

CHAPTER V

LAND UTILISATION PATTERN

In the absence of communications in the past, the cultivators were forced to be self-reliant in their daily requirements of cereals, pulses, oilseeds etc., besides raising livestock. They used to go to the weekly "^{Hagals}Hats" only for getting their weekly or monthly requirements of salt, tobacco and a few other items, but they never or hardly used to carry low value cum-high volume farm produce for marketing. The existing land use pattern has been, therefore, the result of tradition and unconscious evolutions as per the needs of rural people. The land in Sikkim being mountainous, the existing land use pattern for various altitudes are as follows in Table 5.1.

Table 5.1

Land-use Pattern For Various Altitudes

Hills	Elevation	Climate	Vegetation
1. Lower Hills	980 ft-1640 ft	Tropical	Paddy, Maize, Millet, pulses, soyabean, vegetables, potatoes, cardamom, ginger and new crops are wheat, mustard, guava, lime and lemon.
2. Mid Hills	4920 ft-6560 ft	Temperate	Some paddy, maize, millet, buckwheat, wheat, barley, some mustard, soyabeans, off season vegetables, some orange, cardamom, pear, peach, plum, potato, ginger etc.

contd..

Table 5.1 (Contd..)

Hills	Elevation	Climate	Vegetation
3. High Hills	6560 ft- 16404 ft	Sub-Alpine- Alpine	Maize, some what, barley, off-season vegetables, apples, seed potato, pear, pulm, peach, buck-wheat, some millet, etc.
4. Very high Hills	16.404 t. - perpetual snow line	Alpine	Seed potato, off-season vegetables (1)

Land use classification

An adequate land use classification is essential for agriculture planning in the country. In India different land-use classifications have been used. Till 1949-50 the entire land area in India was classified into five categories called the Five-fold Land use Classification. This classification being too broad an outline of land use, was found to be inadequate for meeting the needs of agricultural planning in the country. On the recommendation of the Technical Committee and co-ordination of Agriculture Statistics, a Nine-fold Land Use Classification has replaced the old Five-fold Land Use Classification since 1950-51, for the purpose of agricultural census Six-fold Land Use Classification has been adopted in Sikkim. "Permanent pasture and other grazing land" and "Land under

miscellaneous trees and groves" have been clubbed together and recorded as "Uncultivated land other than fallow land". In the same way, "Forest (Private)" area put to non-agricultural use and "barren and uncultivated land" clubbed and recorded as "land not available for cultivation" (2).

The following table 5.2 gives the three different land use classifications adopted in India and Sikkim in different periods:

Table 5.2

Three Different Land-Use Classifications

Sl. No.	Old Five-fold land use classification	New Nine-Fold land use classification	Six-fold land use classification adopted by Agriculture Census
1	2	3	4
1.	Net area sown	1. Net area sown	1. Net area sown
2.	Fallow land	2. Current fallow	2. Current fallow
3.	Other cultivated excluding current fallows	3. Fallow land other than current fallow	3. Fallow land other than current fallow.
4.	Area not available	4. Permanent pasture other than grazing land	4. Other uncultivated land excluding fallow land
5.	Forest	5. Land under miscellaneous trees and groves not included in net area sown.	5. Land not available for cultivation.
		6. Forest	6. Culturable waste

Contd..

Table 5.2 (Contd..)

Sl. No.	Old Five-fold land use classification	New Nine-Fold land use classification	Six-fold land use classification adopted by Agriculture Census
1	2	3	4
		7. Area put to non-agricultural uses	
		8. Barren and uncultivable land.	
		9. Culturable waste.	

The Six-fold Classification has been adopted in Sikkim for conducting agriculture census.

The different concepts used in the Six-fold Classification have been explained by the Agriculture Department as follows-

1. Net area sown - It should represent the total area sown with crops and orchards counting area sown more than once, in the same year only once.
2. Current fallow - It represents the cultivable areas which are kept fallow during the current year. For example, if any "Seeding area is not cropped" in the same year, it may be treated as current fallow.

