to increase the employment to the local people and create permanent physical structures. The increased water sources will help in transforming the land into green pastures and increasing the farm and forest productivity. Green pastures, wood lands and water bodies will regenerate the endangered ecosystem, so essential for wild life promotion.

**Planning the Social Facilities**

To ensure social development, provisions for social facilities need to be made.
Village Sembelpani has a primary school and three shops to serve the local people. The source of water supply to the village is through two wells, one tank and a nearby river. A rural road (semi metalled) connects the village to Ambaji market centre. As such, social facilities that need to be planned are the provision for one senior basic school, one lady doctor, one veterinary doctor, dispensary, P.C.O. and a post office. Road has to be made metalled with a public transport system upto Ambaji town.

Planning the Economic Development

The existing local economy which is at its subsistence level, deserve technological back up for surplus production. Dairy cattle, which yield very little milk need to be replaced by high yielding breeds of cows, sheep and buffaloes. The quality of local breeds of animals could also be improved through hybridisation. Similarly, meat giving animals and those carrying loads can also be improved qualitatively to yield better economic returns. Cash crops like cotton, groundnut and fodder crops need to be encouraged for more agricultural out put. Agro-based industries, cottage industries and handicrafts need to be established to process the surplus agricultural produce.

Overall Perspective in Tribal Area Development

Given the chance, the tribal community will excel in the socio-economic development and will match with their non-tribal counter parts. Despite the fact that tribals have a traditional mode of production and are economically poor, they possess enormous knowledge of herbs, roots, plants, stones which they utilise in maintaining their health status. The tribal dances, music and performing arts are of higher quality. Thus, the tribal practices and knowledge about local medicines and culture could be promoted further and need to be utilized for employment and income generation. The scenic significance and hill surroundings are better suited for the promotion of adventure tourism like mountaineering, rock climbing, river rafting etc.

The provision of basic social facilities, assured irrigation and water supply system, availability of power etc. will accelerate the pace of plantation, afforestation, commercial pastoralism and cultivation. This, in its turn, will increase the employment and income levels of the tribal households. Tribal culture, heritage and knowledge need to be promoted on continuous basis. It will promote a sense of pride and will accelerate the pace of local area development through people’s participation and favourable policies.

INTEXT QUESTIONS 32.4

1. Write the appropriate words to complete the following sentences:

Statements

a) The proportion of tribal population to total Indian population is_____.

GEOGRAPHY
b) The small conical huts in which tribal population of sembelpani lives are known as__________.

c) The major source of income among tribal communities is__________.

d) The tribal practice of movement along with herds of animals in search of pastures is called as__________.

2. List three characteristics of a tribal community.
   a)._______________ b) ._______________ c) ._______________

3. Enumerate three planning priorities for tribal area development.
   a)._______________ b) ._______________ c) ._______________

32.5 CASE STUDY - IV

STUDY OF HILL VILLAGE : RANGDOOM

(District Kargil – Jammu and Kashmir)

Rangdoom is a hill village lying across Great Himalayan Range in the state of Jammu and Kashmir. Geographically, it lies at 33° 42' N and 76°12' E in the Kargil district of Laddakh region. It has an altitude of 3820 metres above mean sea level. The Kargil - Padum National Highway passes through Rangdoom. Being located in the middle part of the National Highway, Rangdoom is at a distance of about 118 Kilometres towards south from Kargil. The distance between Kargil to Leh is approximately 176 Kilometres. It is a backward monastery village situated on the valley floor in relatively more isolated upper Suru valley. The village has a school, a post office and a camping ground. There are a few shops that deal with general provisions for the house holds. With a population of about 300 persons, there are 72 households in the village. Hill areas have usually small sized villages and they are scattered. The village has a polyandry system of family to avoid further division of available land resources.

