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Master Program in Human Ecology



With best compliments
from Indra pr
sad Mandal

**Study on the Socio-Economic
Conditions of Rural Poor
and
Planning for Sustainable
Rural Development in Nepal:
*A Case Study of Mahottari District***

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LIST OF ABBREVIATIONS

APP	Agricultural Perspective Plan
APROSC	Agricultural Projects Services Centre
CBO	Community Based Organisation
CBS	Central Bureau of Statistics
CDPS	Central Department of Population Studies
CFP	Community Forestry Programme
DADO	District Agricultural Development Officer
DDC	District Development Committee
DDP	District Development Plan
DFO	District Forest Officer
DOF	Department Of Forest
EPC	Environmental Protection Council
GDP	Gross Domestic Production
GIS	Geographical Information System
GO	Government Organisation
HDI	Human Development Index
HDR	Human Development Report
HMG	His Majesty of Government
IDRC	International Development Research Centre
IGP	Income Generation Programme
IMF	International Monetary Fund
INGO	International Non-governmental Organisation
IPM	Integrated Pest Management
JMA	Johan Meller Association
LDO	Local Development Office
LGP	Local Governance Programme
LTF	Local Trust Fund
MDDP	Mahottari District Development Profile
MIMAP	Monitoring Microeconomic Adjustment Policy
MOF	Ministry of Finance
MOPE	Ministry of Population and Environment
NAP	National Annual Plan
NEPAP	Nepal Environmental Policy and Action Plan
NGO	Non-governmental Organisation
NPC	National Planning Commission
NR	Nepali Rupees
ODI	Overseas Development Institute
PAF	Poverty Alleviation Fund
PDDP	Participatory District Development Programme
PMS	Poverty Monitoring System
PPP	Purchasing Power Purity
PRA	Participatory Rural Appraisal
SGF	Seed Grant Fund
Sq.K.	Square Kilometre
TU	Tribhuvan University
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VDC	Village Development Committee
VDP	Village Development Programme
WB	World Bank
WCED	World Commission on Environment and Development

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ABSTRACT

Nepal is one of the least developed countries in the world and about 42 per cent of its population live below the poverty line. Therefore, elimination of poverty has been a main issue for the development of the country. Despite a series of planned developmental efforts with special focus on poverty elimination, the country is still beset with rampant poverty. Lacks of capital, low education, political instability, unequal distribution of resources, limited skills are among the main constraints of the development of the country.

With an objective of studying the socio-economic conditions and identifying constraints of sustainable rural development, this study was conducted in one of the 75 districts of Nepal. The study showed that the majority of people in the study area were living under poverty line with no regular or sustainable sources of income. Lower education, unemployment, low wage labour, poor institutional credit facility and exploitation by local moneylenders, rapid population growths were other developmental constraints. Since population growth, environmental degradation and poverty are interrelated; rapid population growth has added daunting pressure on productive land, which have negative effects on the sustainability of natural environment.

In order to improve the livelihood conditions of people in the study area, there is a need to implement special target programs (i.e. off farm income activities) as well as labour intensive work industries like agro-based industries. Additionally, better credit facility, skill-oriented training to the poor and lower caste section of society is needed to improve the socio-economic conditions of the society. Mobilisation of local resources through participatory approach would help them attain food self-sufficiency and self-reliance as well as improve their health, well-being and economic viability in the long term.

CHAPTER I

1 Introduction

1.1 Background

Nepal is a landlocked country sandwiched between the Tibetan autonomous region of China to the North, and India to the West, South and East. Nepal is geographically located at 26°22' to 30°27' N latitude and 80°04' to 88°12' E longitude. With a total area of 141,141 km² Nepal stretches over 800 km in a northwest- southeast direction, and measures between 115 and 200 km in width (Shrestha, 1981). It has varied geographical features with high mountains in the North and terai plain in the South. Due to large variation in altitude across North-South direction, a wide range of climatic conditions is experienced at the same time in Nepal. Politically, Nepal is divided into 5 development regions, 14 zones, 75 districts and about 4000 village development committees (CBS, 1991)

Nepal is ranked as one of the least developed countries in the world and lags well behind its South Asian neighboring countries with respect to many socio-economic indicators. Human Development Report (HDR) 2001 ranks Nepal as 129th in Human Development Index (HDI) value, which is below all its South Asian neighbors except for Bangladesh (UNDP, 2001). Slightly more than half of its population has access to safe drinking water. Almost 49 per cent of all children under three are underweight, and 72 per cent of all females in the country are illiterate. The literacy rate in Nepal is 41.8 per cent. Per capita income of Nepal is about \$220, however, there exists marked disparities among income groups (WB, 2001). The top 10 per cent of the population consumes more than the bottom 50 per cent taken together. In addition, the inequality of income distribution has increased over the last decade. Population is burgeoning faster and the economic growth is slower. Population growth per annum in Nepal is 2.32 per cent (MOF, 2001).

The major causes behind environmental degradation in Nepal are soil erosion, loss of biodiversity, pollution, deforestation, landslides, population growth and unclean drinking water etc. In rural Tarai region of Nepal environmental

degradation takes place specially due to soil erosion, deforestation, excessive use of chemicals and fertilizers in agricultural crops and improper dumping of households wastes and sanitary (MOPE, 2000).

1.2 Statement of the Problem

Despite a series of planned development efforts with special attention to poverty reduction, Nepal is still beset with rampant poverty. About 42 per cent of population is living below the nutrition-based poverty line (NRs. 4404 per capita). It is about 53 per cent if evaluated against \$1 a day in purchasing power parity (PPP) terms. Since the 1970s, the absolute number of income-poor has risen steadily to around 9 million out of 22 million people in the country today – with the incidence of poverty disproportionately higher in rural areas and among women (UN, 1999).

Nepal is divided into three ecological belts – mountain, hill and Tarai, which all run parallel across its length from East to West (CDG, 1998). This thesis has focused particularly the Tarai region of Nepal. Tarai region is the southern plain part of Nepal and covers 20 districts of Nepal and about 23 per cent of the total land area. Tarai is the major food production pocket of Nepal and supports about 47 per cent of total population (CBS, 1999).

Tarai region is inhabited by 40 per cent of ethnic and cultural groups of people. Mushahar, Khatwe, Malah, Dusad, Dom, Chamar, Tharu etc are the backward castes and forms a major share of population in the Tarai community. The per capita income of Mushahar community is extremely low which are only 15 per cent of the per capita income estimated by the World Bank (Giri, 1994). Majority of the people living in this area are poor having very limited access to resources. They hold small size of land or no land at all. The average operated landholding per household is one hectare and average family size of seven members, in terai. The estimated per capita income of the Tarai poor is less than 45 per cent of the rural non-poor (WB, 2000).

Despite the persistent efforts from government and non-government sectors, Tarai region in general and the districts, where these backward castes are in majority, in particular have always been lagging behind. Therefore, there is need to analyze and identify the constraints of sustainable development in this area. It is in this context the present study has been undertaken with the following objectives:

1.3 Objectives of the Study

- a) To study the socio-economic conditions of rural poor in the Tarai region of Nepal
- b) To identify and prioritize the problems of the target community and suggest the mitigation measures
- c) To study the constraints of sustainable rural development in the Tarai region of Nepal
- d) To suggest recommendations/suggestions to meet the needs of the target communities in general

1.4 Scope of the Study

This study aims to provide a realistic picture of socio-economic conditions of rural people in Tarai region of Nepal. Efforts have been made to understand and present the economic, social and cultural situation of the people in study area. This study also serves as a baseline database of study area. The socio-economic information collected through this survey relates to basic livelihood assets, sources of livelihoods and crude livelihood outcomes. Further, the constraints of sustainable development are identified in study and some mitigations measures have been suggested. This study will be of importance to academicians, students and others concerned with economic and social development. It will also be of use to policy makers in developing plans for the upliftment of the socio-economic conditions of rural people in Tarai region. In this study, efforts are made also to find alternative sources of income so as contribute in the poverty alleviation of Tarai region.

1.5 Limitations of the Study

As there does not exist the system of record keeping at household levels about the income, expenditure, production, consumption etc. the information collected has been elicited from the memory of respondents. It is thus liable that there may have been some recall bias in the information collected. However, possible efforts were made to minimize the errors by cross-questioning, cross-checking and visual observations. Further, the respondents were seen reluctant towards revealing their income level or reporting lower income than the real one and exaggerating their expenditure. The study is based on a limited sample size, which may not represent fully the exact situation of the district or terai region as a whole; however, it would certainly give a better picture of the study villages. Still the efforts were made to select the study area, which would better represent the situation of district as well.

1.6 Organization of the thesis

This thesis proceeds with introducing the research context, objective, scope and limitations of the study and statement of the problem in **the first Chapter**. Literature review concerning the study is presented in **Chapter II**. A brief description of research methodology is presented in **Chapter III**. General information about the selected study areas (VDC¹s) of Mahottari District is presented in **Chapter IV**. **Chapter V** deals with the major findings (result and discussion) of the field survey. This chapter gives the general information about census and literacy and, describes the livelihood assets status, access of people to various resources, livelihoods outcomes in terms of income, expenditure and food security status, discusses problems and priorities of the poor, primary environmental problems, role of NGOs and GO in income generation programme in study areas etc. A short description for strategic planning for sustainable rural development is presented in **Chapter VI**. Finally, conclusions and recommendations are presented in **Chapter VII**.

¹ Village Development Committee – A political committee representing about 9 villages (Wards) with some 5000 population living in that area.

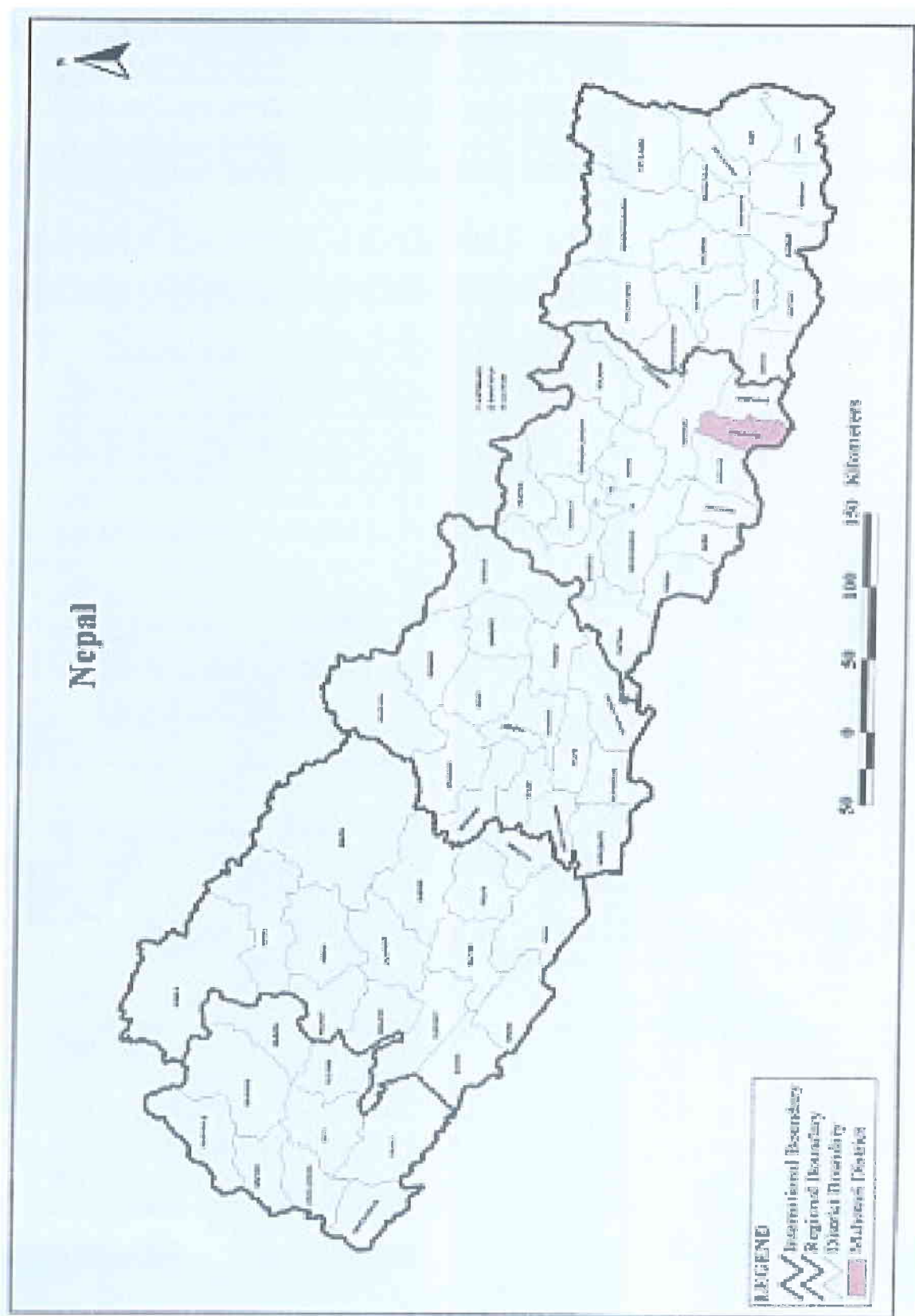


Figure 1. Map of Nepal

CHAPTER II

Literature Review and Concepts and Definitions

II. A Literature Review

1 Present situation of poverty in Nepal

Majority of people in the rural areas of developing countries in Southern Asia are living in abject poverty. They are primarily deprived of basic needs such as food, cloths, shelter, basic education, clean drinking water and health care. Growth of population in Southern Asia has added daunting challenge to development and existing environment (Shrestha, 1993).

In Nepal, the size of population living below the poverty line has been estimated as 42 per cent, 17.1 per cent of which is estimated to be ultra poor. The poverty situation is more rampant in rural areas (44% poor and 17.6% ultra poor). Similarly, in the Tarai region 42 per cent population is below the poverty line including 13.3 per cent ultra poor (Baidya, 1999). This estimation is based on per capita consumption expenditure. Calorie intake received from food has been treated as yardstick for poverty measure. The living standard survey has determined 2124 calorie as per capita per day necessity. The per capita annual expense to purchase that calorie equivalent of food is worked out to be NRs. 2637. Enhancing this expenditure to cover non-food expenses the per capita annual expenditure is estimated at NRs. 4404 (Sharma, 2001).

The reduction of poverty requires that poor are able to participate in productive economic activities that enable them to generate an adequate and secure standards of living. In the past, it was often believed that development could achieve this goal. However, it has become apparent now that agriculture on its own often cannot provide the means of escaping poverty for the majority of rural poor (Ellis, 2000).

Poverty alleviation has been the major concern of all development policies of Nepal. Despite various efforts of the government, there has been no significant

reduction in poverty, particularly rural poverty. In fact, rural-urban migration has added a new dimension on poverty in recent years (Chhettry, 2001).

2 Rural Economy

Agriculture

Agriculture is the mainstay of Nepalese economy, providing a livelihood for over 80 per cent of the population and this sector accounts for 43 per cent of the GDP (Gross Domestic Production). It provides employment to 76 per cent of the total active population and brings in 37 per cent of total revenue of Nepal government (MOF, 2001). Only 24 per cent of the total area in Nepal is used as cultivated land. Out of them, the Tarai region constitutes 43 per cent cultivated land. However, the production and productivity of many crops is very low. Particularly in the Tarai region, farming is mainly of subsistence type and yield per unit of land is very low (CBS, 1999).

About 90 per cent of people in Nepal live in rural areas and most of them are engaged directly or indirectly in subsistence agriculture. Majority of the people living in this area are poor farmers having very limited resources. They have small landholding size or no land at all. Landless rural poors mainly depend on wages for their livelihood (World Bank, 1991).

Literacy among low castes

On an average, 85 per cent of occupational caste/ ethnic groups in the Tarai region in Nepal are illiterate. The literacy rate among Mushahar caste is 4.9 per cent, Chamar is 9.8 per cent and Khatwey is 12.4 per cent (Chhetry, 1996). Despite constant efforts and high investments made by the government to eradicate illiteracy from socially deprived and disadvantaged low caste/ethnic groups, there has hardly been any improvement.

Touchable and Untouchable Castes

Based on untouchability, people of all castes in Nepal are classified into two broad categories – untouchable castes and touchable castes. Untouchable castes include Mushahar, Chamar, Khatwe, Dusad, Tatma, Kami, Sarki, Damai, etc. People of these castes are usually landless and work as laborers who account for 11 per cent of the total population in Nepal (Sharma, 1994). Untouchable caste people are mostly clustered around the eastern and middle Tarai region (the present study area) and make up about two per cent of the total population of Nepal. These people are largely overlooked in many developmental activities because of their lack of education, awareness, resources and opportunity (APROSC, 1985).

Touchable castes constitute all others except those described above. Among all touchable castes in the study area, Tharu (considered as indigenous people), are in majority. (Gurung, 1989). They make up about 6.5 per cent of the total population of Nepal and are mostly concentrated in the Tarai region (Chhetry, 1996).

Distribution of resources

Social and economic structures of the community have accelerated the acute disparity in the distribution of production assets disfavoring lower class community. Historically, the lower class people have been disfavored in the distribution of critical resources such as land, education and employment. Widespread inequality between lower class and upper class community is the main barrier to economic growth of the disadvantaged group in particular and society in general. The opportunity for participating in education is largely limited to higher castes with more resources and landlord groups (Bista, 1992). Governmental resources are mainly diverted to promote the welfare of well to do groups leading to the perpetuation of inequality among caste groups.

3 Population, Poverty and Environment

The close inter-linkages among limited resource bases, rapid population growth, environmental degradation, low levels of social development and a widespread poverty present a complex developmental challenge in Nepal. Due to the poverty, majority of the people in Nepal are deprived of education and are not aware of the importance of good environment (EPC, 1993).

Poverty is considered as a cause and an effect of environmental degradation (UN, 1972). Various causes including air and water pollution, soil erosion, atmospheric changes, landslides, land degradation and deforestation etc. lead to the degradation of the environment. Environmental degradation has mainly three damaging effects. It harms human health, reduces economic productivity and leads to the loss of amenities. Additionally, it imposes significant costs on the poor population through low and declining farm productivity. This leads to reduced incomes, and raises production and households' maintenance costs (UNEP, 2001).

Rapid growth of population and poverty is the important determinant of environmental degradation process in Nepal. This situation puts tremendous pressure on available natural resources (Karki, 2000).

The population, poverty and human resource development are closely related and inter-linked. High rate of population growth has caused a proliferation of poverty due to sub-division of limited resources. Poverty itself has caused poor population to produce more working hands to sustain the family, which contributed in increased population growth rate (Devkota, 2001).