3. Fallow land other than current fallow - This category includes all lands which are taken up for cultivation, but are temporarily out of cultivation for a period not less than one year and not more than five years. The reasons for keeping such lands fallow may be the following-

- (1) Poverty of cultivators
- (2) Inadequate supply of water
- (3) Unremunerative nature of farming etc.

4. Other uncultivated land excluding fallow land - Permanent pasture and other grazing land and land under miscellaneous trees and groves have been included in this category.

5. Land under miscellaneous trees and groves - It represents the cultivable land which is not included in the net area sown but put to more agricultural use. Lands used for planting casurina trees, thatching grasses, bamboo groves, or other groves for fuel etc, which are not included under "orchard" have been included in this category. Such lands outside the operational holdings are not included in this classification.

6. Culturable waste - It includes land which is available for cultivation, but not taken up for cultivation, not even cultivated during the current year, and the last five years, or more in succession. Such lands may be either fallow, or covered with shrubs and jungles which are not put to any use. Culturable waste within the holdings have been covered by the census.

7. Land not available for cultivation - In this category land under forest (private) put to non-agricultural use, barren and uncultivable land have been included:

- (a) Forest - Only private forest has been covered for the purpose of Agricultural Census.
- (b) Area put to non-agricultural uses - All lands occupied by buildings and other lands put to use other than agriculture within the holding, narrow path etc. are covered in this category.
- (c) Barren and uncultivable land - All barren and uncultivable land within cultivated holding are covered under this category⁽³⁾.

8. Operational holdings - Land used partly or wholly for agricultural production.

Land under operational holdings and non-operational holdings

In Sikkim the last cadastral survey has been carried out in 1980-81. The total geographical area of the state 709600 hec. has been divided into -

- (1) Operational holdings.
- (2) Non-operational holdings.

The operational holdings in Sikkim according to the area have been divided into five sizes-

1. Marginal holdings less than 1.0
2. Small holdings 1.0 hec. - 2.0 hec.
3. Semi-medium holdings 2.0 hec. - 4.0 hec.
4. Medium holdings 4.0 hec. - 10.0 hec.
5. Large holdings - 10.0 hec and above.

The land under operational holdings put into six-fold land use classification and their different areas is represented in the following table 5.3.

Table 5.3

Six-Fold Land-use Classification And Their Different Areas

Classification	Total area in hectares	Percentage of total geographical area
1	2	3
1. Net area sown	78.321	11.04
2. Area under current fallow	4428	0.62
3. Other uncultivated area excluding fallow land	4560	0.64
4. Fallow other than current fallow	9474	1.33
5. Culturable waste land	681	0.10
6. Land not available for cultivation	11604	1.64
(A) Total operated land	109068	15.37

Land under non-operational holdings put into different land uses are presented in the following table 5.4

Table 5.4

Classification	Total area in hectares	Percentage of total geographical area
1	2	3
1. Permanent pastures and grazing land	72937	10.28
2. Land put to non- agricultural use	85362	12.03
3. Barren land	180250	25.40
4. Land under miscellaeneous trees and groves	5450	0.77
5. Forest	256533	36.15
(B) Total unoperated area	600532	84.63

The two tables above indicate that in Sikkim the total area of unoperated land is 600532 hec. or 84.63% of the total geographical area of the state, whereas that of operated land is only 109068 or 15.37% only. Among the different land uses forest is the first major land use accounting for 36.15% and barren land occupies 25.40% of the total geographical area. Compared to the area occupied by forest and barren land, the net area sown accounts for 11.04% only⁽⁴⁾.

The total number and area of five sizes of operated land holdings in Sikkim in 1980-81 are presented in the following table 5.5

Table 5.5

Five Sizes Of Operated Land holdings

Category of holdings	Number of holdings 1980-81 (.00 hec.)	Operated area (.00 hec.)
1	2	3
1. Marginal	255 (45.4)	120 (11.0)
2. Small	131 (23.3)	188 (17.2)
3. Semi-medium	109 (19.4)	305 (28.0)
4. Medium	53 (10.3)	335 (30.7)
5. Large	9 (1.6)	143 (13.1)
All categories	562	1091

Note: Figures in brackets indicate percentage to the total of corresponding columns.