Rangdoom is located on the right bank of river Suru which is a left hand tributary of the mighty river Indus. The river Suru originates from the water divide of Panji La (Pass). This water divide separates the catchment area of river Zanskar from that of Suru. It joins Indus to the north of Kargil town which is situated on its left bank. Suru is a perennial river. The flow of water in the river remains remarkably high during summer season when the snowfields and glaciers melt, while the river channel shrinks in the winter season they do not melt owing to below freezing temperatures.

Rangdoom is situated in a wide valley where a number of streams join Suru and is made of two hamlets namely Juldo and Tshi Tungda situated at a distance of about 9 kms. from each other. In between is situated Rangdoom Gompa on a hillock. The land is full of boulders and pebbles and is not very fertile.
Rangdoom Gompa

Gompa refers to a Buddhist Monastery. It is a religious institution and plays a very important role in all aspects of the life of Laddakhi Buddhists. All land in Rangdoom is owned by the Gompa and the villagers work on it as tenants. Lama, the Buddhist monk, is not supposed to do any manual work. It is believed that if he undertakes any manual work, it would lead to death of numerous life bearing objects. Rangdoom Gompa is centrally located on a hillock and controls socio-economic life of Juldo and Tshi Tungda hamlets. An elderly Lama who is looking after financial matters of monastery is known as Chakk-Zod. The land, therefore, belongs to the community and managed by the Gompa system of local administration. People in the village work as permanent tenants on hereditary basis and follow the rules set by the Gompa. A part of the produce is given to the monastery. However, proportion of the share from the produce varies from time to time depending upon local situations and requirements.

Climate

The village records extreme continental type of climate. Its climate is characterised by scanty rainfall, high range in the annual and diurnal temperatures, warm summers and severe cold winters. The mean monthly temperature varies from -12°C in January to 12°C in July. The approximate annual range of temperature is about 24°C. The village lies in the rain shadow area and receives less than 15 cms of annual precipitation. Unfortunately, larger amount of precipitation occurs in the form of snow during winter months. Gulmatango is the nearby observatory for recording the weather and climatic data.

Vegetation

Rangdoom has a hostile environment due to high altitude and extremely rugged terrain on the one hand and cold arid climate on the other. Climate dictates the overall pattern of vegetation. It presents a system of alternating valleys and mountain ranges. The barren rocky surfaces of mountain ranges are devoid of soil and vegetation cover. Most of the plants require a minimum of 6° C temperature for germination of seeds and plants to grow. The high diurnal range of temperature makes mean temperature values quite deceptive. The growing season is restricted to less than 6 months in a year. Plants are almost all ground - hugging shrubs and short woody trees. All the leaves are packed with nutrients. The vegetation type is dominated by grasses, bushes and small trees.

Scanty vegetation cover large areas because of cold dry conditions. Vegetation is very sensitive to grazing and is poor in species. The type of vegetation varies with altitude. Pasture grasses and weeds (Polygonum tortuosum etc.) are common near Rangdoom. Grazing is the most common activity during summer. The village presents, a very desolate picture with very little greenery. Locally known as ‘Tsermang’, the seabuckthorn is used for food, fire and fodder. It is a medicinal plant and its juice does not freeze in sub zero temperature.
### Agriculture

The total geographical area of the village is 289.76 hectares. The total cropped area is 94.29 hectares. The culturable waste accounts for 49.37 hectares and remaining 104.82 hectares is not available for cultivation. As such, less than 40 percent of the total land was found to be under plough. About 68.2 percent land holdings are less than 1 hectare, 27.3 percent between 1 to 2.5 hectares and remaining 4.5 percent between 5 to 10 hectares. It is further observed that 35.8 percent leased in land for agriculture belongs to less than 1 hectare, 32.7 percent between 1 to 2.5 hectares and remaining 31.4 percent between 5 to 10 hectares. As such over 95.5 percent peasants in Rangdooom village were cultivating land measuring less than 2.5 hectares. The distribution of land as a resource is very uneven.