In Nepal, factors that contribute to forest related environmental deterioration are mainly activities of poor who are about 42 per cent of the total population. Their activities include uncontrolled exploitation of firewood and timber from the forests and encroachment of the forest and other virgin lands (MOPE, 2000).

Particularly in the Tarai region of Nepal, environmental degradation are more related to the use of natural resources patterns, soil erosion, land use patterns, deforestation, excessive use of pesticides and fertilizers for farming, lack of proper land for the dumping of households wastes, improper cultivation and overgrazing etc (Devkota, 2001). Factors contributing to declining forest coverage include resettlement programmes implemented in the Tarai region and the increasing population. There is a heavy dependence on forest resources for cattle feed, fuel wood, timber and other industrial products. As a result, deforestation in Tarai has taken place more alarmingly than in the hills (UNEP, 2001).

Over 47% of the total populations in Nepal live in rural areas of Tarai. The population of Tarai region is increasing at an alarming rate. The situation has created a vicious circle of poverty, exploitation of marginal land, soil erosion and loss of productivity. It is a major hindrance to the well being of rural people in Tarai region of Nepal (Niraula, 2000).

II B Concepts and Definitions

Rural

The meaning of the word rural changes from time to time and place to place. It is used in the study area to refer to places where population is not as dense as in urban places. Rural settlements of the study areas include families scattered over the landscapes, with small clusters in villages. Rural life tends to be dominated by farming, along with forestry and fisheries. Particularly, poverty and illiteracy are higher among rural people (Fear and Zweller, 1985).

Community

A community consists of sectors and groups of people with different socio-economic status, ethnic background, caste status etc., and differing values, interests, aspirations and wishes (Furze B et al. 1997). Key variables of community applied to this study are the settlement pattern, religion, occupation, education, food security and current place of residence, income

and consumption, health care, decision-making pattern, values, and kinship of a group living in a common place.

Culture

Culture means the entire way of life of a society. It contains certain elements including norms, values, beliefs, knowledge and material goods. Resource conservation and development literature strongly emphasizes the importance of understanding the role of culture in human interaction with the environment (Furze B et al. 1997). According to Furze et al, traditional culture is intimately bound up with and directly supports the basic social, economic, and ecological processes of society. Traditional culture is dynamic, is always undergoing change, and as a result is not inimical to the process of development.

Poverty

Poverty is hunger. Poverty is lack of shelter. Poverty is being sick and not being able to see doctor. Poverty is not being able to go to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean drinking water. Poverty is powerless, lack of representation and freedom (World Bank, 2002).

Livelihoods

Livelihoods are defined by UNDP as the assets, activities and entitlements, which people utilize in order to make a living. Assets, in this particular context, are defined as not only natural/ biological (i.e., land, water, common property resources, flora, and fauna), but also

- Social (i.e., community, family, social networks),
- Political (i.e., participation, empowerment),
- Human (i.e., education, labour, health, nutrition),
- Physical (i.e., roads, clinics, markets, schools, electricity, bridges) and
- Economic (i.e., jobs, savings, credit). (UNDP, 1999)

The human Ecological Approach

According to Slocome and Nelson (1992), Human ecology can provide the framework and rationale for using basic scientific research to understand the human context and implications of protection and management (Sjamsudin, 2001). The human ecological approach is the integrated as well as holistic approach to the development of mankind, providing the basis necessities in life and the opportunity to grow spiritually and morally, economically and socially, by establishing and sustaining an environment conducive, adaptive and supportive of a person's well-being. In fact, community is a social laboratory for the people, where different problems can be analyzed and solved with human ecological approach. There is an enormous diversity in the way that people behave within economical, ecological and social problems in the society. So, this study has tried to find underlying factors for people's action with the help of interdisciplinary approach. This study also involves relationship between different disciplines because it is aimed at sustainable rural development.

The key variables regarding rural, community and culture, the human ecological approaches to studying human interaction with the environment; and criteria for poverty and livelihood among people collectively provide the context in which this study is placed.

CHAPTER III

MATERIALS AND METHODS

This study was designed to provide a realistic picture of the existing socio-economic scenario of Tarai belt of Nepal. Accordingly, the questions to draw information on income and consumption pattern of rural households, demography, occupation, status of women and children, labor and wages, agriculture and environment, loan, education, health, nutrition, sanitation, household assets, access to different resources etc. were included in the interview schedule.

3.1 Sample Size and Selection

Based on through literature review, consultation with relevant people at National Planning Commission (NPC), and discussion with other stakeholders at the Local Development Ministry, two Village Development Committees (VDCs) of Mahottari district *viz.* Meghnath Gorhanna and Ramgopalpur were selected purposely for the study. Available information about these two selected VDCs are provided under the topic Study Area'.

Based on the variations observed during pre-testing and the output of Participatory Rural Appraisal (PRA) exercises, the sample size was reasonably set as 85 households from both the VDCs together, for this study. There were total of 953 households in Meghnath Gorhanna VDC and 855 households in Ramgopalpur VDC. Of these total households, 45 households and 40 households were selected covering all the nine wards of each VDC Meghnath Gorhanna and Ramgopalpur respectively. The interview schedule was pre-tested before proceeding for the main survey. For the pre-testing, 10 households in the study area were interviewed and interview schedule was modified according to felt-needs.

A list of total households for each VDC was obtained from the respective VDC Offices and Ward Offices and this list constituted the sampling frame. This list also gave information about their ethnic/caste categories.

3.2 Participatory Rural Appraisal (PRA)

PRA has been described as a growing family of approaches and method to enable local (whether rural or urban) people to express, enhance, share and analyze their knowledge of life and conditions, to plan and act (Chambers, 1994). PRA, being widely recognized as one of the efficient and important data collection methods in social sciences researches, was conducted in each of two VDCs. This was conducted with the help of two local research personnel - an agricultural economist and a sociologist working at different research centers in Nepal. VDC Chairman, Ward Chairmen and other committee members as well as some key informants like school-teachers, academicians, retired officers, development workers from different local non-governmental organizations and some knowledgeable farmers were invited to and gathered together for PRA.

It was conducted mainly to group the households into different strata of wealth (wealth ranking) assessed by participants and to identify and prioritize the major problems faced in the community. They were asked how they assess wealth and poverty and rigorous discussion was held. The ideas of respondents were noted down.

The list of households collected from VDC and Ward Offices was shown to participants and they were asked to put each and every household in different three strata based on economic status according to their perception. Participants discussed, identified and grouped all the households of VDC into three main economic categories, *viz.* Rich (EC-I), Medium (EC-II) and Poor (EC-III). This method avoids assessment being made by an outsider using single or simplified criteria. The general characteristics of households under different economic categories listed by participants are as follows:

Rich

- Food security for all round the year or more
- Enough land for cultivation and some rented out
- Own animals for meat, milk and draft purposes

- Good access to education, health services and other services
- Pensioners/good services/services outside the country

Medium

- Food security for less than a year and more than six months
- Have some land for cultivation – if cultivated with proper intensification, may support the family food requirement
- Raising some animals for meat, milk and income
- Relatively lower access to social services
- Working elsewhere as farm labor or in some non-agricultural activities

Poor

- Food security for zero to six months
- Working as wage laborer in agriculture or non-agricultural sector
- Have very little or no land at all
- Only a few animals or no animals raised
- Little or no access to education and other social services

The total households in each economic stratum was then categorized into four social classes to understand how their access to resources are conditioned by social and cultural factors within a given economic category. Caste-wise analysis and study is important because, in Nepal also the caste system is very much prevalent, as in many developing countries, and their social status and access to many resources and institution are largely determined by one's caste. Late King Prithvi Narayan Shah, who is regarded as the father of nation, categorized the all the then existing castes into four main classes and identified activities/occupation according to caste. These are – Brahmin, Chhetri, Baisya and Sudra. Based on their occupation (or ultimately caste) one's social status is determined. For example, pig rearing is not allowed among Brahmin community but only among lower castes. For the convenience of analysis and interpretation of collected information, few ethnic

groups having some resemblance have been considered together in each of four social classes as follows:

Social Class I (SC-I): Brahmin, Chhetri, Giri

Social Class II (SC-II): Yadav, Dhanukh, Kanu, Kalwar, Kurmi, Raut, Sonar, Koiri, Muslim, Teli

Social Class III (SC-III): Tharu, Danuwar

Social Class IV (SC-IV): Dalits: Bin, Dom, Dushad, Hajam, Kewat, Khatwe, Lohar, Mushahar.

These social classes were formed based on the ethnic groups' socio-economic position and their access to resources normally seen in the community. Brahmin and Chhetris (SC-I) are the elite castes in the caste hierarchy system existing in the community and usually they have greater access to resources and institutions. Their participation in politics, social and religious affairs is overwhelming in comparison to others.

SC-II includes middle class households with respect to social and economic status. SC-III covers relatively disadvantaged and resource-poor groups mainly Tharu and Danuwar. Tharu and Danuwar are relatively open hearted and easy-going people who believe anything easily and thus more vulnerable to fraud works in the society. Dalits (SC-IV) are the lower castes in the caste hierarchy and usually most disadvantaged group having lesser access to resources and institutions.

The number of households to be sampled from each category was taken in proportion to the number of households enlisted in the respective category in each caste group (social class). Households were selected using simple random sampling method from each socio-economic category.

Table 1: Distribution of Sample Households

Economic Classes	Social Classes				Total
	SC-I	SC-II	SC-III	SC-IV	
EC-I	2	3	8	0	13
EC-II	0	8	9	0	17
EC-III	1	12	18	24	55
Total	3	23	35	24	85

Source: Study Area

3.3 Data Collection

Both primary and secondary information was used in this study. As a research tool, qualitative research methodology was used to collect the primary data. Qualitative research recognizes human realities and experiences that are found in local people’s perceptions (Jennings, 2001). The research is based on the assumption that a qualitative research can achieve a more holistic view of issues and a wider picture in fulfilling the objectives of the study. The primary and secondary information was collected during February/March 2002.

3.3.1 Primary Information

3.3.1.1 Households survey

The primary information from the sample households survey in study VDCs was collected using structured and pre-tested interview schedule through personal interview method. For the collection of primary information from rural villages, the interview method has been deemed as the most important tool. In the personal interview method, researcher gets optimum chance to interact with the respondent and draw the information to the possible extent and cross verify at the spot. Besides, he/she visualizes the existing situation from many angles while visiting the household. For the verification of some information and to collect additional information Participatory Rural Appraisal was practiced. Further, some primary information was also obtained through group discussions, field observation and focus group discussion etc. To collect qualitative information, a checklist and some open-ended questions were used.

A semi-structured interview schedule was used to collect information from concerned institutions, key informants, and stakeholders. This type of interview was used to bring flexibility to both the researchers and respondents and it allows collection of relevant and additional information on the subject. For this purpose, local school teachers, District United Nations Development Programme (UNDP) Co-ordinator, VDC Chairman and District Development Committee (DDC) members and Chairman, political representatives, Non-governmental organizations (NGOs) representative and environmentalists, district level offices like District Agricultural Development Office (DADO), District Forest Office (DFO) and Local Development Office (LDO) and, at the central level, National Planning Commission and few other veterans of different disciplines were visited and interviewed. For this interview, the respondents were chosen one week in advance. Attempt was made to incorporate both the sexes as respondents in the interviews.

3.3.1.2 Field Observation

Field observation is one of the appropriate tools to collect information about various issues, including socio-economic conditions of people. It helps to gather information about the activities, performance, and the behaviour of people related to the subject under study. Besides, it gives a vivid picture of the situation to the researcher and helps in verification of the information collected. Researchers observation was mainly focused to understand the contributions, of people from different sectors in the study area, towards the local development. Further the general socio-economic condition of the study area and characteristics of different social and economic class people/households were also given due consideration. It is said that activities of poor people and environmental degradation are inter-related, i.e., activity of poor causes environmental degradation and it consequently affects poor themselves. Thus, activities of poor in the study area were also closely observed to understand if there were really any such relations in the study area as well.

3.3.1.3 Focus Group Discussion

Focus groups are generally used to extract information about the attitudes and opinions of respondents on a certain issues of the communities. For this study, focused group discussions were organized to collect the opinions of local residents about different aspects of society. Further the focused group discussion sought to gather their opinions and attitudes towards the upliftment of their socio-economic conditions. During the survey, three group meetings were held on the three separate occasions, each group consisted of 6-7 family heads belonging to different social and economic categories. Also the information on type and magnitude of the problems existing in the community and possible interventions required for uplifting socio-economic conditions of the rural poor, were sought. Most of the participants, however, expressed their positive and co-operative attitude towards the problems of the communities and for their solution.

3.3.2 Secondary information

Secondary information was collected through reviewing various published and unpublished documents/reports from the district, regional and central level government offices, research organizations and universities.

3.4. Data Processing and Tools of Analysis

Collected data were rechecked on the spot as well as central editing was also done to see the consistency in data and minimize the error if any. Data were compiled and tabulated properly. Processing of information was done using computer packages - MS Excel and SPSS. Data analysis was done using some statistical tools like average and per centage analysis as well.

CHAPTER IV

THE STUDY AREA

After reviewing available literature and talking to concerned research and development workers, policy makers and stakeholders two VDCs of Mahottari district were selected for the study. A brief account of study area is presented below.

4.1 Mahottari District

Area and Location

Mahottari district is located in the Tarai part of Central Development Region. It borders with Bihar State of India from one side (south) and districts of Nepal from three sides - Sarlahi district from the west, Dhanusha district from the east and Sindhuli district from the north. It has an elevation of 61 meters to 808 meters. Geographically the district is located between 26°39' and 26°55' north latitude and 85°6' and 85°47' east longitude and covers an area of 1002 sq. km (98745 ha-it is 0.68 per cent of total area of Nepal) (CBS, 1991). The district is divided into 4 electoral constituencies and has 76 VDCs and 1 municipality (Jaleshwar, the headquarters district).

Land distribution and Climate

Total land of the district is comprised of 62944ha cultivated, 6379ha non-cultivated, 1093 ha grazing land, 24457 ha forest (CBS, 1992). Community Forestry programme (CFP) launched in the district, which is about 956 ha out of 24457 ha and 3872ha others (DOF, 1991). Of the total cultivated land 60633 ha is irrigable, 29971 ha is irrigated (DOI, 1997).

The climate of this district varies from tropical to sub-tropical. The average maximum and minimum temperature are 31.6°C and 19.9°C respectively and the average annual rainfall is 1442 ml (MDD Profile of Nepal, 2001).

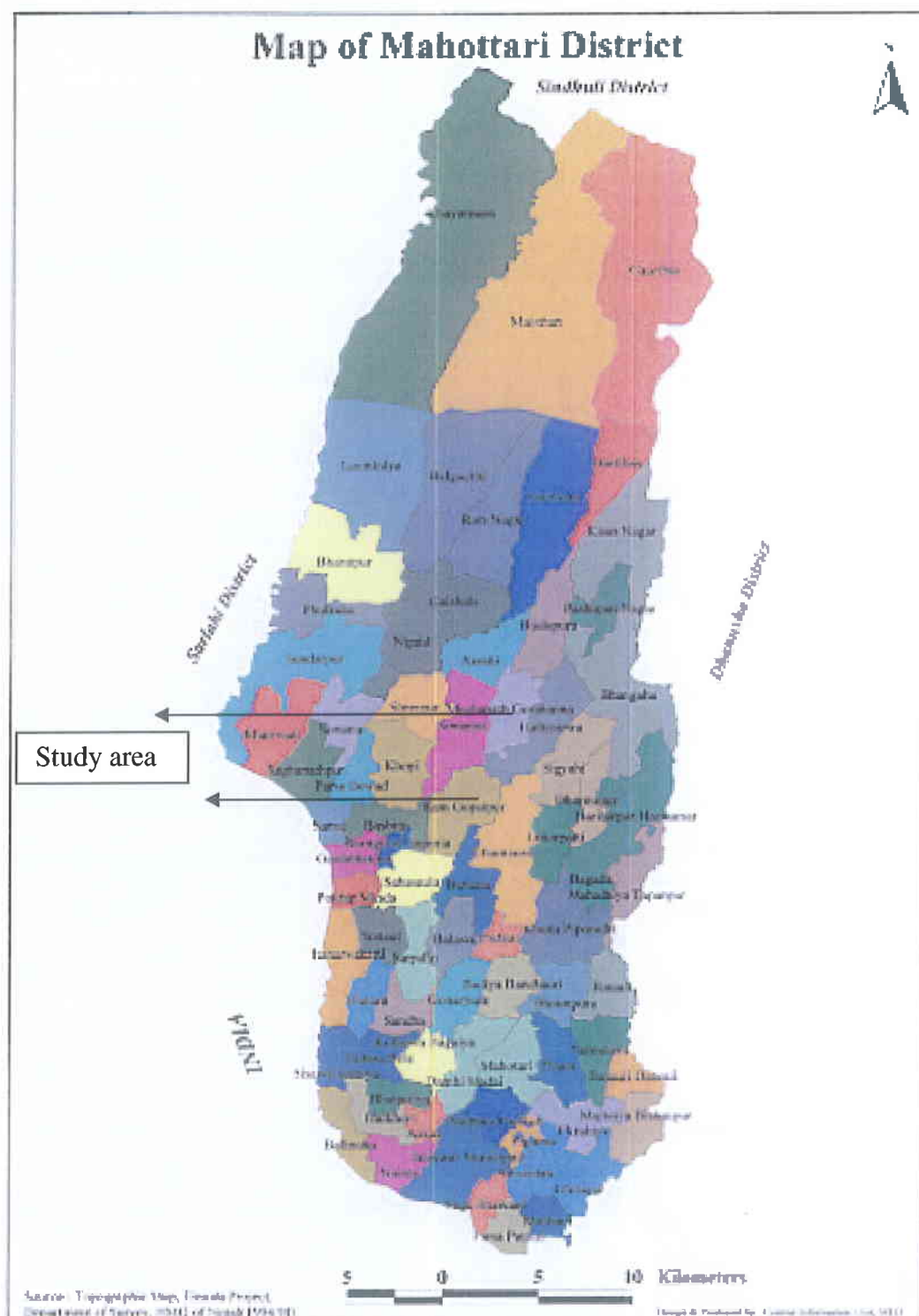


Figure 2. Map of the Study Area

Poverty Situation of the District

Level of poverty is deepening in the district. Due to ritual food deficiency, rapid population growth, increased share of expenditure on unproductive items such as liquor, social custom, marriage (Dowry System), festivals and so on have further aggravated already worsened situation of poverty level in the district. The per capita income of this district is Rs.7498 (World Bank, 2000), which is only 50 per cent in comparison to the per capita income of the country estimated by the World Bank.