Over 45% of the holdings in Sikkim are marginal holdings and cover 11% of the total operated area, whereas 13% of the total operated area in the State accounts for large holdings. Marginal and small holdings taken together account for about 69% of the total number of holdings covering 28% of the operated area in the State (5).

**District-wise classification of operational holdings
of five different sizes with Six-fold Land use
Classification**

The five different sizes of operated land viz., marginal, small, Mini-medium, medium and large with Six-fold Land use classification have been distributed in the four districts of Sikkim and in the state itself in the following table 5.6.

Table 5.6

Sikkim State

Size of Farmers (area in hec.)

Land use classification	Marginal	Small	Semi-medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	9.86	14.51	22.06	22.44	9.45
2. Area under current fallow	0.24	0.54	1.26	1.59	0.80
3. Other uncultivated area excluding fallow land	0.40	0.80	1.43	1.53	0.40
4. Fallow land other than current fallow	0.48	1.18	2.32	3.58	1.91
5. Culturable waste	0.05	0.08	0.19	0.26	0.10
6. Land not available for cultivation	0.94	1.69	3.24	4.15	1.58
Total operated area	11.97	18.80	30.50	33.55	14.24

Table 5.7

East District
Size of Farmers (area in hec.)

Land use classification	Marginal	Small	Semi-medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	3268	4456	6392	5867	1611
2. Area under current fallow	46	69	205	210	79
3. Other uncultivated area excluding fallow land	140	230	416	389	50
4. Fallow land other than current fallow	111	255	641	938	722
5. Culturable waste	22	31	66	145	19
6. Land not available for cultivation	408	803	1579	1903	636
Total operated area	3995	5844	9299	9452	3119

Table 5.8
West District
Size of Farmers (area in hec.)

Land use Classification	Marginal	Small	Semi- medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	2960	4322	6913	6225	2698
2. Area under current fallow	81	231	569	740	360
3. Other uncultivated area excluding fallow land	110	239	466	517	129
4. Fallow land other than current fallow	171	380	746	1227	611
5. Culturable waste	5	12	23	26	18
6. Land not available for cultivation	248	416	903	934	308
Total operated area	3575	5600	9625	9669	4122

Table 5.9
North District
Size of Farmers (area in hec.)

Land use classification	Marginal	Small	Semi- medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	740	957	1929	4633	3707
2. Area under current fallow	11	13	36	193	267
3. Other uncultivated area excluding fallow land	22	23	41	186	102
4. Fallow land other than current fallow	19	44	102	324	299
5. Culturable waste	3	4	17	45	44
6. Land not available for cultivation	43	74	158	755	482
Total operated area	838	1115	2283	6135	4901

Table 5.10
South District
Size of Farmers (area in hec.)

Land use Classification	Marginal	Small	Semi- medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	2887	4773	6826	5716	1441
2. Area under current fallow	99	226	400	447	96
3. Other uncultivated area excluding fallow land	133	304	504	443	119
4. Fallow land other than current fallow	177	503	831	1095	278
5. Culturable waste	17	32	79	50	18
6. Land not available for cultivation	239	400	605	555	155
Total operated area	3552	6238	9295	8306	2107

From the above tables, it is observed that maximum land under "net area sown" of marginal group of farmers is in East District which is 33.16% of the total "net area sown" reported in Sikkim under marginal group of farmers, West, South and North Districts have reported respectively 30.04%, 29.29% and 7.51% of the total "net area sown" under the same group of farmers. Comparatively, West District reported 9.42% less than East District, South District reported 2.47% less than West District and North District reported 74.37% less than the South District in respect of "net area sown" under marginal group of farmers.