The agriculture is subsistence type in this village. The important crops grown in the region include grim (Naked Barley), wheat and peas. The mixed grim, wheat and peas are roasted and then ground to make Tsampa (Sattu) which forms the main food. Grim is used for making Chang, a popular drink with the Buddhists in the region. The chhang is made through fermentation of grim. Peas are used both as vegetable and for making Tsampa. Other crops include Oal (alfalfa) for fodder and also some Trumba (Buck wheat) and Garasl Bakla (Beans). Recently some vegetable crops have also been introduced to meet the demand of tourists and nearby market areas. However, most of these crops are grown mainly for self consumption. The relative share of different crops reveal that grim accounts for about 64.6 percent of the total cultivated area. It is followed by peas (23.1 percent), fodder (4.8 percent), Garas/Bakla (4.1 percent), wheat (2.4 percent) and other crops (1 percent). Thus agriculture is a seasonal activity which lasts for about 5 to 6 months in a year. Agriculture is practiced through traditional tools. The animal power of Yak or Dzo is used for ploughing and thrashing. Human labour is used for most of the operations. Use of modern machinery, fertilizer and high yielding variety seeds is very limited. The collective form of agriculture is also common in the village. It is known as Phaspun in which a group of households join together to complete labour intensive works such as sowing, harvesting etc.

Manure is an important input in agriculture. It consists of animal dung/droppings and night soil. Since winters are too cold, there is a provision of toilet in every house. It is usually built on the first floor with a hole in the wooden floor. The excreta gets collected in the ground floor. This is mixed with soil and is used as manure in the agricultural fields.

### Pastoral Activities

Livestock rearing is the other important component of the economy. Most of the livestock, except those required for agricultural operations, are taken to natural pastures during summer months. Most of the pastures are located on the higher grounds. Sheep, goats, ponies, and yaks are the most common animals reared on
these pastures. Large flocks of sheep and goats are kept in these areas. Usually, one family from each village takes the cattle to summer pastures and live there in a hut, called Daksha. It is a temporary structure. The activity or animal herding is carried out among all households of the village on yearly basis. Milk and milk products are made in the Daksha. Besides milk and milk products, meat and wool are the other important products obtained from animal herding.

Tourism

Rangdoom is an important centre for summer tourism. Tourists and trekkers visit Rangdoom during summer season. According to an estimate, there are about 1000 visitors to the place during a summer season. Of the total tourists, about 47.3 percent are trekkers, 38.2 percent scientists and about 14.5 percent other unclassified visitors. Nearly 78 percent tourists are international and remaining 22 percent are domestic tourists. There are two important festivals that attract tourists to Rangdoom Gompa. The Ladakh Festival is celebrated on 15th September and Sindhu Darshan in June every year. Both domestic as well as foreign tourists take interest in participating in these festivals.

Prospects for Development

The overall analysis reveals that villagers in Rangdoom practise subsistence agriculture and nomadic herding on seasonal basis. The role of collective operations, both in agriculture and pastoralism, is still dominant in the economy of the village. People in this remote hilly village rely on barter system for exchange of goods and services. However, the role of Phospun (collective operations) is declining and it is getting replaced with hired labour. The changes are slow and dynamic. Nature is a major determinant of human activities in hill areas. Tourism is a new dimension in hill economy. The society is largely well knit and composed. The scope of development in hill areas depends upon the provision of essential infrastructures like roads, social facilities, markets etc. Mechanisation in agriculture and commercial pastoralism are the other important areas that can accelerate the pace of development in hill areas like that in Rangdoom.

Cultivable waste – The land that is suitable for cultivation but is not used for cultivation now.

Leased in land – The agricultural land taken on lease for some period.

Subsistence type of agriculture – It is a type of agriculture that has limited production which is mostly consumed locally.

Suggested Planning for Hill Area Development

Hill areas usually remain backward due to harsh climatic conditions and other natural constraints. However, planned efforts based on local needs could accelerate people’s participation and local area development in a hill environment.
The following priorities of planning are suggested to develop the Rangdoom area.