About 21 per cent of population in the district is literate. Adult literacy rate is 24.51 per cent and the average schooling year is 1.62 yrs. Life Expectancy of people is 60.5 years in this district (MDDP Profile of Nepal, 2001). With regard to Human Development Index, this district is ranked as 36th among all the 75 districts of Nepal (UNDP, 2001).

Demography

According to the population census of 2001, total population of Mahottari district is 5,53,857. Out of them, there are 2,88,567 males and 2,65,290 females constituting a sex ratio of 1.088. The total number of households is 95,199 with average family size of 5.8 members per household. The population density is 552.7 persons per sq. km compared to 157.7 persons per sq. km for Nepal as a whole. Mahottari ranks fifth highest with respect to population density among other districts of Nepal (CBS, 2001).

Population growth rate in this district for the last decade was 2.3 per cent. About four per cent of the district's population lives in municipality (urban area) and remaining 96 per cent in the rural areas (MDDC information leaflet, 2001).

Altogether 11 linguistic people reside in the district with dominance of Maithali language speaker. Likewise, there are four religious groups -- Hindu, Buddhist, Islam and Jain. Majority (above 90 per cent) of population are Hindu (MDD Profile of Nepal, 2001).

Occupation

Total economically active population in the district is 1,26,802 comprising 109186 males and 17696 females (MDD Profile of Nepal, 2001). Most people are engaged in agriculture, which is usually of subsistent type. At present, there is very limited opportunity to work outside the agriculture and earn in the VDC and people are engaged in agriculture on work sharing basis. Main cereal crops grown in the district are paddy; maize, millet, wheat and barley while the major cash crops are potato, oilseed, sugarcane, tobacco and jute. Normally all the households also raise some livestock - mainly cattle, buffalo, sheep, goat, pig, fowls and duck.

Infrastructure

For the benefit of total population of the district, there are 1 district hospital, 3 primary health centers, 6 health posts, 66 sub-health posts and 1 Ayurvedic hospital in the district. There are 160 primary schools, 36 lower secondary schools, 36 secondary school, 2 higher secondary schools and 2 colleges in this district (MDD Profile of Nepal, 2001).

Limited telephone and postal facilities are available at the district headquarter and in VDCs as well. There are 10 banks including one Rural Development Bank working in the district (MDD Profile of Nepal, 2001).

The district is connected by a major high-way 'Mahendra Rajmarg' of Nepal. Some part of the district including one study VDC - Ramgopalpur is accessible by black topped road while another study VDC - Meghnath Gorhana and most other parts are still connected by muddy road which becomes worse during rainy season.

Of the total population in the district 21 per cent are benefited from drinking water facility comprising 91 per cent in the urban areas and 9 per cent in the rural areas (MDD Profile of Nepal, 2001).

4.2 Selected VDCs for the Study

General Description

Of the total 76 Village Development Committees (VDCs) in the Mahottari District, two VDCs - Meghnath Gorhana and Ramgopalpur were selected for the study. The total number of households in both VDCs together is 2308 (Meghnath Gorhana has 953 and Ramgopalpur has 1632 Households). The average household sizes of the study area are 5.60 and 5.07 respectively and the total population is (5598mg+ 8283ram) 13881. Of the total population of Meghnath VDC, the male and female population is 2911 and 2678 respectively. Ramgopalpur VDC has 4268 male and 4014 female (CBS, 2001).

The main ethnic groups residing in these VDCs are Tharu, Dunuwar, Dhanuk, Yadav, Mushahar, Dom, Khatwe, Kewat, Kalawar, Koiri, Hajam, Musalim, Teli, Barahman and Dusad. Among them, Tharu constitutes the majority in Meghnath Gorhana VDC. Mushahar, Khatwe, Dusad and Dom are usually deprived section of community (VDCs Profile, 2000).

The literacy rate of Meghnath Gorhana is 38 per cent and that of Ramgopalpur is 41 per cent (CBS, 2001).

The main occupation of people in these VDCs is agriculture where more than 95 per cent of population depends directly and directly. The limited market facility for them is available at the distance of about 2-km from each of these two VDCs. Main festivals celebrated in these VDCs are Dashain, Tihar (Dipawali), Holy and Chhath.

Women's Role/ Gender discrimination

Women in study area, as usual in Nepal, generally work as housewife. They are mainly involved in fetching water, collecting fuel wood, cooking food, managing household chore works and working in agricultural land and community forests. Women possess indigenous knowledge on how to manage, conserve and utilize the natural resources and contribute to the ecologically

sustainable development. They play a crucial role in environmental management as farmers, stockbrokers and suppliers of fuel and water (Lohani and K.C., 2001). Like rural areas of Nepal, in these VDCs also, the socio-economic status of female is lower than that of male because of intra-household as well as social discrimination between sexes. Mainly women have discriminated in society in regard to achieving education, to take part in politics and family decision-making (Acharya, 1998).

Child Labor

In Nepal, child labor is common in many sectors. In the study area also, child labor is observed among economically poor and socially deprived section of community. The deteriorating condition of the lower economic class people has forced them to involve in this occupation. They work at a cheaper rate. Mainly boys are involved as a child labor in livestock rearing and rice seed-bed preparation, fodder/grass collection activities while girl child are involved in carrying water, preparing food and cleaning vessels for neighboring well-off people. Some male children are also involved as bonded laborer in the landlord's families in the locality (CDPS, 1996).



Figure 3. Picture showing Bonded Child Labour

CHAPTER V

RESULTS AND DISCUSSIONS

V A. Households Survey

1 Livelihood Asset Position

1.1 Human Resources

Demographic feature of the Study area

There are a total of 85 households in the study area with a total population of 488. Of the total households, 13 households belong to 'rich', 17 households to 'medium' and 55 households to 'poor' categories (Table 2). Households in rich and medium categories together constituted 35.5 per cent while poor category alone constituted 64.7 per cent. The average family size was 5.7 persons per household and a sex ratio of 1.21 (males per one female). Both family size and sex ratio were seen little larger in the medium and rich households compared to poor ones. It may be partly due to richer people having better access to facilities for selective birth. In Nepal, as in many other developing countries, people have strong preference for male child than female child.

Table 2: Total households/population and their distribution

Particulars	Rich	Medium	Poor	Total No.
Total Household (No.)	13	17	55	85
%	(15.5)	(20.0)	(64.7)	(100.0)
Total Population (No.)	80	112	296	488
Male	45	64	158	267
Female	35	48	138	221
Female Headed HH (No.)				
Av. HH Size (No.)	6.2	6.6	5.4	5.7
Sex ratio	1.29	1.33	1.14	1.21

* Figures in parentheses indicate the per centage of total.

Source: Field Survey, February 2002

Distribution of population by sex and age groups presented in Table 3 shows about 60 per cent population belong to 'economically active population' (15-59 years). In aggregate, 10.2 per cent of population are under the age of 5 years, 17.6 per cent in 5-10 years and 6.8 per cent were 60 years and above. This distribution shows that about 40 per cent of the population normally does not contribute economically to the households/society.

Table 3: Distribution of population by sex and age

Particulars	Male		Female		Total	
	No.	%	No.	%	No.	%
Less than 5 years	23	8.6	27	12.2	50	10.2
5-10 years	48	18.0	38	17.2	86	17.6
11-14 years	13	4.9	15	6.8	28	5.7
15-59 years	166	62.2	125	56.6	291	59.6
60 years and above	17	6.4	16	7.2	33	6.8
Total	267	100.0	221	100.0	488	100.0

Source: Field Survey, February 2002

Population of the study area is further distributed under different holding categories and age groups and is presented in Table 4. Table 5 presents the distribution of population among different social classes viz. SC-I, SC-II, SC-III and SC-IV. Caste-wise distribution shows a similar pattern (and proportion) of distribution for male, female and their aggregate in each caste category over different age groups.

Table 4: Distribution of population by age and sex economic class

Economic Class	Sex	<5 yrs	5-10 yrs	11-14 yrs	15-59 yrs	60 yrs & +	Total
Rich	Male	2	8	0	32	3	45
	%	4.4	17.8	0.0	71.1	6.7	100.0
	Female	4	6	2	21	2	35
	%	11.4	17.1	5.7	60.0	5.7	100.0
	Total	6	14	2	53	5	80
Medium	%	7.5	17.5	2.5	66.3	6.3	100.0
	Male	6	11	1	45	1	64
	%	9.4	17.2	1.6	70.3	1.6	100.0
	Female	3	7	4	30	4	48
	%	6.3	14.6	8.3	62.5	8.3	100.0
Poor	Total	9	18	5	75	5	112
	%	8.0	16.1	4.5	67.0	4.5	100.0
	Male	15	29	12	89	13	158
	%	9.5	18.4	7.6	56.3	8.2	100.0
	Female	20	25	9	74	10	138
Total	%	14.5	18.1	6.5	53.6	7.2	100.0
	Total	35	54	21	163	23	296
	%	11.8	18.2	7.1	55.1	7.8	100.0
	Male	23	48	13	166	17	267
	%	8.6	18.0	4.9	62.2	6.4	100.0
Total	Female	27	38	15	125	16	221
	%	12.2	17.2	6.8	56.6	7.2	100.0
	Total	50	86	28	291	33	488
	%	10.2	17.6	5.7	59.6	6.8	100.0

Source: Field Survey, February 2002

Table 5: Distribution of population by age and sex across social classes

Social Class	Sex	< 5 years	5-10 years	11-14 years	15-59 years	60 years & +	Total
SC-I	Male	0	2	1	8	1	12
	%	0.0	16.7	8.3	66.7	8.3	100.0
	Female	0	0	0	3.0	1.0	4
	%	0.0	0.0	0.0	75.0	25.0	100.0
	Total	0	2	1	11	2	16
	%	0.0	12.5	6.3	68.8	12.5	100.0
SC-II	Male	7	16	0	42	4	69
	%	10.1	23.2	0.0	60.9	5.8	100.0
	Female	6	9	4	30	5	54
	%	11.1	16.7	7.4	55.6	9.3	100.0
	Total	13	25	4	72	9	123
	%	10.6	20.3	3.3	58.5	7.3	100.0
SC-III	Male	9	16	4	75	9	113
	%	8.0	14.2	3.5	66.4	8.0	100.0
	Female	10	16	8	62	8	104
	%	9.6	15.4	7.7	59.6	7.7	100.0
	Total	19	32	12	137	17	217
	%	8.8	14.7	5.5	63.1	7.8	100.0
SC-IV	Male	7	14	0	41	3	73
	%	9.6	19.2	0.0	56.2	4.1	100.0
	Female	11	13	3	30	2	59
	%	18.6	22.0	5.1	50.8	3.4	100.0
	Total	18	27	3	71	5	132
	%	13.6	20.5	2.3	53.8	3.8	100.0
Total	Male	23	48	13	166	17	267
	%	8.6	18.0	4.9	62.2	6.4	100.0
	Female	27	38	15	125	16	221
	%	12.2	17.2	6.8	56.6	7.2	100.0
	Total	50	86	28	291	33	488
	%	10.2	17.6	5.7	59.6	6.8	100.0

Source: Field Survey, February 2002

Ethnic Features of the study areas

Majority (66.7%) of socially upper class (SC-I) households/population were rich while majority among SC-II and SC-III and all of Dalits (SC-IV) were poor, who possess marginal economic power (Table 6). There are no Dalits in the rich and medium economic classes.

Table 6: Distribution of households/population across socio-economic classes

Caste Groups	Rich		Medium		Poor		Total	
	HH	Pop ⁿ	HH	Pop ⁿ	HH	Pop ⁿ	HH	Pop ⁿ
SC-I	2	10	0	0	1	6	3	16
%	66.7	62.5	0.0	0.0	33.3	37.5	100.0	100.0
SC-II	3	13	8	51	12	59	23	123
%	13.0	10.6	34.8	41.5	52.2	48.0	100.0	100.0
SC-III	8	57	9	61	18	99	35	217
%	22.9	26.3	25.7	28.1	51.4	45.6	100.0	100.0
SC-IV	0	0	0	0	24	132	24	132
%	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0
Total	13	80	17	112	55	296	85	488
%	15.3	16.4	20.0	23.0	64.7	60.7	100.0	100.0

Note: the per centage figure in this table indicates the per centage of socio-economic class
Source: Field Survey, February 2002

Literacy Status

For the analysis of literacy status, males and females of 6 years of age or above were considered. Literacy status of population in the study area by sex and level of education is presented in Table 7. About 39.4 per cent of population were literate. About half (48.1%) of males and little more than one-

Table 7: Literacy status of population (6 years and above) in the study area

Particulars	Male		Female		Total	
	No.	%	No.	%	No.	%
Illiterate	121	51.9	133	71.5	254	60.6
Literate	112	48.1	53	28.5	165	39.4
Total	233	100.0	186	100.0	419	100.0
Among Literate Population:						
Just Literate	40	35.7	29	54.7	69	41.8
Primary Level	24	21.4	20	37.7	44	26.7
Secondary Level	8	7.1	2	3.8	10	6.1
Above Sec. Level	40	35.7	2	3.8	42	25.5
Total	112	100.0	53	100.0	165	100.0

Source: Field Survey, February 2002

fourth (28.5%) of females were literate. This indicates lower access of women to education. Among the literate population, 41.8 per cent were just literate (able to just read and write); 26.7 per cent were with primary level education; only 6.1 per cent with secondary level education and about 25.5 per cent had above secondary level education. Female had less access to higher education

as compared to males. Only 3.8 per cent of the literate females possessed above secondary level education.

Distribution of literacy figures over different economic categories presented in Table 8 indicates that as one moves from rich economic class towards poor economic class, the proportion of literate population in each class is decreasing. Similar trend is observed for both male and female in different economic classes. In the rich economic class, about 40 per cent of total literate females are with primary level and 60 per cent are just literate, and no female with secondary or above secondary level education in each economic class.

Table 8: Literacy status of population (6 years and above) among economic classes

Economic Class	Sex	Illiterate	Literate	Total (Illit+Lit.)	Out of Literate Population				
					Just Literate	Primary Level	Sec. Level	Above Sec. Level	Total Literate
Rich	Male	5	36	41	11	6	3	16	36
	%	12.2	87.8	100.0	30.6	16.7	8.3	44.4	100.0
	Female	11	20	31	12	8	0	0	20
	%	35.5	64.5	100.0	60.0	40.0	0.0	0.0	100.0
Medium	Total	16	56	72	23	14	3	16	56
	%	22.2	77.8	100.0	41.1	25.0	5.4	28.6	100.0
	Male	23	33	56	10	7	1	15	33
	%	41.1	58.9	100.0	30.3	21.2	3.0	45.5	100.0
Poor	Female	25	18	43	10	6	2	0	18
	%	58.1	41.9	100.0	55.6	33.3	11.1	0.0	100.0
	Total	48	51	99	20	13	3	15	51
	%	48.5	51.5	100.0	39.2	25.5	5.9	29.4	100.0
Total	Male	93	43	136	19	11	4	9	43
	%	68.4	31.6	100.0	44.2	25.6	9.3	20.9	100.0
	Female	97	15	112	7	6	0	2	15
	%	86.6	13.4	100.0	46.7	40.0	0.0	13.3	100.0
	Total	190	58	248	26	17	4	11	58
	%	76.6	23.4	100.0	44.8	29.3	6.9	19.0	100.0
	Male	121	112	233	40	24	8	40	112
	%	51.9	48.1	100.0	35.7	21.4	7.1	35.7	100.0
	Female	133	53	186	29	20	2	2	53
	%	71.5	28.5	100.0	54.7	37.7	3.8	3.8	100.0
	Total	254	165	419	69	44	10	42	165
	%	60.6	39.4	100.0	41.8	26.7	6.1	25.5	100.0

Source: Field Survey, February 2002

Proportion of literate people having access up to above secondary level education in each economic classes increase with the economic class (land holding size). Similarly, the proportion of people under primary level education decreases with holding class. It is evident from the table that access to higher level of education is positively correlated with the size of holding and also the male has more access to education than for females in the study areas.

Table 9: Literacy status of population (of age 6 years and above) among social classes

Social Class	Sex	Illiterate	Literate	Total (Illit+Lit.)	Out of Literate Population				
					Just Literate	Primary Level	Sec. Level	Above Sec. Level	Total Literate
SC-I	Male	1	11	12	3	4	0	4	11
	%	8.3	91.7	100.0	27.3	36.4	0.0	36.4	100
	Female	2	2	4	2	0	0	0	2
	%	50.0	50.0	100.0	100.0	0.0	0.0	0.0	100
	Total	3	13	16	5	4	0	4	13
	%	18.8	81.3	100.0	38.5	30.8	0.0	30.8	100
SC-II	Male	33	26	59	9	7	0	10	26
	%	55.9	44.1	100.0	34.6	26.9	0.0	38.5	100
	Female	33	11	44	5	6	0	0	11
	%	75.0	25.0	100.0	45.5	54.5	0.0	0.0	100
	Total	66	37	103	14	13	0	10	37
	%	64.1	35.9	100.0	37.8	35.1	0.0	27.0	100
SC-III	Male	37	63	100	23	11	7	22	63
	%	37.0	63.0	100.0	36.5	17.5	11.1	34.9	100
	Female	57	36	93	20	14	2	0	36
	%	61.3	38.7	100.0	55.6	38.9	5.6	0.0	100
	Total	94	99	193	43	25	9	22	99
	%	48.7	51.3	100.0	43.4	25.3	9.1	22.2	100
SC-IV	Male	50	12	62	5	2	1	4	12
	%	80.6	19.4	100.0	41.7	16.7	8.3	33.3	100
	Female	41	4	45	2	0	0	2	4
	%	91.1	8.9	100.0	50.0	0.0	0.0	50.0	100
	Total	91	16	107	7	2	1	6	16
	%	85.0	15.0	100.0	43.8	12.5	6.3	37.5	100
Total	Male	121	112	233	40	24	8	40	112
	%	51.9	48.1	100.0	35.7	21.4	7.1	35.7	100.0
	Female	133	53	186	29	20	2	2	53
	%	71.5	28.5	100.0	54.7	37.7	3.8	3.8	100.0
	Total	254	165	419	69	44	10	42	165
	%	60.6	39.4	100.0	41.8	26.7	6.1	25.5	100.0

Source: Field Survey, February 2002

Literacy status across social classes is presented in Table 9. In aggregate, 81.3 per cent of socially upper class (SC-I), 35.9 per cent of SC-II, 51.3 per

cent of SC-III and 39.4 per cent of SC-IV are literate. Almost all (91.7%) of the males and 50.6 per cent of the females in SC-I are literate, while the literacy among the males and females of SC-II is around the average for the whole study area (44% of males and 25.1% of females). Similarly, the literacy among the males and females of SC-III is around 63.0 and 38.7 per cent respectively. In SC-IV, the literacy among the males and females are 19.4 and 8.9 per cent respectively in general.