The "net area sown" under small farmers of East, West, North and South Districts of Sikkim are respectively 30.71%, 29.79%, 6.60% and 32.90% of total "net area sown" of Sikkim under small group of farmers. Comparatively it is shown that East District has 6.64% less than the "net area sown" of South District, West District has 3.01 less than the East District and North District was 77.85% less than the West District in respect of "net area sown" under small group of farmers.

Area under "semi-medium group of farmers in "net area sown" category are reported 28.98%, 31.34%, 8.74% and 30.94% of the total "net area sown" of Sikkim under semi-medium group of farmers in East, West, North and South Districts respectively. It is observed that South District has 1.26% less than the West District, East District has 6.36%.

Table 6.11

South District
Size of Farmers

Land use Classification	Marginal	Small	Semi- medium	Medium	Large
1	2	3	4	5	6
1. Net area sown	2887	4773	6826	5716	1441
2. Area under current fallow	99	226	400	447	96
3. Other uncultivated area excluding fallow land	133	304	504	443	119
4. Fallow land other than current fallow	177	503	831	1095	278
5. Culturable waste	17	32	79	50	18
6. Land not available for cultivation	239	400	605	555	155
Total operated area	3552	6238	9295	8306	2107

From the above tables, it is observed that maximum land under "net area sown" of marginal group of farmers is in East District which is 33.16% of the total "net area sown" reported in Sikkim under marginal group of farmers, West, South and North Districts have reported respectively 30.04%, 29.29% and 7.51% of the total "net area sown" under the same group of farmers. Comparatively, West District reported 9.42% less than East District, South District reported 2.47% less than West District and North District reported 74.37% less than the South District in respect of "net area sown" under marginal group of farmers.

The "net area sown" under small farmers of East, West, North and South Districts of Sikkim are respectively 30.71%, 29.89%, 6.60% and 32.90% of total "net area sown" of Sikkim under small group of farmers. Comparatively it is shown that East District has 6.64% less than the "net area sown" of South District, West District has 3.01 less than the East District and North District has 77.85% less than the West District in respect of "net area sown" under small group of farmers.

Area under "semi-medium group of farmers in "net area sown" category are reported 28.98%, 31.34%, 8.74% and 30.94% of the total "net area sown" of Sikkim under semi-medium group of farmers in East, West, North and South Districts respectively. It is observed that South District has 1.26% less than the West District, East District has 6.36% less than the South District and North District has 69.82% less than the East District in respect of land categorised as "net area sown" under semi-medium group of farmers.

Under the medium group of farmers the "net area sown" reported maximum in West District which is 27.74% of the total "net area sown" under the medium group of farmers. Subsequently East, South and North Districts reported 26.14%, 25.47% and 20.65% of total "net area sown" respectively under medium group of farmers. Comparatively East District has reported 5.75% less than the West District, South District has reported 2.57% less than the East District and North District has reported 18.95% less than the South District in respect of land under "net area sown" of medium group of farmers.

The "net area sown" under re-arrange group of farmers in West and East, South and North Districts are reported as 28.53%, 17.04%, 15.23%, 39.20% of total "net area sown" under large group of farmers respectively. Comparatively East District has reported 40.29% less than the West District, South District has reported 10.55% less than the East District and West District has reported 27.22% less than North District in respect of "net area sown" under large group of farmers⁽⁶⁾.

A Study of land holdings by tenancy tenurial system

Operational holdings in Sikkim are not all self-operated by the primary land holders or Bustiwallas themselves. Tenancy tenurial system such as "Adhiadar" and "Kutiadar" etc. exist in Sikkim⁽⁷⁾.

Number and area of operational holdings by tenure and tenancy status in Sikkim are given below in table 5.12.

