

# Chapter 2

## General Background of the Study District

### General

Ilam is the easternmost hill district of Nepal and is bordered by the Indian state of West Bengal in the east and by Jhapa, a Nepal Terai district, in the south. In the north and west is another hill district of Nepal, Panchthar. The district headquarters' town, Ilam Bazaar, is at an altitude of 1,200 metres above sea level. With a geographical area of 1,717sq.km., the district is divided into 47 Village Development Committees (VDCs) and one municipality. The district has three clear geographical divisions in terms of altitude: a tropical region bordering with the Terai in the south below 1,000 metres, a sub-tropical region in the middle of the district with altitudes ranging between 1,000 to 1,800 metres, and a temperate region with altitudes of 1,800 metres and above. The sub-tropical region accommodates about four-fifths of the district population and is diverse in land systems and farming. Micro-climatic variation is stark in this region and most transformation activities are concentrated there. Rainfall during the monsoon is distributed over a period of five months and is conducive to biodiversity.

### Human Resources

Though Ilam is a small district, 230 thousand people live in the area. There are 41,561 households with an average family size of 5.5 (CBS 1991). The urban population accounts for 5.8 per cent, and this has grown over the last decade at an annual rate of three per cent, almost at the same rate the district population has grown. The population density is 14.4 persons per sq.km. In terms of farmland, each farm hectare has a population of 3.2. The literacy rate in the district is 53 per cent; only six other districts of Nepal have such high literacy rates. About two-fifths of the females and two-thirds of the males are literate. Illiteracy is high among the elderly, but the younger population has a literacy rate of virtually 100 per cent.

### Land Resource: Its Use and Productivity

Only 41 per cent of the total land is cultivated. Of 71,032 hectares of cultivated land, 13 per cent is irrigated, and this includes the seasonally irrigated area. The average holding size is 1.7 hectares. The distribution of land is skewed as indicated by a Gini

coefficient of 0.46. Almost one-fifth of the households have less than a 0.25 hectare farm size. About 60 per cent of the households own less than one hectare of land and 40 per cent have more than one hectare.

The use of farmland is dominated by cereal crops, although almost one-fifth of the land is devoted to non-cereal production (Table 2.1). Land under non-cereal production is increasing over time; ten years ago, only about one-tenth of the land was used for crops other than cereals.

**Table 2.1: Land Allocated to Crops and Crop Production**

Crops	% Area	Productivity (MT/hectare)
Maize	46.6	2.19
Rice	22.3	1.95
Wheat	6.5	2.36
Millet	5.8	0.90
Cardamoms	4.2	1.00
Ginger	1.0	13.50
Potatoes	7.7	9.70
<i>Amliso</i> (broom grass)	0.4	6.00
Tea	2.7	0.50
Fruits	1.0	8.50
Vegetables	2.0	3.30

*Source: District Agricultural Development Office, 1994*

Farming is based predominantly on local inputs. The use of chemicals is minimal and is very much concentrated on tea and a few other crops (wheat, maize, and potatoes). The per hectare chemical fertilizer use in 1993/94 was 3.15 kg of nutrients. Use of pesticides is virtually non-existent. Chemicals and farm implements are distributed by 30 institutional and private dealers.

Raising livestock is another major land-based economic activity in Ilam. There are about 40,000 dairy cattle, of which half are improved breeds. Improved breeds are totally stall-fed, impinging less and less on forests and pastures. The powdered milk factory in Biratnagar has worked as a stimulus to gradually substitute local animals with improved ones. Ilam supplies 25,000 litres of milk to Biratnagar every day. The cheese factory in Pashupatinagar, Ilam, uses about five thousand litres of milk on a daily basis. There are 23 milk collection centres for milk marketing services (including 3 chilling centres).

### **Infrastructural Development**

Forty of Ilam's 47 VDCs are approachable by road, at least during the winter. Including the Charali-Ilam black-topped road, the total road length in the district is 180 km. The

unapproachable VDCs are in the northernmost part of the district where economic activities are also limited. Villages in road-linked VDCs are at the most two to three hours' walk from the road head.

Ilam Bazaar receives electricity from a diesel plant; Gorkhe and Pashupatinagar have hydroelectric supplies; and Mangalbazaar and Fikkal receive electricity from private power supplies using small diesel-run generators. In more than 60 villages, small peltric sets are operated privately, meeting the local lighting needs. Telephone services are available in seven places, including Ilam Bazaar, and there are 250 lines.