With regard to level of education among literate population in different social classes, SC-I has better access up to primary level and above secondary level especially to males. While Dalits (SC-IV) have lower access to education particularly to females. This is also supported by notes taken during discussions in the community. It was noted that people in the higher social classes/castes have better access to education as compared to lower ones.

Age of marriage and first delivery

Table 10 shows among economic classes, the average age of getting married of the male and first delivery of female in rich households at 18.5 and 16.6 years respectively. While in both medium and poor classes households, the female got the first delivery at the age of 19.1 and 19.8 years respectively. In these classes, males got married at the age 19.1 and 18.2 years respectively. Among all social classes, the females in Dalits (SC-IV) got married at the age of 15.2 years and became first delivery at the age of 19.0 years. It was a little bit earlier among all castes. It is because of the traditional culture in order to maintain the previous culture of their families.

Table 10: Age at marriage and first delivery among social and economic classes

Soc-classes	Sex	SC-I		SC-II		SC-III		SC-IV		Overall	
Eco-classes		M*	D*	M	D	M	D	M	D	M	D
Rich	Male	21.0		19.7		17.4				18.5	
	Female	18.5	23.0	17.7	23.0	15.8	21.4			16.6	22.0
Medium	Male			19.1		19.1				19.1	
	Female			16.5	19.8	16.7	18.6			16.6	19.1
Poor	Male	20.0		19.3		18.6		17.3		18.2	
	Female	16.0	18.0	17.2	20.2	16.3	20.7	15.2	19.0	16.0	19.8
Overall	Male	20.7		19.3		18.4		17.3		18.4	
	Female	17.7	21.3	17.0	20.4	16.3	20.3	15.2	19.0	16.2	20.0

*M – Age at marriage; D – Age at first delivery

Source: Field Survey, March 2002

School drop out of children

While discussing with people in the study area, two reasons were observed prominent for the school drop out of children, viz. lack of money to support the education and their need for household works (Table11). Among economic classes, majority of the children (53.8%) dropped out the school from poor households, which was due to the lack of money. About 50 per cent children from both medium and rich class households dropped out school due to some household works. Among all social castes, 46.2 per cent households in SC-II dropped out their children from school due to lack of money. In upper class, only 7.7 per cent households dropped out the school due to lack of money.

Table11: School drop out of children among socio-economic classes

Particulars	Lack of Money		HH works	
	No. of HH	%	No. of HH	%
Economic Classes				
Rich	2	15.4	0	0.0
Medium	4	30.8	1	50.0
Poor	7	53.8	1	50.0
Total	13	100.0	2	100.0
Social Classes				
SC-I	1	7.7	0	0.0
SC-II	6	46.2	0	0.0
SC-III	2	15.4	1	50.0
SC-IV	4	30.8	1	50.0
Total	13	100.0	2	100.0

Source: Field Survey, February 2002

It was also found that the children from poor and Dalits households’ have to work as child labor by dropping out from school for their livelihood. According to the economic conditions of households in the study areas, it was difficult to say for the children to continue the study without any financial support.

1.2 Land resources

Total land owned by households in the study area is about 2665 Katha; largest share of which is owned by rich class households, but it is by virtue of their larger number (Table12). Average land-holding size per household is31.4 Katha and it ranges from a lowest of 4.1 Katha in poor class to a richest of

129.9 Katha in rich class. This is 44.3 Katha in medium class. Sizes of average land holdings and per capita land holding would naturally increase as one moves up towards richer holding class. However, a noticeable aspect is the larger gap in average land holdings among these economic classes. Besides, further inequality can be seen by observing the distribution of proportion of land among these classes. Rich category households, which constitute about 15.3 per cent of total households in the study area, have a share of only 63.4 per cent of total land holdings. Medium class (20 % of households) owns 28.3 per cent of total lands and poor class (64.7 % of households) has a share of 8.4 per cent in total lands.

Table 12:Land holding status among different economic classes (Land in Kattha)

Particulars	Rich	Medium	Poor	Aggregate
No. of Households	13	17	55	85
Total Population	80	112	296	488
Total Land (Katha)	1689	753	223	2665
Proportion of HH (%)	15.3	20.0	64.7	100.0
Proportion of total land (%)	63.4	28.3	8.4	100.0
Av.land holding/HH (Katha)	129.9	44.3	4.1	31.4
Per capital land (Katha)	21.1	6.7	0.8	5.5

1 hectare= 30 Kattha

Source: Field Survey, February 2002

Land holding distribution among different social classes shows a declining pattern of average land holding size per household and per capita land holding towards lower caste groups, i.e., declining from SC-I to SC-IV (Table13). Households in SC-I own 57.3 kattha of land on an average; SC-II households own 44.9 kattha, SC-III households own 40.6 kattha and SC-IV household own only 1.6 kattha of land. The gap in average land holding size between SC-I and SC-IV is relatively bigger. Largest proportion (53.4 %) of total land holdings is under the possession of SC-III who constitutes 41.2 per cent of total households in the study area. SC-I with 3.5 per cent share in total households owns 6.5 per cent of total land while SC-II with 27.1 per cent share in total households owns 38.8 per cent of total land and the remaining SC-IV with 28.2 per cent of total households own 1.4 per cent of total land.

Land distribution pattern among these social classes shows that SC-IV households (Dalits) have lower access to land resources, compared to SC-I, II and III.

Table 13:Land holding status among different social classes (in Kattha)

Particulars	SC-I	SC-II	SC-III	SC-IV	Total
No. of Households	3	23	35	24	85
Total Population	16	123	217	132	488
Total Land (kattha)	172	1033	1422	38	2665
Proportion of HH (%)	3.5	27.1	41.2	28.2	100.0
Proportion of total land (%)	6.5	38.8	53.4	1.4	100.0
Av.land holding/HH (kattha)	57.3	44.9	40.6	1.6	31.4
Per capital land (kattha)	10.8	8.4	6.6	0.3	5.5

Source: Field Survey, February 2002

Distribution of land holding across social and economic classes reveals a bigger difference among rich and poor people even within the same social (caste) categories (Table 14). This vast economic difference was observed within all the social categories. Among Brahmin, the average land holding size varies from 83.5 kattha among rich household to 5 kattha among poor household. Similarly among Chhetries, it varies from 226.7 kattha to 1.25 kattha. These differences indicate a great inequality in income/wealth distribution in the study area.

Table 14:Distribution of lands among different social and economic classes (land in kattha)

Economic Class	Average of:	SC-I	SC-II	SC-III	SC-IV	Total
Rich	All households	83.5	226.7	105.3	0	129.9
	Land owning HH	83.5	226.7	105.3	0	129.9
	Landless	0	0	0	0	0
Medium	All households	0	42.3	46.1	0	44.3
	Land owning HH	0	42.3	46.1	0	44.3
	Landless	0	0	0	0	0
Poor	All households	5	1.25	9.2	1.6	4.1
	Land owning HH	5	3.75	10.3	4.2	7.4
	Landless	0	8	2	15	25
Total	All households	57.3	44.9	40.6	1.6	31.4
	Land owning HH	57.3	68.9	43.1	4.2	44.4
	Landless	0	0	0	0	0

Source: Field Survey, February 2002

Analysis for the tenurial status revealed that about 48.3 per cent of total households were exclusive owner of their land and had neither rented out nor rented in any land. They owned about 60.8 per cent of land.

Table 15: Distribution of households by tenure type

Economic Classes	Exclusive Owner	Exclusive Tenant	Owner + Rented in	Owner + Rented out	Total
Rich (No. of HH)	8	3	2	0	13
%	61.5	23.1	15.4	0.0	100.0
Medium (No. of HH)	6	1	9	1	17
%	35.3	5.9	52.9	5.9	100.0
Poor (No. of HH)	15	10	5	0	30
%	50.0	33.3	16.7	0.0	100.0
Total HH	29	14	16	1	60
%	48.3	23.3	26.7	1.7	100.0
Total Area (kattha)	1621	393	601	50	2665
%	60.8	14.7	22.6	1.9	100.0
Land/ HH	55.9	28.1	37.6	50.0	44.4

Source: Field Survey, February 2002

About 26.7 per cent of households owned about 22.6 per cent of land, a part of which they owned and a part was rented in. The third type was a exclusive tenant (23.3%) who owned about 14.7 per cent of land. Owner cum rented out type of tenure was observed in very few cases (1.7% household that covered only 1.9% of land) (Table 15). Distribution of households across economic class indicates that among two classes, viz. rich and poor, majority are exclusive owner followed by exclusive tenant, owner cum rented in and finally owner cum rented out. However, in the case of medium economic class, majority (52.9%) is owner cum rented in followed by exclusive owner and exclusive tenant.

1.3 Livestock Resources

Livestock holding is one of the important assets influencing the livelihood system of rural people in Nepal. Most of the households in the study areas are seen raising some kinds of livestock and poultry. Of the total 85 households, 65 possess livestock and poultry - mostly cattle followed by goat/ sheep, poultry and buffalo (Table 16). The average number of livestock per household is about 5.5 and it ranges from 6.2 in rich class to 6.7 in medium and 4.8 in

the poor class. Average number of livestock raised is higher in medium class, may be they have better access to/closeness of pasture and forest resources.

Table 16:Situation of livestock holding in the study area among different economic classes

Livestock	Rich			Medium			Poor			Total		
	HH	No.	%	HH	No.	%	HH	No.	%	HH	No.	%
Cattle	12	38	47.5	14	37	34.6	20	34	19.8	46	109	30.4
Buffalo	9	12	15.0	5	6	5.6	10	12	7.0	24	30	8.4
Goat/ Sheep	6	18	22.5	9	24	22.4	24	46	26.7	39	88	24.5
Poultry	4	12	15.0	7	40	37.4	18	80	46.5	29	132	36.8
Total	13	80	100.0	16	107	100.0	36	172	100.0	65	359	100.0
Av. No./ HH (Raising)	6.2			6.7			4.8			5.5		
Av. No./ HH (All)	6.2			6.3			3.1			4.2		

Source: Field Survey, February 2002

Distribution of livestock holding across different social classes shows that SC-III households raise larger number of animals than other groups. On an average SC-I households have 3.0 number of animals, SC-II have 6.4, SC-III have 6.5 and SC-IV possesses 3.3 animals (Table17). Of the total livestock reared, cattle constitutes the largest proportion in each social class -- 66.7 per cent among households in SC-I, 38.5 per cent among SC-II, 23.9 per cent among SC-III and 30.2 per cent among SC-IV.

Compared to the situation of nearby other districts, households in this study area own lower number of domestic animals. This is because they do not have enough private land and access to common property resource to support livestock's rearing. In addition, the poor have limited ability to make an investment in animals. Communities consider animals to be important means of wealth for the bad times. The wealth/saving in the form of animals are used during emergencies like illness, crop loss or failure to find wages work. Small animals such as goats, sheep and poultry are considered by the poor as means to make money for their livelihood.

Table 17:situation of livestock holding in the study area among different social classes

Livestock	SC-I			SC-II			SC-III			SC-IV			Total		
	HH	No.	%	HH	No.	%	HH	No.	%	HH	No.	%	HH	No.	%
Cattle	3	6	66.7	13	42	38.5	22	45	23.9	8	16	30.2	46	109	30.4
Buffalo	2	2	22.2	8	10	9.2	11	14	7.4	3	4	7.5	24	30	8.4
Goat/ Sheep	1	1	11.1	7	14	12.8	20	58	30.9	11	15	28.3	39	88	24.5
Poultry	0	0	0.0	5	43	39.4	18	71	37.8	6	18	34.0	29	132	36.8
Total	3	9	100.0	17	109	100.0	29	188	100.0	16	53	100.0	65	359	100.0
Av. No./ HH (raising)	3			6.4			6.5			3.3			5.5		
Av. No/ HH (all)	3			4.7			5.4			2.2			4.2		

Source: Field Survey, February 2002

1.4 Other household resources

Most common agricultural tools in the study area were spade and plough and, there was no any improved agricultural machinery for the farming. Some

Table 18:Ownership of agricultural and household assets and their present values (NRs.) among economic classes

Economic Classes	Particulars	Thresher	Bullock Cart	Plough	Spade	TV	Radio	Cycle	Others	Av.value /HH
Rich	No. of HH	2	2	13	11	4	9	7	0	2436
	No. of items	2	2	19	22	4	14	8	0	
	Av. value	25500	12000	629	168	13500	843	2063	0	
Medium	No. of HH	0	4	16	16	4	10	13	0	2833
	No. of items	0	4	17	17	4	11	15	0	
	Av. value	0	31750	541	136	4050	1375	1520	0	
Poor	No. of HH	0	0	5	39	0	10	9	1	408
	No. of items	0	0	5	44	0	10	9	1	
	Av. value	0	0	540	138	0	765	1278	250	
Total	No. of HH	2	6	34	66	8	29	29	1	1893
	No. of items	2	6	41	183	8	35	32	1	
	Av. value	25500	25167	582	145	8775	988	1588	250	

Source: Field Survey, February 2002

households also owned thresher and bullock cart (Table18). Besides, very common household assets like axe, sickle etc. were available in almost all the households. A few households also owned television, radio and bicycle. On an average each household owned assets of worth NRs.1893, which varied from highest of NRs 2833 in medium economic class to NRs. 2436 in the households in rich class and NRs. 408 in the poor class households.

The households towards richer class categories had assets 6-7 times (with respect to monetary value) greater than those in poor class. Television is a source of information and means of entertainment, and it is given regard only after food requirement of people is fulfilled. Very few people from rich and medium classes and none from the poor class were able to afford purchasing a television. Further the households in rich class owned more valuable television compared to those owned by medium class households.

1.5 Financial Resources

Of the many sources of finances like capital stock flow, liquidity etc. only the borrowing was seen as the important source of availing credits when needed. Of the total 85 households, 57 households borrowed an average amount of NRs. 7746 from some sources (Table 19). The most important source of finance was the local moneylenders where majority (39 HH) of borrowing households approached. Besides, few also resorted to relatives, cooperatives, banks and other sources.

Table 19:Status of Loan in study areas (NRs)

Sources of Loan		Food/Medical/HH expenditure	Cultural Obligations	House Construction	Agriculture	Business	Total
Local Lender	No. of HH	24	5	2	6	2	39
	Av.Amt	4792	4000	2750	6167	5000	4808
Relative	No. of HH	3	2	0	1	0	6
	Av.Amt	3000	10000	0	500	0	4917
Cooperatives	No. of HH	1	0	0	0	2	3
	Av.Amt	20000	0	0	0	15250	16833
Bank	No. of HH	0	0	2	5	0	7
	Av.Amt	0	0	12000	26000	0	22000
Others	No. of HH	0	0	0	2	0	2
	Av.Amt	0	0	0	10000	0	10000
Total	No. of HH	28	7	4	14	4	57
	Av.Amt	5143	5714	7375	13393	10125	7746

Source: Field Survey, March 2002

Usually people borrowed money to meet their food/medical/household expenditures (about 50%). The second important purpose was to do agricultural activities (about 25%). Among other purposes were to meet the expenditure of cultural obligations like marriage, paying worship and other local rituals, house construction and doing businesses. The average amount

borrowed varied from source to source. On an average, the largest amount came from banks while the lowest from local moneylenders. It seems here that local moneylender is easily accessible to large population but they provide small credits, on the other hand banks are accessible to very few people but they provide even large credits. Local moneylenders being the local people, knows their neighbors and village mates well and, provide credits against some property documents or valuable physical properties or sometime even without any collateral as they usually hold social and economic power in the rural areas and can obtain their outstanding money even by force, if needed. Thus, this source of finance is easily accessible to all. In case of emergencies, like general household expenditure/medical expenditure, cultural obligations etc, this is the only secured source available to people because banks being formal financial institutions usually do not provide loans for such purposes.

Table 20: Status of Loan among different economic classes

Sources of Loan	Rich		Medium		Poor		Total		Interest Rate (%) charged by the source
	No. of HH	Av.Amt	No. of HH	Av.Amt	No. of HH	Av.Amt	No. of HH	Av.Amt	
Local Lender	1	2000	8	8125	30	4017	39	4808	66
% of HH	33.3		66.7		71.4		68.4		
Relative	0	0	0	0	6	4917	6	4917	48
% of HH	0		0		14.3		10.5		
Cooperative	1	10000	0	0	2	20250	3	16833	18
% of HH	33.3		0		4.8		5.3		
Bank	1	25000	3	28333	3	14667	7	22000	18
% of HH	33.3		25		7.1		12.3		
Others	0	0	1	10000	1	10000	2	10000	18
% of HH	0		8.3		2.4		3.5		
Total	3	12333	12	13333	42	5821	57	7746	54
% of HH	100		100		100		100		

Source: Field Survey, March 2002

Though local moneylenders are of great help to people – easily accessible and serves even in emergencies, they charge exorbitantly high interest rate (66%) against 18 per cent generally charged by banks (Table 20). From Table 20 also makes it evident that poor people had better access to local moneylenders and less access to formal institutions like banks where they could get loans against low interest rate. The situation was other way for richer people. Among those who borrowed loans, about 71.4 per cent of poor borrowed from

local moneylenders and only about 7.1 per cent from banks. Their levels of access to these two sources differ by about 10 times, while there was no such difference observed for richer households.

Distribution of loans taken across the social classes is presented in Table 21. Local moneylender was seen important source of credit among all the social classes except in SC-I where only one household had borrowed loan and that was from relative. About 60-80 per cent of borrowing household from among different social classes borrowed loan from local moneylenders.

Table 21: Status of Loan among different social classes (Amount in NRs)

Sources of Loan	SC-I		SC-II		SC-III		SC-IV		Total	
	No. of HH	Av.Amt	No. of HH	Av.Amt	No. of HH	Av.Amt	No. of HH	Av.Amt	No. of HH	Av.Amt
Local Lender	0	0	11	5591	14	5679	14	3321	39	4808
% of HH	0		78.6		60.9		73.7		68.4	
Relative	1	500	1	7000	2	1500	2	9500	6	4917
% of HH	100		7.1		8.7		10.5		10.5	
Cooperative	0	0	1	20000	1	10000	1	20500	3	16833
% of HH	0		7.1		4.3		5.3		5.3	
Bank	0	0	0	0	5	26000	2	12000	7	22000
% of HH	0		0.0		21.7		10.5		12.3	
Others	0	0	1	10000	1	10000	0	0	2	10000
% of HH	0		7.1		4.3		0.0		3.5	
Total	1	500	14	7036	23	10109	19	5789	57	7746
% of HH	100		100.0		100.0		100.0		100.0	

Source: Field Survey, March 2002

Distribution of the loans borrowed for different purposes across different economic and social classes is presented in Table 22. Among economic classes, poor were seen borrowing usually (59.5%) for general/food/medical expenditure and to meet cultural obligations (16.7%). While majority of medium and rich households borrowed mainly for agriculture purpose. The average amount borrowed among poor was about half than those in rich and medium households.