Table 5.12

Number And Area Of Operational Holdings By Tenure And Tenancy Status in Sikkim

Size class (hec.)	<u>Total Holding</u>		<u>Wholly owned and self operated holdings</u>		<u>Partly owned and leased in holding</u>			Total	<u>Wholly leased in holdings</u>	
	No.	Area	No.	Area	No.	Area owned	Leased in area		No.	Area
1	2	3	4	5	6	7	8	9	10	11
1. Below 0.5	14097	3804	7826	2224	-	-	-	-	6271	1580
2. 0.5-1.0	11438	8156	7766	5567	9	3	2	5	3663	2584
3. 1.0-2.0	13076	18747	10117	14674	10	9	7	16	2949	4107
4. 2.0-3.0	7132	17378	5937	14471	15	21	15	36	1180	2871
5. 3.0-4.0	3794	13124	3261	11297	5	10	8	18	528	1009
6. 4.0-5.0	2254	10015	1968	8751	3	6	7	13	283	1251
7. 5.0-7.5	2599	15630	2387	14366	4	10	13	23	208	1241
8. 7.5-10.0	935	7917	883	7473	2	10	8	18	50	426
9. 10.0-20.0	739	9414	697	8883	2	21	8	29	40	502
10. 20.0-30.0	62	2080	89	2013	-	-	-	-	3	67
11. 30.0-40.0	24	829	24	829	-	-	-	-	-	-
12. 40.0-50.0	4	170	4	170	-	-	-	-	-	-
13. 50.0-Above	14	1754	14	1754	-	-	-	-	-	-
All sizes	56198	109068	40973	92472	50	90	68	158	15175	16438

From the above table it is clear that among the five different sizes of operated land holdings the number of marginal land holdings is the highest. The marginal holdings are either wholly owned and self operated, or wholly leased out. Being too small in size, it can neither be partly owned, nor can it be partly leased out.

The small holdings are more or less wholly owned and self-operated, or wholly leased out to other tenants. Only a few of them are partly owned and partly leased out.

The semi-medium and medium land holdings are also operated fully by the primary holders themselves, or wholly by tenants and a few of these holdings are partly owned and partly leased out.

Regarding, the tenurial tenancy system in Sikkim what is interesting is that the larger the size of land holdings the fewer the number of such holdings leased out to tenants. Above 20.0 hec. the land holdings are exclusively owned and operated by the Bustiwallas themselves.

Under tenurial tenancy system in Sikkim, the Adhiadars and Kutiadars are required to share the produce from land on the basis of 50% with the primary holder and the amount of farm produce as fixed by the land owner will have to be shared by the Kutiadars.

Leased in area by terms of leasing is presented in the following table 5.13.

Table 5.13

Leased in Area By Terms of Leasing

(Area in hec.)

Sl. No.	Size class (Hec.)	Partly owned and partly leased in holdings					Area leased in for Usufructuary mortgage Others terms	Total column (3+4+5+6+7)
		Fixed money	Fixed produce	Share of pofuce				
1	2	3	4	5	6	7	8	
1.	Below 0.5	-	-	-	-	-	-	
2.	0.5-1.0	-	2	-	-	-	2	
3.	1.0-2.0	-	7	-	-	-	7	
4.	2.0-3.0	-	15	-	-	-	15	
5.	3.0-4.0	-	8	-	-	-	8	
6.	4.0-5.0	-	7	-	-	-	7	
7.	5.0-7.5	-	13	-	-	-	13	
8.	7.5-10.0	-	8	-	-	-	8	
9.	10.0-20.0	-	-	-	-	-	-	
10.	20.0-30.0	-	-	-	-	-	-	
11.	30.0-40.0	-	-	-	-	-	-	
12.	40.0-50.0	-	-	-	-	-	-	
13.	50.0-Above	-	-	-	-	-	-	
All sizes		-	68	-	-	-	68	

(9)

Table 5.14
Leased in Area By Terms of Leasing

Sl. No.	Size class (Hec.)	Fixed money	Wholly leased in holdings, area leased in for				Total column (9+11+12+13)
			Fixed produce	Share of produce	Usufructuary mortgage	Other terms	
1	2	9	10	11	12	13	14
1.	Below 0.5	10	1391	154	-	25	1580
2.	0.5-1.0	51	2294	220	14	5	2584
3.	1.0-2.0	60	3628	270	-	149	4107
4.	2.0-3.0	22	2438	210	-	201	2871
5.	3.0-4.0	-	1498	300	4	7	1809
6.	4.0-5.0	-	1168	56	-	27	1251
7.	5.0-7.5	-	1055	186	-	-	1241
8.	7.5-10.0	-	385	41	-	-	426
9.	10.0-20.0	-	465	37	-	-	502
10.	20.0-30.0	-	67	-	-	-	67
11.	30.0-40.0	-	-	-	-	-	-
12.	40.0-50.0	-	-	-	-	-	-
13.	50.0 - Above	-	-	-	-	-	-
All sizes		143	14389	1574	18	414	16438