1. **Provision for basic amenities and facilities**

   The basic infrastructures such as metalled road, means of transportation, highway restaurants and guest houses, health centres, weather stations, schools, veterinary centres, markets, banks, and postal services need to be upgraded and established along Kargil-Padum highway. It will act as a basis for human interaction and local area development.

2. **Provision for the improvement of ecological setup and economic basis**

   The ecological setup is largely devoid of vegetation. Large scale pastoral activities have resulted in degenerating the ecological setup. The pressure of animal population is on the ranges and is ever increasing. As such it is suggested that high altitude cold resistant trees be planted along the national highway and along the Suru valley areas. It is possible to grow Tsermang, a local berry tree which is known for its commercial value as its juice does not freeze even in subzero temperature. Similarly, pastures need to be managed through irrigation channels. Use of chemical fertilizers and assured irrigation to the land along Suru valley can improve the existing levels of agricultural development.

3. **Tourism Promotion**

   Rugged topography and glaciated landscape offer ideal natural conditions for expeditions, adventure tourism, rock climbing, sketting, trekking etc. Rangdoom occupies central location for promoting such tourism between Non-kun peaks and Panji La. However, provision of tourist amenities such as hotels, camping sites, guides, escorts etc. need to be made. Scientific and cultural tourism also have scopes to develop. Scientists and cultural tourists are already attracted to Buddhist Culture, Gompa organization, exploration of rocks, plants etc.

4. **Development of commercial pastoralism and cottage industries.** Pastoralism is an important economic activity of the area. However, animal products and the quality of animals are quite poor. As such there is an apparent need to upgrade the quality of animals such as sheep, goats, yak, ponies etc. The hybridization local breeds with karkuil sheep, goats etc. can improve the quality as well as quantity of wool, milk, etc. Cottage industries which form the basis for indoor winter activity need to be equipped with modern tools and markets. It will improve the economic status of the local people.

5. **Trade Relations and Regional Interactions**

   Trade relations of local surplus products need to be linked to the regional and national markets. Local people get minimum returns to their products due to distress sale. Govt support in establishing institutions of service centres,
subsidies and support services can be most useful in mobilizing local and regional products. It will also improve the local economic conditions. Traditional routes and trade links need to be further strengthened.

**INTEXT QUESTIONS 32.5**

1. Complete the following sentences by appropriate words:

   **Statements**
   
   (a) Areas with sleeper slopes and higher altitudes are called_________.
   (b) A Buddhist monastery in Ladakh region is known as_________.
   (c) An elderly Lama who looks after the financial matters of the monastery is called_________.
   (d) The distribution of rural settlements in hill areas remains_________.

2. Match the list I with list II.

   **List I – Terms**
   
   (a) Phospun
   (b) Chhang
   (c) Dzo
   (d) Doksha

   **List II – Definitions**
   
   (i) A popular drink in Ladakh region.
   (ii) A hut used as temporary human habitation during summer pastures.
   (iii) A collective form of agricultural operation.
   (iv) An animal that is used for ploughing and thrashing operations.

3. Suggest three priorities of planning for hill area development.

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**WHAT YOU HAVE LEARNT**

You have learnt, in this lesson, that field work is necessary for getting first hand basic information about people and places. The information, thus, collected is useful for developing general ideas and making meaningful explanations. However, field-work remains insufficient for making planning proposals on different themes and issues concerning area development. Theme or problem specific situations demand indepth informations related to particular issues which is covered through case studies. Since issues vary significantly from one situation to the other, the design of case studies varies with issues to cover it minute details of investigations. This lesson presents four case studies viz., market, slum, tribal and hill areas. The case study on market areas reveals marked variations in terms of structure and
specialization for the items on sale in different markets. While weekly markets present temporary structure and mobile shopping system, whole sale markets present a permanent structure and routine shopping system. The case study on slums reflect the sites of deprivation of bare minimum facilities, large scale displacements and influx of rural poverty into urban poverty. Tribal areas are also underdeveloped. These are remote rural areas of highlands. The tribal people practice limited agriculture and grazing. Protection and promotion of plants and animals is common to tribal culture and heritage. The share of tribal population to total Indian population is nearly 8 percent. Hill areas are marked with rugged topography, mostly devoid of vegetation, poor accessibility and harshness of the climatic conditions. Consequently, hill areas have common grazing grounds, limited agriculture, prevalence of collective operations and barter system of exchange of goods and services. The community, in a back-word setup, remains well knit, organized and cooperative.