Among the different social classes also largest number of households borrowed for the purpose of general/medical/food expenditure. Overall, about half (49.1) percent of households borrowed loans to meet general/medical/food expenditure, about a quarter (24.6%) for the purpose of

doing agriculture, 12.3 per cent to meet cultural obligations and rest for the purpose of house construction and doing businesses.

Table 22: Purposes of Loan among economic and social categories (Amount in NRs.)

Purpose ▶	Food/Medical/ General		Cultural Obligations		House Construction		Agriculture		Business		Total	
Classes ▼	No. of HH	Av. Amt.	No. of HH	Av. Amt.	No. of HH	Av. Amt.	No. of HH	Av. Amt.	No. of HH	Av. Amt.	No. of HH	Av. Amt.
Economic Class												
Rich	0	0	0	0	0	0	2	13500	1	10000	3	12333
% of HH	0.0		0.0		0.0		66.7		33.3		100.0	
Medium	3	10000	0	0	0	0	8	15625	1	5000	12	13333
% of HH	25.0		0.0		0.0		66.7		8.3		100.0	
Poor	25	4560	7	5714	4	7375	4	8875	2	12750	42	5821
% of HH	59.5		16.7		9.5		9.5		4.8		100.0	
Social Classes												
SC-I	0	0	0	0	0	0	1	500	0	0	1	500
% of HH	0.0		0.0		0.0		100.0		0.0		100.0	
SC-II	8	6938	2	6500	0	0	4	7500	0	0	14	7036
% of HH	57.1		14.3		0.0		28.6		0.0		100.0	
SC-III	12	5042	0	0	0	0	9	17444	2	7500	23	10109
% of HH	52.2		0.0		0.0		39.1		8.7		100.0	
SC-IV	8	3500	5	5400	4	7375	0	0	2	12750	19	5789
% of HH	42.1		26.3		21.1		0.0		10.5		100.0	
Overall	28	5143	7	5714	4	7375	14	13393	4	10125	57	7746
% of HH	49.1		12.3		7.0		24.6		7.0		100.0	

Source: Field Survey, March 2002

2 Institutional Resources

2.1 Listing of Local Level Institutions

A number of formal organizations are operating in the study areas. These organizations are:

- Charpate Yuba Club (Youth Club): almost non-functional (Meghnath Gorhana VDC)
- Small Farmers Development Bank (Ram Gopal Pur –VDC) NGOs
 - ASMA Nepal (Meghnath Gorhana)
 - Neighborhood Society Service Center (Ram Gopalpur)
- Police Post-1 (Ram Gopalpur)
- Health Post-1 (Ram Gopalpur)
- Post Office-1 (Ram Gopalpur)
- Public Telephone-1 (Ram Gopalpur)

- Schools:
 - Boarding School-1 (Nursery level)-(Ram Gopalpur)
 - Government Schools- Meghnath Gorahana and Ram Gopalpur VDCs

Apart from the above list of institutions, a number of schools are located in the study area as shown in Table 23. In the study area, there is one secondary school, one lower secondary school and five primary schools in Wards 1,2,6,7and8. Lower secondary school is situated in Meghnath Gorhana VDC whereas all schools are located in Ram Gopalpur VDC.

Table 23: Details of Government Schools in Study VDCs

Ward No.	No. of Schools			No. of teachers
	Secondary	Lower sec.	Primary	
1		-	1	2
2		1	1	7
6	1		1	18
7	-	-	1	2
8			1	2
Total	1	1	5	31

Source: Field Survey, March 2002

2.2 Access to Local Institutions

Table 24 presents households’ access to formal and informal organizations in the study areas. Participation of households in institutions indicates their power, prestige and access to institutions as well as in society. Sex-wise institutional involvement pattern of people indicated that normally males represented political institutions like VDC / Ward, health and irrigation user groups, youth clubs, religious organizations both as an ordinary and executive members while females represented community groups, different user groups and few in political institution like VDC (in VDC, female’s participation has been made mandatory and quota is reserved for them).

Males are often forward in this society, as in the case of most rural parts of Nepal, in many respects. In total about 21.2 per cent households were involved in some kind of institutions as ordinary or executive members. Access to such institutions was observed higher among richer households.

Among rich households, 46.2 per cent were involved in some kind of institutions, while only 17.7 per cent of medium households and 16.4 per cent of poor households were involved. Further, majority of people from rich class was involved as executive members while from medium and poor majority were as ordinary member. Observations for the gender shows here that among total involvement, female were only 16.7 per cent. In the rich category, all the males were executive members while all the females involved were the ordinary members. Among poor also, only 11 per cent were female.

Table 24:Access of households to Local Institutions and User Groups across economic classes

Economic Classes	Ordinary		Executive		Total		Total HHs (participating)	Total sample HHs
Sex	F	M	F	M	F	M	M/F	
Rich HH	2	0	0	4	2	4	6	13
%	33.3	0.0	0.0	66.7	33.3	66.7	46.2	100.0
Medium HH	0	3	0	0	0	3	3	17
%	0.0	100.0	0.0	0.0	0.0	100.0	17.7	100.0
Poor HH	1	6	0	2	1	8	9	55
%	11.1	66.7	0.0	22.2	11.1	88.9	16.4	100.0
Total HH	3	9	0	6	3	15	18	85
%	16.7	50.0	0.0	33.3	16.7	83.3	21.2	100.0

Source: Field Survey, March 2002

Observation of their access according to their social classes is presented in Table 25. People from upper class households were not seen involved in local institutions and user groups. Usually they are elite people and mostly hold executive positions in the local institutions, but surprisingly their involvement was nil in this study. About 26.1 per cent of people from SC-II were involved in some institutions, and this figure was observed declining towards lower social classes (towards SC-II, III, IV). These figures also support that usually socially upper class people too have better access to institutions and institutional benefits. Further, socially elite people usually occupy executive positions. Among those who participated, half of the SC-II held executive positions while all of the SC-IV held ordinary membership.

In context of Nepal, the leadership in local institutions and user groups rests on people based largely on their social and economic status. Further, Nepal

being a patriarchal country, males usually dominate female not only in leadership and institutional involvement but also almost in all aspects of life. Participation of men is usually higher than women in terms of politics, government job and user groups like saving and credit groups, drinking water and irrigation committee.

Table 25:Access of households to Local Institutions and User Groups among social classes in the VDCs

Social Classes	Ordinary		Executive		Total		Total involved	Total HHs
	F	M	F	M	F	M		
SC-I HH	0	0	0	0	0	0	0	3
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
SC-II HH	1	2	0	3	1	5	6	23
%	16.7	33.3	0.0	50.0	16.7	83.3	26.1	100.0
SC-III HH	2	3	0	3	2	6	8	35
%	25.0	37.5	0.0	37.5	25.0	75.0	22.9	100.0
SC-IV HH	0	4	0	0	0	4	4	24
%	0.0	100.0	0.0	0.0	0.0	100.0	16.7	100.0
Total	3	9	0	6	3	15	18	85
%	16.7	50.0	0.0	33.3	16.7	83.3	21.2	100.0

Source: Field Survey, March 2002

3 Livelihood Outcomes

Production arising out of conversion of livelihood assets by adopting different livelihood strategies and the resulting income and household food security situation are termed as livelihood outcomes. In this section, an attempt is made to assess the situation of livelihood outcomes in terms of household income and food security.

3.1 Household income

The average cash income of the households under different economic classes by sources of livelihood is presented in Table 26.Income sources of the households in the study areas comprised of mainly agriculture, labor, trade occupation, job, business and pension and others. On average annual cash income for a household is estimated at NRs.29635 which varied from as high as NRs. 60,154 for richer households to NRs. 37,235 in medium households to as low as NRs. 20,073 in poor households.

Overall, the income composition showed that the largest share (34.7 %) was contributed by labor wages. Almost similar proportion of income (33.8%) came from agriculture, followed by job (17.9 %), business (5.2%), traditional

occupations (4.1%) and pension and others (3.1%). Among rich class the major sources of income came from agriculture and jobs while among medium and poor classes the major sources were agriculture and labour wages. It is evident here that richer people do not earn from labour wages, and medium and poor class people do not have better access to jobs/services (Table 26).

Table 26: Income Status (Average Annual Income) Across Economic Classes

Particulars	Rich		Medium		Poor		Total	
	Av.Amt.	%	Av.Amt.	%	Av.Amt.	%	Av.Amt.	%
Agriculture	30000	49.9	17000	45.7	3136	15.6	10018	33.8
Labor	4769	7.9	11059	29.7	11355	56.6	10288	34.7
Trade Occupation	0	0.0	0	0.0	1891	9.4	1224	4.1
Job	22692	37.7	3529	9.5	1745	8.7	5306	17.9
Business	2692	4.5	3882	10.4	527	2.6	1529	5.2
Pension and others	0	0.0	294	0.8	1309	6.5	906	3.1
Overall average	60154	100.0	37235	100.0	20073	100.0	29635	100.0
No. of income sources	1.5		1.7		1.5		1.6	

Source: Field Survey, March 2002

Table 27: Income Status (Average Annual Income) Across Social Classes (NRs.)

Particulars	SC-I		SC-II		SC-III		SC-IV		Total	
	Av. Amt	%	Av. Amt	%	Av. Amt.	%	Av. Amt.	%	Av. Amt.	%
Agriculture	11333	22.1	1441	52.2	12686	36.4	1750	8.3	10018	33.8
Labor	0	0.0	8826	31.9	9814	28.1	13667	64.4	10288	34.7
Trade Occupation	0	0.0	0	0.0	1029	3.0	2833	13.4	1224	4.1
Job	40000	77.9	0	0.0	8714	25.0	1083	5.1	5306	17.9
Business	0	0.0	2913	10.5	1371	3.9	625	2.9	1529	5.2
Pension & others	0	0.0	1435	5.2	400	1.1	1250	5.9	906	3.1
Total	51333	100.0	27630	100.0	34871	100.0	21208	100.0	29635	100.0
No. of income sources	1.33		1.65		1.51		1.58		1.56	

Source: Field Survey, March 2002

Further, the distribution of source-wise income across social classes shows that the average annual income of socially upper class households were usually larger, except SC-III where the average income was little higher than that from SC-II (Table 27). Among SC-I, total income came from agriculture and jobs/services – it makes evident that socially upper class people normally belonged to economically richer class. Similarly, the major part of income among SC-II and SC-III came from agriculture and labor while that among

SC-IV it was labor and traditional occupation. SC-IV class covers Dalits and shows that they did not have access to other better income sources.

Table 28 shows the distribution of number of source of income among different socio-economic classes. Out of 1.54 no. of sources in rich economic class, rich households of upper class (SC-I) populations were involved in less number of activities (1.5) than SC-III (1.75) and earning more annually. Richer class has good sources of earning like agriculture and Job whereas SC-II are involved in less number of activities (1.0) and earning less income. Similarly, among medium class people there was more involvement of SC-II castes in number of source (2) than SC-III in (1.44) for their annual earning. Among social classes, SC-IV (Dalits) are involved in many activities for their income source (1.58) except SC-II and earning least amount (NRs.21208) annually. Whereas SC-I (upper class) are involved in less number of sources (1.33) and earning more amount (513333). Similarly, SC-II and SC-III are involved in number of sources (1.66) and (1.51) respectively and earning NRs. 27650 and 34871 annually respectively. Despite the involvement of richer and upper class population in less number of sources for earning, they have good sources of earning like farming, government job and business whereas others have to depend on many activities for earning like agriculture and labor wages.

Table 28: Average Annual Income (NRs*) and Number of Income Sources Among socio-economic Classes

		SC-I	SC-II	SC-III	SC-IV	Total
Rich	Income (NRs.)	66000	50000	62500	0	60154
	No. of Sources	1.5	1.0	1.75	0.0	1.54
Medium	Income (NRs.)	0	36000	38333	0	37235
	No. of Sources	0	2	1.44	0.0	1.71
Poor	Income (NRs.)	22000	16458	20861	21208	20073
	No. of Sources	1	1.58	1.44	1.58	1.53
Total	Income (NRs.)	51333	27630	34871	21208	29635
	No. of Sources	1.33	1.66	1.51	1.58	1.56

*US\$ 1 = NRs. \approx 78.0

Source: Field Survey, March 2002

3.2 Households expenditure

The annual expenditure of rich households was found to be more NRs. 52162 compared to medium NRs. 38456 and poor NRs.32128 economic classes. Among them, poor class households spent least amount annually (Table 29). Out of all social classes, SC-III (Tharus) spent more average amount (NRs. 44693) annually. After that upper castes (SC-I) spent second large amount (NRs. 42267) whereas SC-II and SC-IV (Dalits) spent annual average amount NRs. 29663 and NRs. 30233 respectively.

In the study areas rich households spent large amount due to more annual earning who are especially involved in government job and some were in business for their earning. Poor households spent fewer amounts annually due to low labor wages, unemployment and landlessness. In study areas, the annual expenditure of SC-III (Tharus) was seen large due to land ownership and business, where as Dalits (SC-IV) were deprived of land ownership and government job.

Table29: Annual average expenditure details among different socio-economic classes (NRs.)

	SC-I	SC-II	SC-III	SC-IV	Total
Rich	38850	31567	63213	0	52162
Medium	0	32319	43911	0	38456
Poor	49100	27417	36853	30233	32128
Total	42267	29663	44693	30233	36458

Source: Field Survey, March 2002

Table 30 shows that the average total expenditure of the upper class households (SC-I) is NRs. 42267. Out of this, they spent larger amount of their expenditure (47.4 per cent) in food, about 19.1 per cent in education, 15 per cent in clothing, 6.7 per cent in health and less amounts in other items. This table shows SC-II households spent less average amount (29663) than other castes/ ethnic groups. These castes also spent largest amount of their expenditure (71.6 %) in food and very less amount (1.9 %) in liquor/smoke and others. SC-III (Tharus) spent largest annual average amount NRs. 44693 among all social classes. Of the total expenditure, hey also spent large amount (59.7 per cent) in food and second large amount (13.0 %) in education. SC-IV (Dalits) spent large amount 76.3 per cent of total

expenditure NRs. 30233 in food, 1.8 per cent in education, 4.2 per cent in health and 6.7 per cent in cloths.

Among social classes, Dalits spent more amounts in food due to large family size. Whereas SC-I spent fewer amounts in food in comparison to other social classes due to small family size. But the quality of food was better in upper class households than all social classes. The main reasons behind Dalits castes to expend more amounts than other castes may be rapid population growth in their families. Dalits castes have to work daily for their survival. In study areas, among all social classes, upper class people spent largest amount 19.1 per cent in education whereas Dalits only spent 1.8 per cent of total expenditure. Therefore, Dalits are deprived of education, health care facility, good quality food and clothing.

Table 30: Annual average expenditure details among social classes in different items (NRs.)

Social Classes	Food	Clothing	Health	Education	Festivals	Religion	Hospitality	Liquor/Smoke and others	Sum of Av. Exp.	Total Av.Exp.
SC-I	19000	6000	2667	7667	1167	433	1000	2167	40101	42267
%	47.4	15.0	6.7	19.1	2.9	1.1	2.5	5.4	100.0	
SC-II	20870	2448	1496	1109	1252	600	822	550	29147	29663
%	71.6	8.4	5.1	3.8	4.3	2.1	2.8	1.9	100.0	
SC-III	26029	3857	2620	5691	2126	953	1194	1140	43610	44693
%	59.7	8.8	6.0	13.0	4.9	2.2	2.7	2.6	100.0	
SC-IV	22125	1942	1231	513	925	319	660	1281	28996	30233
%	76.3	6.7	4.2	1.8	3.2	1.1	2.3	4.4	100.0	
Total	23282	3011	1925	3059	1516	660	936	1056	35445	36458
%	65.7	8.5	5.4	8.6	4.3	1.9	2.6	3.0	100.0	

Source: Field Survey, March 2002

Table 31 shows the annual expenditure of rich households was NRs. 52162. Out of this amount, they spent maximum amount 56.0 per cent (28692) in food and second large amount 17.7 per cent (9077) in education and 4962 (9.7%) in clothing and minimum amounts in health, festivals, religion, health care and liquor/smoke and others. Similarly, medium class households spent annual average amount NRs. 38456. Of the total expenditure, they spent large amount NRs. 22353 (59.2 %) in food and only few amounts in different items. Poor class households spent maximum amount NRs. 22291 (71.9%) of the

total average expenditure in food. They spent fewer amounts in education than clothing and health of total expenditure.

The rich class households were earning enough for food, education, cloths and health care. They spent second largest amount 17.7 per cent of their total annual expenditure in education. They send their children in good schools for good education. In comparison to rich households, medium class households do not have better earning for food, clothing and health care. They have to spend more amounts for their livelihood due to large family size. Whereas poor class households are deprived of nutritional food, education and health care. They have to do labor work daily for their survival.

Table 31: Expenditure details among economic classes in different items (NRs.)

Economic Classes	Food	Clothing	Health	Education	Festivals	Religion	Hospitality	Liquor/Smoke and others	Sum of Av. Exp.	Av. Total Exp.
Rich	28692	4962	2423	9077	2654	1069	1423	969	51269	52162
%	56.0	9.7	4.7	17.7	5.2	2.1	2.8	1.9	100.0	
Medium	22353	3753	2559	4012	2235	965	1135	774	37786	38456
%	59.2	9.9	6.8	10.6	5.9	2.6	3.0	2.0	100.0	
Poor	22291	2320	1612	1342	1025	469	759	1165	30983	32128
%	71.9	7.5	5.2	4.3	3.3	1.5	2.4	3.8	100.0	
Total	23282	3011	1925	3059	1516	660	936	1056	35445	36458
%	65.7	8.5	5.4	8.6	4.3	1.9	2.6	3.0	100.0	

Source: Field Survey, March 2002

3.3 Food security

Achievement of food security is normally the ultimate target of livelihood diversification. Level of food security in the study areas is seen to be positively related to land holding sizes. About 11.8 per cent of the total households (85) in the study areas had enough production of their own to meet their annual household food requirements (Table32). Among all social classes, most of the households (28.2%) had the food security from 6-<9 months. There were 15.3 per cent households in the study areas, which had less than 3 months food security. About 66.7 per cent of upper class households (SC-I) had food for 12 or more months. Whereas about 33.3 per cent of Dalits class households (SC-IV) had food for 6-< 9 months and about 29.2 per cent of Dalits had food security for less than 3 months -<6 months. The large number of households

(30.4 %) in SC-II had food security for 6-<9 months. About 28.6 per cent of Tharus (SC-III) households had food security for 9-<12months. Therefore, maximum households in the study areas had food security for 6-<9 months.