From the above table it is clear that under tenurial tenancy system of Sikkim, the terms of leasing are varied. Plots of land are leased to tenants, either on the basis of the tenant paying to the primary land holder a sum of money as fixed by the land holder himself, or a fixed produce, or sharing the produce between the land holder and the tenant, besides other terms of leasing. The tenancy system of paying a fixed produce to the primary land holder seems to be popular among tenants, for the number of plots of land of different sizes leased out on fixed produce is much greater than under other terms of leasing. In Sikkim, lands above 30 hectares are not leased out at all.

Land utilisation pattern in La-chen and La-chung

In the past, geographical barriers and inhospitable environment isolated La-chen and La-chung from the rest of the state. Within such isolation, the tribals of these two valleys have developed their own systems of land distribution and land utilisation. The tenurial tenancy system of these two valleys is different from the rest of the state.

In the early part of the 19th Century, La-chen and La-chung were the "Private Estates" of the Queen of Sikkim and in her name were administered by Singthem Souba. Later on, each of the two valleys was brought under the administration of a village chieftain appointed by the Raja. Their village - chief is called Sch-pdon.

It is under the administration of the village chief that a new land utilisation pattern has evolved⁽¹¹⁾.

In La-chen and La-chung, arable lands are scarce and moreover being scattered in different valleys and at different elevations. Statistics on the total area of such land is not always available. Forest lands and pasture are commonly used for grazing purposes. The tribals lead a migratory life. During seasonal migrations, they are required to follow strictly the date fixed by their Schi-pdon for moving their animals from pastures to pastures so that grass could be equally shared by all the animals. Individual ownership of agriculture land exists, but with stringent community regulation of land usage. Their community life is so well knitted that alienation of land within La-chen and La-chung to people outside the community, either by way of sale, or by any other way is strictly prohibited by the "Dzumsha" - the village council⁽¹²⁾.

The land distribution system of La-chen and La-chung is called "sago". It is a communal form of land tenure, land is cultivated on individual basis subject to reversionary rights of the community as a whole. If a Dzumsha-member is away from home and is not fulfilling his obligations as a Dzumsha member, his plot of land could be temporarily redistributed among other members of the community. In other words, it means that each individual has an unlimited right to use a plot of land. The title to land has a communal character and usufructuary by nature. An important

feature of tenurial system in La-chung is that there exists what is called "temporary land". It is kept for future generation, but temporarily allotted to each family by the village assembly. This allotment is redistributed after every three years in order to keep good and bad plots of land in rotation. Tenurial tenancy system of "Adhiadars" and "Kutiadars" as found in other parts of Sikkim does not exist in La-chen and La-chung⁽¹³⁾.

The land utilisation pattern in La-chen and La-chung has evidently evolved from tradition. Survival of the tribals in harsh environment and their adaptability to it have particularly influenced in evolving the land utilisation pattern as it exists presently in La-chen and La-chung⁽¹⁴⁾.

The land use pattern in other parts of Sikkim by no means an ideal one and based on scientific lines, but there is no denying the fact that it is more advanced and better managed than those of other North Eastern hilly states. It is not out of place to mention that in a hilly state like Sikkim the farmers themselves have very well terraced all the paddy fields and some portion of dry lands without any guidance and assistance from government functionaries⁽¹⁵⁾.

Summary

The present land use pattern in Sikkim has developed in a traditional way to meet the requirements of rural people.