## Public Institutions

Ilam is rich in terms of institutional infrastructure. There are 270 primary schools and 60 middle and high schools in Ilam. There are 30 health posts (including a hospital in Ilam) and 37 post offices. There are 15 bank branches (including Small Farmers' Development Projects) and 10 cooperatives. Data on institutions and the average number of families served by them are presented in Table 2.2.

Table 2.2: Public Infrastructure in Ilam

Institutions	No. of Units	Families Served per Unit
Primary school	270	154
Middle or high school	70	3,274
Health posts/hospitals	30	7,640
Post offices	37	6,195
Bank offices	15	15,281
Cooperatives	10	
Telephone services	7	
Milk collection centres and chilling centres	23	

Source: District Agricultural Development Office, Ilam, 1994

## Markets and Hat Bazaars

Ilam has a developed and dispersed network of *hat* bazaars (periodic markets) and market centres. Weekly and bi-weekly *hat* bazaars are held in seven places and there are at least 13 marketing centres with facilities for daily transactions of goods and services. Unlike in other hill districts, urbanisation is not limited to one or two market centres. The dispersed market network is the result of an improved road network and dispersed development activities.

## Development Indicators

Some of the development and distribution indicators for Ilam and all the hills of Nepal are presented in Table 2.3. The Gini coefficient for farm land distribution is 0.46,

**Table 2.3: Distribution and Development Indicators of Ilam**

Indicators	Ilam	Nepal Hills
Gini coefficient for landholdings	0.46	0.47
Gini coefficient for landholdings below 1.0 hectare	0.17	0.29
Sen Index (using 1.0 hectare as a cut-off point)	0.28	0.54
Child literacy rate	71.2	61.5
Girl-boy literacy ratio	86	68
Child activity rate	14.6	26.5
Child marriage rate	1.5	3.3

Sources: Sharma (1994) and Sharma (1996)

almost the same as in other hill districts of Nepal. Disparity in land distribution among smallholders is much less pronounced in Ilam. The Sen Index, which measures the skewed characteristics of land distribution among smallholders, is almost half those of the hill districts in Nepal. This indicates there is no serious problem of near landlessness.

Ilam is ahead in terms of the child literacy rate and has a much higher girl-boy literacy ratio. The child activity rate is almost half those of other hill districts. The child marriage rate is less than half the general rate applicable to other hill areas.

### **Ilam and Neighbouring Districts Compared**

Data enabling the comparison of Ilam with immediate neighbouring hill and mountain districts are compiled in Table 2.4. The comparison is made in terms of major socioeconomic characteristics. The districts considered for comparison are Panchthar, Terhathum, Bhojpur, and Sankhuwasabha.

An average household in Ilam has 1.37 hectares of cultivated land compared to an average of only 1.1 hectare in the neighbouring five hill districts. Grasslands and private household forests in Ilam are several times greater than in other districts. Homesteads occupy 0.06 hectares in Ilam compared to an average of only 0.04 hectares in other districts. The district has fewer land parcels per farm and more ownership of farming tools and equipment.

The average household cash income in Ilam is 36 per cent higher than the average cash income in other districts. Consequently, the average annual household expenditure is also significantly higher, indicating a better standard of living. Expenses on education and health are also distinctly higher, suggesting better investments in human capital formation. As a result, the literacy rate, for both males and females, is higher in Ilam. The superiority of the district is also demonstrated by the primary school enrollment figures and primary education.

Table 2.4: Comparative Socioeconomic Position of Ilam District in Relation to Other Neighbouring Districts