Upper class households in the study areas had availability of food in the whole year for the families either from their own land or business or from government employment. The food security of Dalits (lower caste) households depended upon the daily labor work in the communities. They always suffer from food scarcity for the whole year due to low labor wage and unemployment. In comparison to Dalits, SC-II and SC-III had more months food security because of their own agricultural farming, business and some had government employment. However, most of the households in the study areas had food security for 3 to 9 months only.

Table 32: Food Security among different social classes

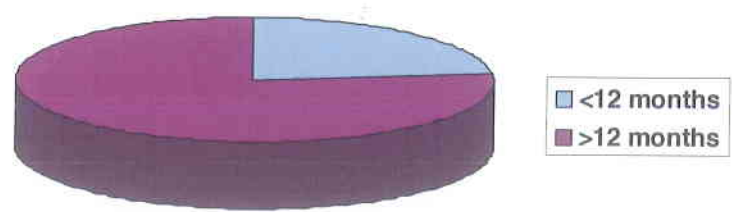
Food Security Level	SC-I		SC-II		SC-III		SC-IV		Total	
	No. HH	o/%	No. HH	o/%	No. HH	o/%	No. HH	o/%	No. HH	o/%
< 3 months	1	33.3	4	17.4	1	2.9	7	29.2	13	15.3
3-< 6months	0	0.0	3	13.0	10	28.6	7	29.2	20	23.5
6-<9months	0	0.0	7	30.4	9	25.7	8	33.3	24	28.2
9-<12months	0	0.0	6	26.1	10	28.6	2	8.3	18	21.2
12& 12 + months	2	66.7	3	13.0	5	14.3	0	0.0	10	11.8
Total	3	100.0	23	100.0	35	100.0	24	100.0	85	100.0

Source: Field Survey, March 2002

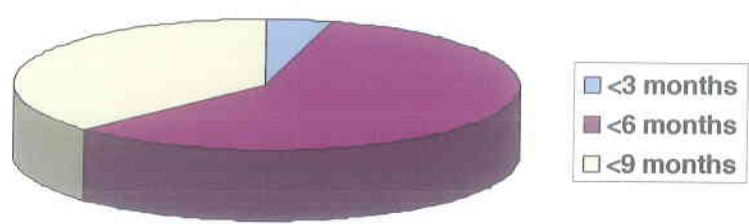
The detail of food security among different economic classes has been shown in Table 33. The Figure 4 shows the majority of rich class households (76.9 per cent) had food security for 12 or more than 12 months in the study areas. About 47.5 per cent of medium class households had food security only for 6-<12 months. In poor class households, the maximum households (34.5per cent) had food security for 3-<6 months whereas about 23.6 households had food enough for less than 3 months.

It is discussed that most of the families living in the study areas have less than six months of food sufficiency from their earning. However, there are

Food security among Rich Class



Food Security among Medium Class



Food Security among Poor Class

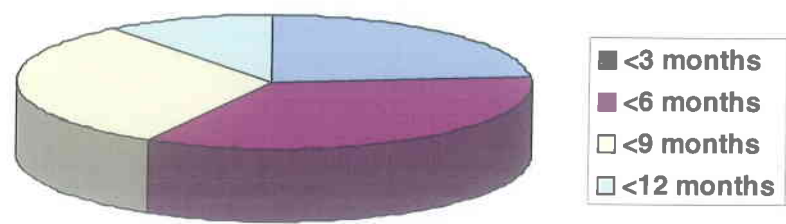


Figure 4. Food security situation among different economic classes in the study area.

seasonal variations in the food supply. For most of the medium class households' food scarcity occurs during the period just before crop harvest. Since poor households depend on wage labor for their livelihood, it is very difficult for them when there is a scarcity of the wage earning opportunity. The primary struggle for poor households' has to do with ensuring food security for the family whereas rich class households' have substantial capacity to achieve nutritional food for the whole year.

Table 33: Food Security among different economic classes

Food Security Level	Rich		Medium		Poor		Total	
	No. of HH	%	No. of HH	%	No. of HH	%	No. of HH	%
< 3 months	0	0.0	0	0.0	13	23.6	13	15.3
3-< 6months	0	0.0	1	5.3	19	34.5	20	23.5
6-<9months	0	0.0	9	47.4	17	30.9	24	28.2
9-<12months	3	23.1	9	47.4	6	10.9	18	21.2
12& 12 + months	10	76.9	0	0.0	0	0.0	10	11.8
Total	13	100.0	19	100.0	55	100.0	85	100.0

Source: Field Survey, March 2002

Coping Strategies in Deficit Period

All sampled households reported that there are mainly three basic ways how people cope with food crisis. First, the household attempts to expand the household economy by diversifying economic opportunity. The second coping strategy is reduction in the level of consumption. The third way of coping with crisis involves mutual assistance through the exchange of resources among the community members.

4 Health and Sanitation

Chronic Diseases

Table 34 shows that people were suffering from chronic disease like cancer, blindness, malaria, diarrhoea, paralysis and so on. Among all economic classes, the majority of households (77.8%) in poor class were suffering from enormous chronic diseases in study areas whereas in comparison to poor households, medium and rich households were suffering from a less number of chronic diseases. On the other hand, among all social classes, about 100%

Dalits households’ were suffering from chronic diseases in the study areas whereas about 66.7 per cent from SC-II households and 62.5 per cent from SC-III households were suffering from chronic diseases. However, in study areas poor class and Dalits households are suffering severely more with different chronic diseases among all social and economic classes.

Table 34: Sufferings from chronic diseases among social and economic classes

Economic Classes	SC-I			SC-II			SC-III			SC-IV			Total		
	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%
Rich	0		0.0	1		33.3	1		12.5	0		0.0	2		11.1
Medium	0		0.0	0		0.0	2		25.0	0		0.0	2		11.1
Poor	0		0.0	2		66.7	5		62.5	7		100.0	14		77.8
Total	0		0.0	3		100.0	8		100.0	7		100.0	18		100.0

Source: Field Survey, March 2002

Health Services

Table 35 shows that majority of upper class households (66.7%) went their treatment with local doctor and some households (33.3%) went to hospitals/ clinics. In SC-II, majority of households (60%) went to hospitals/ clinics for their treatment. In also SC-III and SC-IV, the majority of households (59.2%) and (54.1%) went to hospitals/clinics for their treatment respectively. Particularly, due to availability of sub-health (hospitals/ clinics) posts in the study areas most of the households (57.3%) of all castes/ethnic used hospitals/clinics for the treatment. Only some households (3.2%) used Ayurved for the treatment in the study areas.

Table35: Health services utilized among social classes (No. of HH)

Health facility used	SC-I			SC-II			SC-III			SC-IV			Total		
	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%	No. of HH	of	%
Local witch doctor	2		66.7	14		40.0	18		36.7	15		40.5	49		39.5
Hospital/clinics	1		33.3	21		60.0	29		59.2	20		54.1	71		57.3
Baidhya (Ayurved)	0		0.0	0		0.0	2		4.1	2		5.4	4		3.2
Total	3		100.0	35		100.0	49		100.0	37		100.0	124*		100.0

* Some households used more than one sources of health services

Source: Field Survey, March 2002

Table 36 shows about 50 per cent of rich class households used local doctor and hospitals for their treatment. In medium class households, the majority of households (69.6%) used hospitals /clinics for health services. Similarly, in

poor class households the majority of households (57.3%) utilized hospitals/clinics. In overall, therefore, majority of households (57.3%) of all economic classes in study areas used hospitals/clinics for their treatment to the health services. Only some households in the study areas of poor class households (4.9%) utilized Ayurved for the health services.

Table 36: Health services utilized among economic classes (No. of HH)

Economic Classes	Rich		Medium		Poor		Total	
Health Services	No. of HH	%	No. of HH	%	No. of HH	%	No. of HH	%
Local witch doctor	10	50.0	7	30.4	32	39.5	49	39.5
Hospital/clinics	10	50.0	16	69.6	45	55.6	71	57.3
Baidhya (Ayurved)	0	0.0	0	0.0	4	4.9	4	3.2
Total	20	100.0	23	100.0	81	100.0	124*	100.0

* Some households used more than one source of health services
Source: Field Survey, March 2002

Basic health care training

A total of two males and one female from medium and poor economic classes have got some basic health care training specially relating to the family planning programs. This indicates that the households are lacking training and awareness campaign regarding basic health care.

Family Planning

Out of 85 households surveyed in the study area, 29.41 per cent were found using family planning devices (Table 37). Among economic classes, majority of the rich class households (53.85%) use this device whereas about only 21.82 per cent households of poor class were found to be using this device. Among all social classes, 100.00 per cent upper class (SC-I) households used family planning devices whereas about only 20.80 per cent Dalits (lower castes) used this device. Moreover, it was also found that only the female in the sampled households adopted the family planning devices. This could be because of the domination of male to female in the communities or could also be due to the different nature of physical work undertaken by two sexes. It was found that females were usually engaged in household work while the male of all castes had to work hard physically outside the house. The reasons behind a majority of households of rich and upper class adopting this strategy could be due to

less physical workload for the women in those classes and also more awareness among them.

Table 37: Use of Family Planning devices (No. of HH) among social and economic classes

		SC-I	SC-II	SC-III	SC-IV	Total
Rich	Total HH	2	3	8	0	13
	Using	2	0	5	0	7
	%	100	0.00	41.66	0.00	53.85
	No response	0	2	0		2
	%	0	66.66	0.00		15.40
Medium	Total HH	0	8	9		17
	Using	0	4	2		6
	%	0.00	50.00	16.67		35.29
	No response	0	0	0		0
	%	0	0	0.00		0.00
Poor	Total HH	1	12	18	24	55
	Using	1	1	5	5	12
	%	100.00	8.33	41.66	20.83	21.82
	No response	0	0	2	3	5
	%			11.11	12.5	9.10
Total	Total HH	3	23	35	24	85
	Using	3	5	12	5	25
	%	100.00	21.74	34.29	20.83	29.41
	No response	0	2	2	3	7
	%	0.00	8.70	5.71	12.5	8.24

Source: Field Survey, March 2002

Sanitary Situation

In the study area, there are only three toilets available. One medium HH has safety toilet and one medium and poor HH have ordinary ditch type toilet available. All other HH use open farm field and usually go nearby riverside for defecation. They also defecate on the roadsides or on the streets, which create environmental pollution. The poor sanitary facilities are partly due to the lack of awareness among people of households and partly due to their poverty.

Households disposal facility

A total of only three households (2 from medium and 1 from poor economic class) reported to have safe waste disposal facility. They throw and bury wastes in ditches safely. All the rest households throw their household wastes haphazardly to nearby farmlands, riverbanks, ponds dike, on the road etc.

The disposal of households waste in a haphazardly way to nearby farmlands, river banks, ponds dike and on the road creating environmental pollution is related mainly with water, land and air pollution in the study area. Therefore, the problem of households waste disposal in the communities of study areas has become a serious threat to the environment.

5 Infrastructure Development

Irrigation

All sampled households reported that there was no irrigation facility inside study areas. The farming depends upon monsoon. The lack of irrigation facility in this area hampers to get more yields, which discourages food security.

Drinking Water

The main sources of drinking water in the study areas were hand pipe, public hand pipe, public tap and public well (Table 38). Majority of households (53.8%) in rich class used their own hand pipe as source of drinking water. About 46.2 per cent households in this class used public tap as source. In medium class, about 50 per cent households used public tap as a source of drinking water and some households used other sources for drinking water. Similarly, in poor class majority of households (76.4 %) used public tap as source of drinking water and a few households used from different sources, which are available in the study areas. It was also found that some households (5.7%) in the study areas still use traditional source of public well in the societies. It was because of the lack of other sources of drinking water in the community.

In overall, the majority of the households (65.9%) in the study areas used public tap, as source of drinking water and it was easily accessible to use for them. However, majority of rich households have their own source of drinking water facility whereas poor and medium class households do not have their own adequate source of drinking water.

Table 38: Drinking Water Facility among economic classes

Sources of Drinking Water	Rich		Medium		Poor		Total	
	No. of HH	%	No. of HH	%	No. of HH	%	No. of HH	%
Own hand pipe	7	53.8	3	15.0	3	5.5	13	14.8
Public Hand pipe	0	0.0	5	25.0	7	12.7	12	13.6
Public tap	6	46.2	10	50.0	42	76.4	58	65.9
Public well	0	0.0	2	10.0	3	5.5	5	5.7
Total	13	100.0	20	100.0	55	100.0	88	100.0

Note: Some households use more than one source of drinking water
Source: Field Survey, March 2002

Market Facility

All sampled households reported that there was no market facility available near to study areas. Due to the lack of market facility, it was difficult to sell agricultural products and get involvement in business activities.

V B. Observation, Group Discussion and key informants information

1 Problems and priorities of the poor

A group discussion session, which was participated in by key informants knowledgeable in different sector, was held to identify major problem areas of communities in the study area. Based on discussions, the following problems were identified as major constraining factors for the sustainable development of the communities:

Lack of education, employment, shelter, land, health care facility, credit facility, clean drinking water, problem on livestock raising business, low wage rate, and exploitation from land lords, lack of food security, market and road facility and also mentioned being lower caste unable to participate in many gainful employment opportunities.

After group discussion we became able to prioritize the following problems on the basis of the prime needs of the communities in the study areas:

- ◆ Food deficiency
- ◆ Unemployment
- ◆ Illiteracy
- ◆ Lack of adequate health care
- ◆ Lack of infrastructure (road, electricity, market)
- ◆ Rapid population growth
- ◆ Lack of clean drinking water
- ◆ Environmental degradation

2 Causes of Poverty

Reasons for the persistence of poverty were discussed with the key informants, stakeholders and concerned government and non-government officials of the study area and the district as well. Multiple perceptions existed among the informants regarding the causes of poverty. Similarly, other informants expressed that the causes of poverty of the recently impoverished group differ from those who have been poor for generation.

According to them, the causes for poverty are lack of employment opportunities and low wages for available works. They also indicated that other causes of poverty include lack of productive assets and skills, illiteracy, socio-political networks, credit, population growth and environmental degradation and unequal distribution of resources.

3 Primary Environmental problems

Regarding environmental problems in the study area, discussions were held personally with District Agricultural Development Officer (DADO), District Forest Officer (DFO), Local Development Officer (LDO), some environmentalists and knowledgeable journalists of the district. They were of the opinion that the existing environmental problems in the study area and around are mainly soil erosion, floods (last month more than 250 lives were claimed by floods in Nepal, mostly in Tarai parts), scarcity as well as unsafe

drinking water, heavy deforestation, faster population growth, lack of dumping site for disposal of households waste and uncontrolled use of pesticides and fertilizers for agricultural production. DADO mentioned that farmers use more and more fertilizers with an intention to get more yields, which is creating environmental problems in these areas. DFO and environmentalists mentioned that increasing population pressure is considered to be the common denominator responsible for environmental crisis. Population pressure on cultivated land is not to be understood in terms of relationship between population and total area of cultivated land. It is recognized as the population of a given area increases so its overall demand for the local environment also grows, and it may significantly transfer the character of relationship between “man and environment”. Therefore, rapid population pressure on land resources in rural areas of Taria has resulted in the expansion of farming into marginal cultivable land as well as deterioration of forest creating environmental crisis in this district.

It was also observed in the study area that poor people evacuate in the open field, sometimes it is near the drinking water sources, and contaminates the drinking water. Rural people do not use any specialized technique to purify the water to safe level before they drink. On the other hand, they also cut fell the forest trees haphazardly without considering any environmental consequences. Neither and they have any concern over planting new trees. With regard to household wastes, it was observed that people throw these waste materials on the road passing nearby their residence; it contaminates the breathing air itself and, lot many people were found suffering of different diseases in the study area. The causes of these diseases can be mainly attributed to their living environment.

4. Role of NGOs and GOs in Income Generation Programme in study areas

Through a group discussion where women also participated, it was noted that some NGOs are involved in uplifting the socio-economic conditions of people especially women in some parts of the study areas. These NGOs facilitated

women to form saving/credit groups where they could save few rupees a week/fortnight/month and could borrow for undertaking income generation activities. An important achievement of this approach was also that local moneylenders were discouraged who used to exploit the people in their financial need and used to charge abnormally high interest rate, pushing them back into poverty cycle. This saving and credit programme helps to empower women, to take part in decision-making process and also to control over the distribution of resources. According to them, NGOs working in the area made positive impacts in the livelihood of people including women living there. However, the budget limitation of those NGOs was quoted as the major problem in covering all the downtrodden women in the area. Women were particularly involved in cash crop production, animal husbandry and off-farm programmes as income generation activities.

Besides, there are many governmental and semi-governmental organizations working for the development of different sectors like agriculture, irrigation, livestock, financial service etc., however, these are mainly accessible to richer people. From these organizations, richer people have been benefited more compared to poor ones. It is because of the prevalence of some lacunas in the government's policy and planning and the local influence of the power holders. For example, in the case of Banks they need some kind of collateral to extend any loan. Poor people didn't have any such valuable property that could be mortgaged against the loan they request from Banks. And they were unable to get any loan from such financial institutions. This made them handicapped for undertaking any enterprises. It is thus local government organisations don't seem to be able to win the hearts of both males and females of poor class people. Men and women preferred NGOs for their social mobilization and development through participatory decision-making.

CHAPTER VI

Strategic Planning for Sustainable Rural Development in Nepal

6.1 Rural Development Theory

Rural development is a complex phenomenon involving the interaction of economic, social, political and cultural factor. Rural development is understood to be multi-dimensional which encompasses improved provision of services, enhanced opportunities for income generation and local economic development, improved physical infrastructure, social cohesion and physical security within rural communities. It also enhances active representation in political processes and effective provision for the vulnerable groups in participation for development of rural communities. The concept of rural development places emphasis on facilitating change in rural environments to enable poor people to earn more, invest in themselves and their communities, contribute towards maintenance of infrastructure, which may be key to their livelihoods. In short, rural development helps identify opportunities and to act on them to assess the measure of vulnerable groups and relieve the burdens of poverty. Further, particularly in developing countries rural development programme is concerned with the basic needs of rural poor (Axinn, 1997).

The instruments of rural development

The instruments for rural development include:

- Local economic development fund
- Community clean water supply and sanitation
- Food security
- Rural housing
- Marketing Facility
- Infrastructure
- Agricultural Farming Development
- Assistance to the developmental skills for industry and employment
- Creation of self-sustaining village

- Awareness programme in education and health
- Waste management policy
- Land use planning
- Off- farm income activities

6.2 Sustainable Rural Development

6.2.1 Definition

Sustainable rural development is the path of continuous enhancement in income, awareness, quality of life of rural people in an efficient and equitable manner without any adverse effect on the environment (Koirala, 2001). The specific goals of sustainable rural development are as follows:

- Poverty reduction
- Sustainable economic growth
- Household, national and global food security
- Sustainable natural resources management

6.2.2 Strategy

PDDP (Participatory District Development Programme) can be used as model for sustainable Rural Development. The figure 5 shows how the PDDP model works to improve livelihood conditions of rural people. PDDP provides DDCs with management support to enhance local governance systems through enhanced capacities, information systems and participatory planning and monitoring systems for the development of the villages of VDCs.