The total geographical area of 709600 hectares in Sikkim has been put to different land uses according to altitudes and agricultural census of 1976-77. The land use classification according to altitudes are —

1. Lower Hill with an elevation of 980 ft. - 1640 ft.
2. Mid Hills with an elevation ranging between 4920 ft - 6560 ft.
3. High Hills and
4. Very High Hills having elevations ranging from 6560 ft. - 1640 ft. and 16404 ft - perpetual snow line respectively.

Again the total geographical area has been divided into operational and non-operational holdings. Operational land holdings mean the land used for raising agricultural produce. There are five different sizes of operational land holdings in Sikkim. They are —

1. Marginal land holdings with an area of less than 1.0 hec.
2. Small holdings - 1.0 hec. - 2.0 hec.
3. Semi-medium holdings - 2.0 hec. - 4.0 hec.
4. Medium holdium holdings - 4.0 hec. - 10.10 hec.
5. Large holdings - 10.0 hec. and above.

These five sizes of operational land holdings have six fold land-use classification. They are —

1. Net area sown including all lands cultivated for growing agricultural produce.

2. Current Fallow - It means cultivable land kept fallow in the current year, for instance the "seeding area" not used for cropping.

3. Fallow land excluding current fallow - It includes all lands which are not taken up for cultivation for a period of one to 5 years.

4. Other uncultivated land excluding fallow land - Permanent pastures, grazing grounds and lands under miscellaneous trees and groves are covered in this category.

5. Land not available for cultivation - It means land under private forest, barren and uncultivable land.

In Sikkim the total area of operational land holdings in 109068 of 15.37%.

The non-operational land holdings include permanent pastures and grazing lands, lands used for planting bamboos, thatching grass and other trees etc. for fuel. Barren land and forests are also included in this category. The total area of non-operational holdings in Sikkim is 600532 hectares or 84.63%.

Among different land uses forest is the major land use accounting for 36.15% and barren land occupies 25.40%. The net area sown accounts for 11.04% only.

Marginal holdings cover 11% of total operated area, whereas 13% of the total operated area in the state accounts for large holdings.

The maximum land under net area sown of marginal group of farmers is in East District which is 33.16% followed by West, South and North District with 30.04%, 29.29% and 7.51% respectively.

The net area sown under small farmers of East, West, South and North Districts of Sikkim are respectively 30.71%, 29.79%, 32.90% and 6.60% of total net area sown.

Area under semi-medium group of farmers are 28.98%, 31.34%, 8.74% and 30.94% in East, West, North and South Districts respectively.

Under medium group of farmers the "net area sown" reported maximum in West District which is 27.74%. East, South and North Districts reported 26.14%, 25.47% and 20.65% respectively.

The "net area sown" under large group of farmers in West and East, South and North Districts are reported as 28.53%, 17.04%, 15.23% and 39.20% of total net area sown.

In Sikkim marginal and small land holdings are either wholly owned and wholly self-operated, or fully leased out. Under the tenurial tenancy system the larger the size of land holdings the fewer the number of such land holdings leased out. Land holdings above 20 hec. are exclusively owned and operated by Bustiwallas themselves. The tenancy system of paying a fixed produce to the primary land holders seems popular among tenants.

So far as land use pattern in La-Chen and La-Chung is concerned, in the early part of the 19th century these two valleys were the "Private Estates" of the Queen of Sikkim. Later on when La-Chen and La-Chung were brought under the administration of Schi-pdon, land use pattern was introduced.

The land distribution and utilisation system of La-chen and La-chung are called "Sago". In both the valleys, the title to land has a communal character and usufructuary by nature. The tribals cultivate land on individual basis subject to reversionary rights of the community as a whole. Tenurial tenancy system of "Adhiadar" and "Kutiadar" as existed in other parts of Sikkim is not in existence in La-chen and La-chung. The tenurial system of La-chung has what is called "temporary land" kept for future generation, but allotted to each family for three years. After three years the allotment is redistributed.

The land utilisation pattern in La-chen and La-chung has evidently been evolved and developed from adaptability of tribals to harsh environment and niggardly of nature.

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