Particulars	Ilam	Other Districts					
		Ave.	Panch-thar	Terha-thum	Dhan-kuta	Bhoj-pur	San <sup>1</sup>
Total population (1991)	229214		175206	102870	146386	198784	141903
Total households (1991)	41450	28243	31452	18379	27425	37058	26902
Total area (sq. km.)	1703	1560	1241	679	891	1507	3480
<b>Education</b>							
Primary school enrollment	39337		29984	20873	24850		
School enrollment rate	0.22		0.20	0.23	0.19		
Literacy rate (%)	67.9	60.4	58.4	68.7	58.9	56.2	59.6
Male	43.5	40.7	41.3	44.3	38.3	39.4	40.3
Female	24.4	18.7	12.2	24.4	20.6	16.8	19.3
Expenses on education (Rs/yr/family)	798	563	469	742	478	562	566
<b>Assets</b>							
Cultivated land (ha/HH)							
Upland	0.34	0.65	0.82	0.67	0.88	0.41	0.46
Lowland	1.03	0.46	0.40	0.47	0.53	0.32	0.56
Total	1.37	1.10	1.22	1.14	1.41	0.73	1.02
Grassland (ha/HH)	0.20	0.07	0.06	0.11	0.10	0.04	0.05
Private forest (ha/HH)	0.50	0.07	0.06	0.08	0.09	0.04	0.09
Homestead (ha/HH)	0.06	0.04	0.05	0.06	0.04	0.03	0.04
Total holding (ha/HH)	2.13	1.29	1.39	1.39	1.64	0.84	1.20
Operating holding (ha/HH)	1.43	1.19	1.24	1.41	1.30	0.81	1.17
Parcels (no/household)	3.1	3.8	4.4	2.6	3.7	4.2	4.3
Value of livestock shed Rs/HH	7332	5422	5356	5982	4780	6177	4817
Value of tools owned (Rs/HH)	1337	946	929	1152	799	1127	725
<b>Income and expenses</b>							
Avg. cash income (Rs/yr/HH)	18147	13351	10883	21707	11008	12089	11107
Income from livestock (Rs/yr/HH)	2975	1831	1402	2453	1878	970	2453
Avg. annual expenses (Rs/HH)	13430	10284	6934	14476	10963	9027	10018
Expenses on education (Rs/yr/family)	798	563	469	742	478	562	566
Expenses on health (Rs/yr/family)	253	238	50	368	432	181	158
Expenses on asset purchase (Rs/yr/HH)	109	441	313	803	242	434	413
<b>Activity intensification and productivity</b>							
Percentage of hired labour (man days/yr/family)	49	33	46	45	17	42	17
Cropping intensity (%)	115	159	167	150	158	149	173
Households using fertilizer (%)	42.5	38.2	41.0	45.7	57.6	20.0	26.7
Avg. credit borrowed (Rs/family)							
Institutional	19600	11823	10895	15106	5565	14529	13021

Table 2.4: Comparative Socioeconomic Position of Ilam District in Relation to Other Neighbouring Districts (Cont'd)

Particulars	Ilam	Other Districts					
		Ave.	Panchthar	Terhathum	Dhankuta	Bhojpur	San <sup>1</sup>
Informal	8360	5713	2600	8557	3679	8142	5589
Cattle milk productivity (lit/yr/animal)	458	298	261	379	283	329	240
Total milk production (lit/yr/family)	557	301	319	283		904	
<b>Dependency on public forests</b>							
Fuelwood consumption (kg/yr/family)	6801	4227	8863	2766	3585	3219	2703
From public forests (%)	8.1	33.9	18.4	31.6	35.0	54.1	30.5
From own forest (%)	59.5	37.6	45.3	38.8	30.0	29.8	44.0
Bought (%)	5.0	5.5	3.4	7.9	6.0	4.4	6.0
Others (%)	27.4	23.0	32.9	21.7	29.0	11.7	19.5
Fodder from public forest (%)	7.8	24.5	20.6	22.2	25.0	29.4	25.2
Fodder from private sources (%)	92.2	75.5	79.4	77.8	75.0	70.6	74.8

Source: APROSC 1991, 'Nepal Hill Fruit Development Project: Baseline Survey Report on Ilam, Terhathum, Panchthar, Sankhuwasabha and Bhojpur'

#### 1 Sankhuwasabha

In Ilam, 42.5 per cent of the farms use some amounts of chemical fertilizer compared to only 38.2 per cent of households in the other districts covered. Average institutional and informal borrowing by households is also higher in Ilam. Ilam was one of the few districts in which the priority sector credit programme was launched in the mid-eighties. Hence, it has extended the lending activities of Nepal Banijya Bank and Agricultural Development Bank. The emerging cash crop activities, including tea plantation and dairy activities, have encouraged the Banks to expand lending activities in Ilam.

In Ilam, livestock, as a part of the farming system are comprised of more improved breeds of animals. An average household in Ilam produces 557 litres of milk per year compared to only 301 litres in the other five hill districts. Productivity of milch animals likewise is more than one and a half times higher in Ilam.

Due to a higher standard of living and processing activities (especially of cardamoms), the consumption of fuelwood per household is quite high. However, only 8.1 per cent of the fuelwood and 7.8 per cent of the fodder requirements are drawn from public forests compared to an average of 33.9 per cent and 24.5 per cent respectively in the other five hill districts. This indicates Ilam's lower dependency on public forests, which is a positive feature from the sustainability perspective.