Institutional Strengthening: The Programme supports DDCs to strengthen their institutional and professional capacity to plan, monitor and coordinate various district-level developmental activities. To ensure that DDCs are geared to cater to multi-sectoral, people-centered development, the programme offers technical support to the DDCs for the establishment of Programme Sections as well as Human Resource Development Unit into their organizational structure. In order to facilitate the smooth functioning of their developmental activities, the programme also introduces computerized accounting package and provides office equipment and various professional skill development-training packages.

Information System: PDDP helps to establish an information system in order to enhance more informed and responsive decision-making among all stakeholders involved in decentralized participatory development planning and monitoring. This system aggregates development related data from the grass-roots level to the central level. It provides support to the DDCs for establishing Information Units equipped with comprehensive database and Geographical Information System (GIS) maps, so as to enhance coordination and flow of information among institutions working for local development

Participatory Planning and Monitoring: PDDP assists DDCs to implement a "trickle-up" planning and monitoring process, based on the principles of participation, transparent decision-making and coordination between political bodies, technical agencies, NGOs and the communities. This process documents people's needs and available resources at the grassroots level and percolates it up through several prioritizing layers to the district where they are incorporated into the District Development Plan (DDP). These Plans are then forwarded to the central level to be incorporated into the National Annual Plan (NAP) to receive central funding

Village Development Programme (VDP)

This programme is geared towards empowering rural Nepalis to rise above the poverty trap. It urges communities, both men and women, towards self-reliance and self-governance by encouraging them to group into broad-based, multipurpose community-based organizations (CBOs). Through institutional and economic development, these CBOs enhance their capacities to effectively plan and manage participatory and sustainable local development to enable them to uplift their living standard. In the process, they also transform themselves into self-governing institutions at the grassroots.

The Programme offers support to the DDCs to establish a district-level Local Trust Fund (LTF) to implement and expand the social mobilization process in rural villages. The LTF supports these mobilized communities to undertake community-based micro-entrepreneurial activities of their choice, to develop

their professional skill in specialised services, improve their access to market and technology, as well as providing support for the implementation of priority productive investments that provide common benefit to the community through Seed Grant Funds (SGFs). Credit Capital forms the core part of LTF support, and can be accessed by the mature CBOs on the basis of social collateral. This is a revolving fund and its revolving nature is expected to sustain the village development programme.

The CBOs work for the benefit of the entire community, giving first priority to the poor and oppressed. Once grouped into a broad-based organization they rise above individualism and concentrate on collective actions that benefit the community at large.

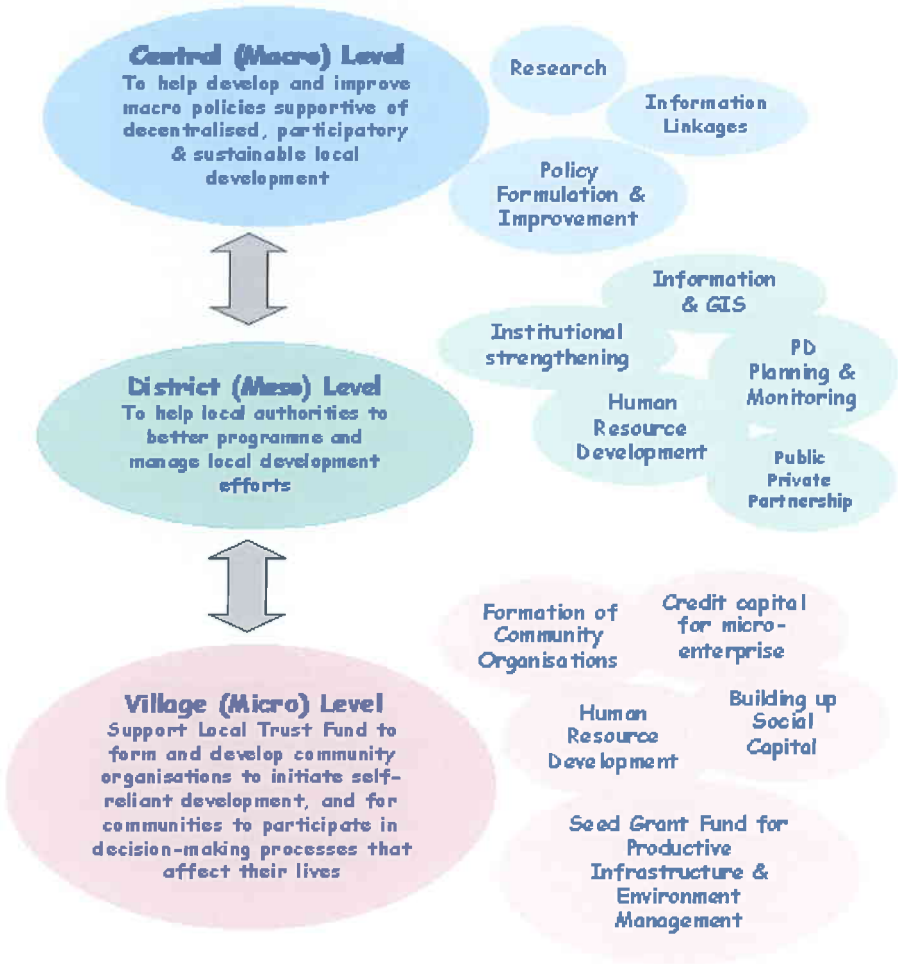


Figure 5, Model for Sustainable Rural Development (Source: UNDP, 1996: Participatory District Development Programme)

6.3 Sustainable development is people – centered development

6.3.1 The concept of sustainable development

In 1970s and 80s, sustainable development emerged as a new discourse built on the convergence of two major discourses, the environmental and developmental discourse (Shanmugaratnam, 1989). However, the concept was not given international recognition and attention until the World Commission on Environment and Development (the Brundtland Commission) published the report 'Our Common Future' in 1987. Sustainable Development was then embraced by many as 'the only rational manner by which to confront the interrelated problems of environmental destruction and necessary economic development (Sitarz, 1993).

The Brundtland Commission's definition of sustainable development is the one most commonly used today: sustainable development is development that meets the needs of the present without comprising the ability of future generations to meet their own needs' (WCED, 1987). The commission wanted to give overriding priority to the basic needs of world's poor and emphasized the limitations on the environment's ability to meet present and future needs. My understanding of sustainable development is based on the definition above and includes several components: ecological sustainability, economic sustainability, social sustainability, cultural sustainability and social equity (intra- and intergenerational). All five criteria are equally important and must be satisfied if the development is to be sustainable. Therefore, sustainable development is the process of human betterment that promotes people's abilities to nourish, enhance, support and reorient their relationship with their environment and their means to meet their own material and non material needs on a permanent basis. The process builds on local capacities (including local heritage, socio-cultural, economic and political institutional arrangements) without foreclosing the options of enrichment from external support.

The UN Conference on Environment and Development (UNCED) in Rio in 1992 has been much criticized, but I still believe it was an important milestone on the trail to sustainable development. Never before had so many heads of government gathered together. A global plan of action, Agenda 21, was approved by 179 states. Agenda 21 is an ambitious attempt to confront the major challenges of the 21st century: disparities between and within nations, worsening poverty, hunger, ill health, illiteracy, unemployment and the continuing deterioration of the ecosystems on which we depend for our well-being (Sitarz, 1993). According to the preamble to agenda 21, the goals of the plan are: fulfillment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. The success of the Rio conference and agenda 21 can only be measured by the degree of follow-up by different countries. Nepal Environmental policy and Action Plan (NEPAP) was prepared in response to agenda 21. Among the goals of the plan are to involve local people directly in the management of local resources, and to entrust responsibility for local level decision-making to local level institutions (EPC, 1993).

6.3.2 Process of sustainability

I would like to elaborate on the need for people's participation, empowerment of low-castes and capacity building to achieve the process of sustainability for sustainable rural development.

6.3.2.1 The need for people's participation

People participation is essential prerequisite for sustainable development. Both the Brundtland Commission and agenda 21 acknowledged that a sustainable development requires broad public participation in decision-making. Individuals, groups and organizations are encouraged to participate in decision -making processes at the local, national and global level. Agenda 21 envisions a global partnership for sustainable development, based on common interests, mutual needs and common yet differentiated responsibilities.

Participation at the local level, often called local participation is particularly important. Many of the problems and solutions addressed by agenda 21 have their roots in local activities, so local communities have a key role to play if sustainable development is to become reality. Brundtland commission recommends to decentralize the management of resources upon which communities depend, and give the communities an effective way over the use of local resources. Essential elements in such a decentralization process are promoting citizens' initiatives, empowering people's organizations, and strengthening local democracy.

Pattern of participation in rural development (Village Levels)

I observed in the villages of study area that the rich, medium and poor class people were participated in this way for the development of their villages.

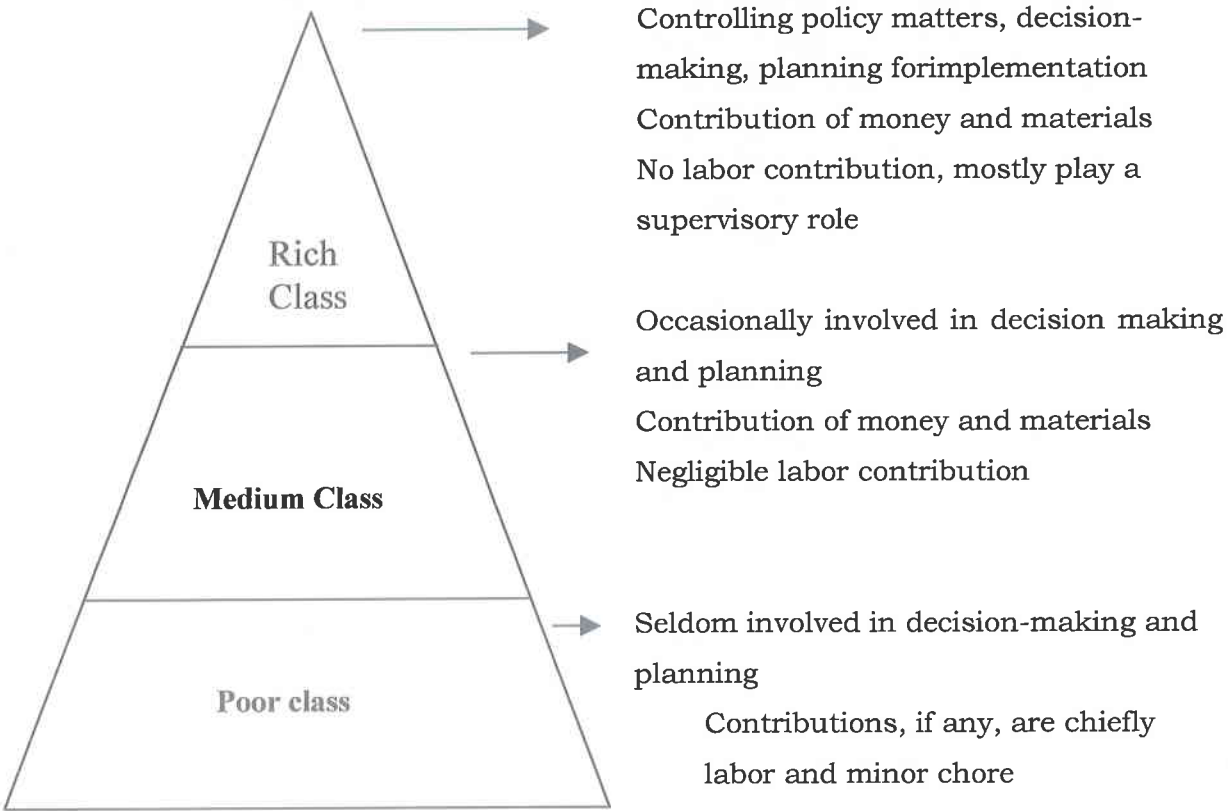


Figure 6 Generalised pattern of participation found in villages of Study Area, Nepal (Model adopted from Setty, 1991)

Agenda 21 encourages local communities to take action by inviting every local authority to consult its citizens and develop a 'local agenda 21'. The focus on local participation in both the Brundtland report and Agenda 21 implies a strong criticism of top-down and technocratic approaches and the realization that development is about involving people in attempts to improve their lives. People's participation helps mobilize local resources and draw the solutions of the concrete problems. Therefore, development must be people-centered (Alstadheim, 1999).

6.3.2.2 Empowerment of low -castes and women

As I have argued that sustainable development is people -centered development. I have also highlighted the importance of local participation in decision-making and identification of problems. In this section I will start out by describing how I see empowerment as a prerequisite for true people's participation. I would like to justify why I want to focus on empowerment of low castes and women in particular. I will then discuss how these groups can empower themselves.

The United Nations Development Programme (UNDP) defines people-centered development as 'empowering people rather than marginalizing them by enlarging their choices and providing for their participation in those decisions that affect them' (Eade, 1997). According to this definition, the UNDP primarily sees participation as a prerequisite for empowerment, without acknowledging that empowerment may be a prerequisite for participation. In fact, I am convinced that true people's participation requires empowerment of disempowered groups. If marginalized people are going to participate actively and effectively, they must first go through a process of empowerment. Another definition reflects this aspect more fully; local participation has been described as 'giving people more opportunities to participate effectively in developmental activities. It means empowering people to mobilize their own capacities, be social actors rather than passive subjects, manage the resources, make decisions, and control the activities that affect their lives'

(Cernea, 1991). The flow diagram in figure 7 summarizes how I view empowerment of disempowered groups as a prerequisite for true people's participation and sustainable development.

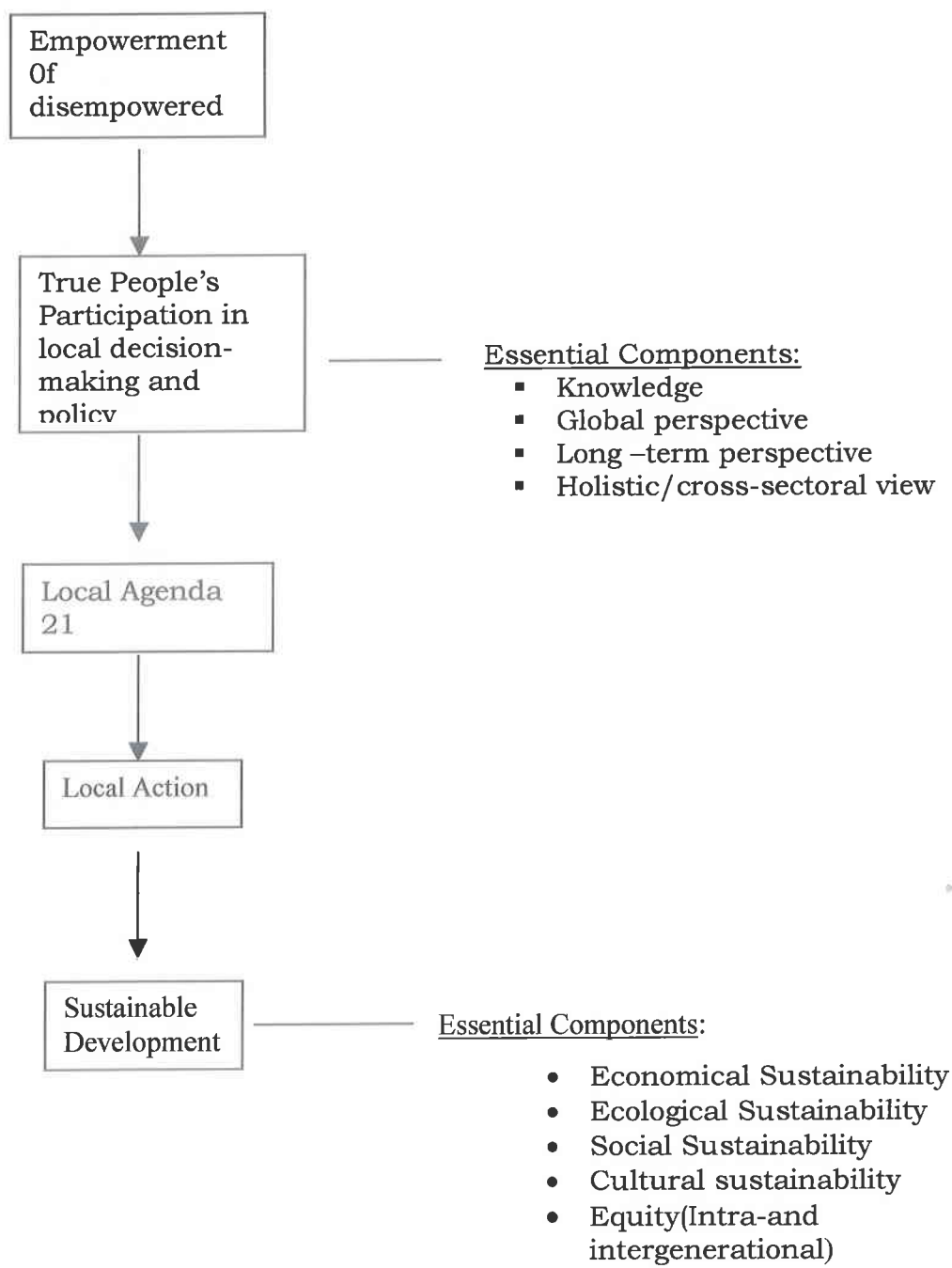


Figure 7 Empowerment as a prerequisite for true people's Participation, local action and sustainable development (a local Agenda process) (Alstadheim, 1999).

We have no guarantee that empowerment and local people's participation will lead to sustainable development of rural areas, but I believe that it increases our choices of getting there because people who depend on local resource have the strongest personal motivation for managing it in a sustainable way. Empowerment means creating conditions which make people capable of making their own choices; what the consequences of the actual choices will be, is difficult to predict. We can only hope that awareness raising and education about environmental and development issues will provide help in informed decision-making and make people capable of making the right choices.

6.3.2.3 Capacity Building

The basic concept of capacity building implies developing the capacity of people and organizations to help themselves and to undertake and implement policies, which contributes to sustainable development. The capacity building is conceived as a process, which empowers, educates and enables local people to understand and respond to their own environmental, economic and social problems for the development of their communities. Through this process, people can generate ideas and confidence themselves and integrate the livelihood activities to become self-reliance (Alstadheim, 1999). Therefore, it brings sustainability in implementation of program by involving local people and mobilizing local resources.