**TERMINAL QUESTIONS**

1. How are case studies important for better understanding of problems related to specific areas and issues concerning their planning priorities?
2. Explain how does nature and structure of shops varies from one market type to the other?
3. What factors are responsible for the growth of slums in cities?
4. Where does tribal people live?
5. What is the significance of plants and wild animal in a tribal setup.
6. Why is collective agricultural operations, animal rearing and barter system of exchange important in the life of hill people.

**ANSWER TO INTEXT QUESTIONS**

32.1

2. a) The field survey follows set norms of inquiry and generally remains systematic, whereas case studies follow problem specific approach of inquiry for different issues.
b) The field survey provides knowledge about the general background of the area or situations while case studies deal with particular issues and offer greater insight into the theme or issue of investigation.

3. (i) Market area – Priorities of planning
   a) Provision for parking space
   b) Alternative arrangements to reduce over crowding.

(ii) Hill Area – Priorities of Planning
   a) Provision for Transportation
   b) Environment regeneration

32.2

1. (a) Market
   (b) Regular Markets
   (c) Weekly Markets
   (d) Specialized Markets

2. (i) Retail Market – Characteristics
   (a) Number and variety of goods on sale remain limited.
   (b) It serves to the locality and nearby places.

(ii) Wholesale Market – Characteristics
   (a) Number and variety of goods on sale are in bulk and have great range of choices.
   (b) Specialized items dealing with selected few serve to larger areas and population.

32.3

Characteristics of a slum locality:

1. (a) Low level of per capita income.
   (b) Absence of bare minimum social amenities and facilities
   (c) Prevalence of insanitary conditions.

2. Factors responsible for the increase in slum population.
Recommendations Through Case Studies

(a) Increasing industrialization and concentration of services in cities.
(b) Growing capital investments in cities.
(c) Job opportunities in urban areas.

3. Suggested planning priorities for the improvement of slum areas.
   (a) Making provisions for basic social facilities and amenities.
   (b) Initiating welfare works of rehabilitation and resettlement.
   (c) Facilitating economic pursuits for self employment.

32.4

1. Appropriate words
   (a) About 8 percent
   (b) Khuba
   (c) Animals
   (d) Transhumance

2. Characteristics of a tribal community.
   (a) Traditional mode of production.
   (b) Grazing grounds are jointly shared by the community.
   (c) Protection and promotion of plant as well as animal life is an integral part of the tribal culture and heritage.

3. Planning priorities for tribal area development.
   (a) Making provisions for social facilities and amenities.
   (b) Regenerating forest eco-system, green pastures and woodlands through lakes, ponds, wells tubewell and micro watersheds.
   (c) Establishing small scale processing units based on forest, animal and agri-products.

32.5

1. Appropriate words
   (a) Hill areas
2. Match of the Lists I with List II
   (a) iii, (b) i, (c) iv, (d) ii

3. Suggested planning for hill area development.
   (a) Making provisions for basic amenities and facilities.
   (b) Promoting cottage industries based on locally available raw material.
   (c) Developing tourism.

**HINTS TO TERMINAL QUESTIONS**

1. Refer to Section 32.1
2. Refer to Section 32.2
3. Refer to Section 32.3
4. Refer to Section 32.4
5. Refer to Section 32.4
6. Refer to Section 32.5