6.4 Government's Plans and policies for sustainable rural development

6.4.1 Ninth Five Year Plan (1997-2002)

Development planning was started in the country in 1955-56 to bring about systematic changes in the highly underdeveloped socio-economic conditions. By now, eight plans have been completed successively and the Ninth Plan (1997-2002) is in the final stage of completion. The Ninth Five-Year Plan, starting in 1997/98, aims at poverty alleviation and has target to reduce the proportion of those living below the poverty line from 45 to 32 per cent by the end of the current fiscal year. To meet this target, Ninth plan aims to raise the

living standard of people living in poverty, introduce special programme for people having no sources of income and production, strengthen socially and financially people who are deprived, isolated and weak, develop physical, social and financial infrastructures in rural areas. However, the Ninth Plan has the single specific objective of poverty alleviation and has adopted a strategy to integrate the policy of the agriculture and forestry sectors for sustainable economic growth (NPC, 2002).

6.4.2 Agricultural Development Policy

HMG formulated a twenty-year Agriculture Perspective Plan (APP) in 1995 to provide a long-term focus and framework within which to prioritize and enhance public investment in rural development. The APP sets out a long-term strategy for improving agricultural sector and accelerating the growth rate to about 5 per cent per annum (APROSC, and JMA, 1995).

The Ninth Plan considers agriculture as a lead sector for poverty alleviation and seeks the assistance of other sectors for sustainable agriculture production. The plan aims to minimize environmental impacts by linking agricultural sector with natural resource management, and promoting women's involvement. The plan further emphasizes the expansion of Integrated Pest Management (IPM) by avoiding excessive use of fertilizers and pesticides, which are used by farmers in Nepal.

6.5 Poverty Alleviation Programme

For poverty alleviation particularly in rural areas in Nepal, government agencies, financial institutions, NGOs and INGOs have implemented programmes aimed at helping poor and vulnerable members of society. These include:

- ♦ Integrated rural development projects
- ♦ Programmes on food and nutrition
- ♦ Targeted credit programs

- ◆ Employment programs
- ◆ Income generation
- ◆ Rural development banks
- ◆ Technical education and vocational training
- ◆ Subsidy and transfer programs
- ◆ Settlement of landless people
- ◆ Small farmer development programme
- ◆ Abolition of Kamaiya (Bonded labor) system
- ◆ Kamaiya Loan Relief Fund
- ◆ Participatory District Development Programme (PDDP)
- ◆ Local Governance Programme (LGP)

As many of these programmes are small in outlay and coverage, their overall impact on poverty eradication is limited. Success has also been limited because the government lack political will, and there is a lack of networking among organizations working in the field of rural development in Nepal (Adhikari and Jha, 1999).

6.6 The visions of policy-makers, researchers, professors and political leaders regarding Sustainable Rural Development

Researchers in Nepal have expressed their views that plans for rural development programs would work only if they are prepared with local people, as it is their perceptions, feelings, knowledge and experiences, which are crucial. Indeed, local-level planning is the key to making development endeavors successful. Local level planning, in turn, is effective only with the intensive collection, meaningful arrangement and systematic analysis of data. One technique for collecting that data is the Poverty Monitoring System (PMS); a component of the Monitoring Microeconomic and Adjustment Policies (MIMAP) program implemented by CECI/ Nepal, with the financial support from the International Development Research Center (IDRC), Canada. CECI/ Nepal has implemented PMS in some districts of Nepal. It has been mentioned

that PMS could achieve a level of efficacy and accountability by involving local people in data collection, arrangement and analysis. PMS is highly successful not only in assessing and analyzing the situation at the local level and in prioritizing programs in the different locations but also in setting the right plan in the right place. It also provides information for upper tier of organization that needs to formulate practical policies and strategies. Experience has proven that PMS is, in addition, a fruitful tool for monitoring ongoing programs. Overall, it supports poverty alleviation.

Researchers have also determined about planning and resource distribution in the local level. PMS also helps local bodies strengthen their capacity to analyze problems and thereby to propose effective measures for overcoming them. It is a simple, understandable, quick, and inexpensive tool, which produces accurate data. Not only does it aid in local level planning and monitoring, but PMS also helps resolve disputes among the functionaries over resource allocation and distribution. It promotes need-based planning at the grassroots levels and encourages transparency. Therefore, The poverty Monitoring System is an effective tool for rural development (Gautam, 2001). Policy maker as well as planner, member of National Planning Commission expressed their views that for the sustainable Rural Development, there is a need to take into account the Macro economic and sectoral policies for poverty alleviation and employment promotion.

It was added that the broad-based and sustainable economic growth at higher rate is essential. For this, the upliftment quality of social services, development of infrastructure, population management and empowerment, protection and creation of income generation opportunities for those living below the poverty line have been taken as the main basis in determining the poverty alleviation programs. It was stated that poverty alleviation program monitoring would be institutionalized by prioritizing all poverty alleviation oriented programs for their effective implementation. Targeted program and projects will be implemented effectively by coordinating them through Poverty Alleviation Fund (PAF).

It was mentioned that the block grants to be provided to the local bodies would be linked to the level of poverty. A mechanism of providing more grants to local bodies remaining in a situation of great deprivation will be developed. Provision has been made to conduct various targeted programs to improve the living standards of deprived, down trodden, backward class and regions, women and children. A system will be developed to monitor whether the actual target group has received the amount allocated for such programs or not. Therefore, the system of community auditing such programs will be developed.

Women scholarships program has been made easily accessible in order to ensure the educational opportunity to all girls and children, especially those belonging to backward and downtrodden classes. It was also stated that arrangement has been made to expand **Food for Works** program to broaden the income earning opportunities of the bonded labors for their reasonable livelihood and conduct non-formal education and employment oriented and skill oriented educational programs effectively.

Finally, it was mentioned that collateral free lending program and vocational skills development program related to poor and Dalits of rural areas will be continued so that such people become economically self-reliant and capable through self-employment program (Source: Survey, March 2002).

Director of center for policy Research and Analysis said that rural development is the long-run consequences of sustainable approach for future generations, which might attempt to survive in particular environment. It was mentioned that for sustainable rural development it is essential to fulfil all criteria i.e. social needs, economic needs and environmental capacity in the communities. Finally, he focused on strategy to ensure economic development for the rural poor on a sustainable basis. Similarly, other experts expressed their views that policies and programs are implemented in an integrated way to reduce population growth, alleviate the poverty and improve the educational status of the rural poor (Source: Survey, March 2002)

District program team leader of UNDP and DDC chairman of Mahottari district development committee mentioned that participatory planning approach is essential for sustainable rural development. In this planning process, the people of rural areas can be able to put their concrete problems for possible solutions, which are made, by the central level planners. Therefore, the bottom-up approach would be able to achieve sustainability in development programmes in the rural areas. Particularly, it was mentioned that Participatory District Development Programme (PDDP) is very effective for sustainable rural development (Source: Survey, March 2002).

▪ Political Leaders

When consulting the leaders of central and district level, they expressed their views that the apparent challenges faced by the country could be political (ideological), economical (technological), social (ethnicity, cultural) and environmental. It was mentioned that present problems of this country are far reaching negative consequences for coming generations. Some of them verified clearly that the major problems being faced by the country are political instability, poverty and environmental degradation. These have mainly been caused due to the economic disparity, political rivalry and ideological confrontations, ethnic conflicts and cleavages, regionalism, and rise of fundamentalism and ecological disturbance and imbalance.

Political leaders also added that the main reasons behind these factors are a lack of trust, confidence and effective communication among the leaderships. Therefore, mainly political instability in the country is hindering development works (source: Survey, March 2002).

CHAPTER VII

Conclusions and Recommendations

Conclusions

This report is the outcome of study conducted in two VDCs namely of Mahottari district of Nepal, with the main purpose to understand the general socio-economic scenario of the area under study.

From this study it was concluded that most of the households in the study area lived in poverty and were deprived of accesses even to basic needs of the life. Majority were dependent upon agriculture and wage labour for their subsistence. Usually they didn't have any regular source of income. The educational status of people was very low and this also consequently affected the livelihood of rural poor.

Survey data were analyzed under three Economic Categories (land holding Viz., Rich, Medium and Poor classes) and four Social Categories (SC-I to SC-IV). All these analyses showed that power, prestige and access to major resources were normally higher among households towards richer households as well as towards socially higher castes (SC-I). Economic and social classes were the major factors that determine their access over different resources.

Dalits (SC-IV) were the most disadvantaged castes of the society and were deprived economically, socially and politically in the society. They had lower access to education also, which consequently determines access to many other resources and to job markets as well. Besides Dalits, women too had lower access to resources and power in decision- making compared to men.

Status of food security was higher among richer class households. Majority of households in rich class had surplus food grains for selling. While on the other hand, majority of households among lower food security categories belonged to medium and poor classes.

Besides households survey, the problems and priorities of poor, causes of poverty, primary environmental problems and roles of NGOs, and GOs in income generation were identified through group discussions and interview with key informants. The major causes of poverty in study area were identified as the rapid population growth, unemployment, unequal distribution of resources, lack of productive assets and skills, loss of land, illiteracy, political instability and environmental degradation.

Finally, the report presents planning and strategies for the sustainable rural development of study area. This planning chapter recommends the efforts and various assistances from government, NGOs, INGOs, international government and development agencies, to alleviate poverty from rural area of Nepal and bring desirable changes to set up the instruments for the rural development.

Recommendations

Based on the study information, some recommendations have been made here that are specifically designed to improve the socio-economic conditions of rural poor and to facilitate their sustainable livelihood development. Recommendations made here are considered to be ecologically viable, socially acceptable and economically feasible for the study area.

People in the study area should be motivated to work towards food self-sufficiency and self-reliance by mobilizing local resources through participatory approach in order to maintain their health, well-being and economic viability for long term. However, there is a need of assistance at the beginning. Besides government agencies, there have been a large number of national and international non-government organizations working in different parts of the country. Some such organizations should work in the study area along with the government agencies, in the lines as suggested below:

1. Implement Family Planning Programme effectively to control population growth or reduce the family size of households, which is seen larger in study area. Educate people about the importance of family planning.
2. Implement universal and compulsory education (formal and informal) programs in order to enhance literacy status of people. Special incentives should be devised to encourage girls to join school. This sort of education can also reduce the child labour.
3. Introduce new policies and programs regarding land reform system, as the present system has been broadening the gap between poor and rich people further over time. Tenants have been working for years with no improvement in their situation while large landlords have been able to exploit the tenants in various ways).
4. Introduce and educate people about organic farming for sustainable production of agricultural crop and it is also the need to mitigate environmental pollution caused by excessive use of chemical fertilizers, herbicides and pesticides in modern agriculture. This type of farming promotes environmental friendly agriculture.
5. To alleviate poverty from rural areas of Tarai region, emphasis should be laid upon agriculture, agro-based industries, agro-trade and rural infrastructure development. These types of industries would increase employment and income earning opportunities to improve livelihood of poor people.
6. Design and implement special targeted programs (i.e. skill development trainings, saving and credit schemes, crop insurance schemes etc.) for lower castes and vulnerable groups in order to improve food security status which has been very low in the study area. The targeted programs should be planned through the bottom up approach.
7. Better credit facility and skills development trainings might diversify the livelihood options of the poor. It may help them adopt some kind of entrepreneurship like (tea stall, groceries, handicrafts etc.). Poor people usually do not have to mortgage against the credit they want from financial institutions. So some financial institutions should come up with new approach like lending loan on people's group guarantee or so. This would

reduce dependency on agriculture and enhance self-employment opportunity. It would discourage local money lenders.

8. Establish and strengthen community groups, as in many other parts of the country, and motivate them to undertake productive activities through group saving and credit mobilization, operating revolving fund, and strengthening women's participation in decision making process for sustainable development.
9. Set up Poverty Monitoring System for local level planning and for promoting good governance and strengthen local government, DDCs, VDCs and civil society as a whole.
10. Give attention to market infrastructure development and set market outlet facilities in study area in order to sell their local agricultural/ livestock products, their labour.
11. Provide some kind of incentives to village/community groups to take part in waste management programme and help design and implement programme to save the environment.
12. Create awareness about the health threats posed by different diseases in study areas through health education extension program.
13. Environmental education (formal and informal) and mass awareness programs need to be widely internalized by development programs.
14. Establish poverty funds particularly for lower castes and poor class people in rural Tarai region of Nepal.

I hope these kinds of recommendations would be ideal for the long-term sustainable development of study areas as well as rural Tarai region of Nepal as a whole. Such recommendations may be desirable for governments, NGOs/INGOs to implement policy and programs for the improvement of socio-economic conditions of rural poor in Nepal.

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ANNEX-1

Pictures taken while conducting Participatory Rural Appraisal exercise at the study area



Socio- economic Conditions of Rural Poor and Planning for Sustainable Rural Development in Nepal

Interview Schedule for Data Collection for Social and economic Research

Name of Respondent: Q.No: -----

Age: Sex: ☐ M / ☐ F VDC: W.No: Caste: Religion:

1. Demographic Details of Household (Number of persons staying under single roof and sharing the same kitchen)

S. No	Name of The Member	Relationship With head	Sex M/F	Age	Marital Status ¹	Level of Education ²	Occupation ³	
							Primary	Secondary
		Head						

Codes to be used

- 1. married =1, unmarried =2, divorcee =3, widow/widower =4
- 2. literate =1, primary level =2, secondary level = 3, SLC and above = 4
- 3. agriculture=1, business=2, service=3, wage labour=4, study =5, others=6

2. Do you, or any of your family members migrate seasonally? Yes No ☐ ☐
If **yes**,

Members migrating	Destination*	Purpose	Duration

* 1 = Within Village, 2 = Within district, 3 = Outside the District, 4 = Outside the Country

3. Land Particulars (In Kattha)

Type of Land	Own	Rented		If irrigated, Source of Irrigation	Total Operated land
		In	Out		
Khet					
Orchard					
Others					
Total					

4. How many livestock and birds do you have?

Livestock	Number			
	Own	Rented-in	Rented-out	Total raised
Cattle				
Ox				
Calf (S/he)				
Cow				
Buffalo				
Small				
Large				
Goat				
Sheep				
Total/Overall				

Poultry				
Pigs				

5. What household assets do you own?

Category	Item	Number	Present estimated value (NRs)
Agricultural	Tractor		
	Threshers		
	Irrigation Pump		
	Bullock Cart		
	Wooden plough		
	Spade		
	Others (specify)		
Household Items	Television		
	Radio		
	Gas Stove		
	Telephone		
	Vehicle: Two-wheeler		
	Vehicle- Four wheeler		
	Bicycle		
	Others (specify)		

6. Are any governmental/ Non-governmental Institutions working in your villages?
Yes ☐ No ☐

If yes, please specify the names of institutions

7. Does your household a member (s) of hold membership any institution in the village (formal or informal)?

Type of Institutions	M/F	Number of membership	
		Ordinary Member	Exec. Member
DDC/VDC or Ward			
User Groups			
Community Forestry			
Drinking water			
Irrigation			
Religious groups			
Social group			
Mothers club			
Saving Credit group			
Others (specify)			

8. What benefits your household derive from the GOs, NGOs and INGOs ?

Name of the Programme	If yes, cash/kind received
Old Age Pension	
Widow Pension	
Disabled/Handicapped Pension	
Dalits/Nationalities Development Program	
WFP/Food for Work	
Any other welfare schemes like Biseshwor for poor, etc.	
Women Income Generation Programmes.	
Others (Specify)	

9. Please provide the information on current loan burden of your household

Source	Amount (In NRs)	Purpose	Interest rate
Moneylender			
Relatives			
Credit co-operatives			
Bank			
Rural finance institutions			
Other Source (specify)...			
Total			

10. Please give information about the approx. cash income per annum and source of income

Source	Approximate Annual Income (In Rupees)
Agriculture	
Sale of cereals	
Sale of horticulture products	
Sale of livestock & livestock products	
Wage Labour	
Casual Agricultural Labour	
Permanent Farm Labour	
Occupational Income (caste based)	
Regular Job	
Business/Trade	
Sale of Forest products	
Pension i. From within the country ii. Outside the country	
Remittances	
Others specify	

11. Normally, how much do you spend on following items *per annum*?

Items	NRs./ annum	Items	NRs ../ annum
Food		Festivals	
Cloths		Religious	
Health		Guests	
Marriage		Alcohol, smoking etc.	
Education		Others	

12. Are you able to save any amount from your earnings?

a) Yes b) No

If yes, how much per year?

13. How many months does your own production meet the household food requirement?

Self-sufficiency months	Click the appropriate box
< 3 months	
3 - 6 months	
6 - 9 months	
9 - 12 months	
12+ months	

14. How do you cope the deficit period?

15. If any of your children left school during last one year, what was the reason?

Reasons	Boys		Girls	
	No.	Age	No.	Age
Lack of money				
Household work				
Parents' unwillingness				
School environment				
Religious/caste matter				
For marriage				
School distance				
Others				

16. Do you have market facilities near to your community? a) ☒ Yes b) ☐ No
 If yes, what is the distance and how much time does it take to reach the market?
 Distance:km; Time:Hrs.

What are the means of transportation?

17. Drinking water facilities and their ownership: tick the appropriate boxes

Ownership	Hand pipe	Tap	Well	Tube-well	Other sources
Own					
Public					
Private (others)					

18. How much time do you spend daily for carrying drinking water?
 a) ☐ upto 30 minutes b) ☐ upto 60 minutes c) ☐ upto 2 hours d) ☐ more than 2 hours

19. What type of toilet do you own?
 a) Safety toilet b) Ordinary toilet c) No toilet

20. Do you have facilities for safe disposal of household waste?
 a) ☒ Yes b) ☐ No
 If Yes, what type of disposal facility?

If No, where do you dispose?

21. Do you or any of your family members suffer from a chronic illness?
 a) ☒ Yes b) ☐ No
 If yes, whom?
 What illness? ☒ Heart problem ☐ Cancer ☐ Diabeties ☐ Liver problem
☐ others.....

22. Where do you go for treatment?
☐ Traditional healer ☐ Hospital ☐ Baidhya ☐ Clinic
☐ Others.....

23. Whether any member in your family has taken training on health care?
 a) Yes b) No
 If yes, how many? Male ... Female

24. How old were you when you married? HH head years;
Wife.....years

25. What was the age of mother when she delivered first? Years

26. Whether any of your family members have adopted family planning devices?
a) ☐ Yes b) ☐ N

If yes, please give the following information

Sex	Number	Permanent device	Temporary device
Male			
Female			

If no, what is the reason?

- a) Service not available b) Expensive c) Religious reason
d) Want more children e) Due to fear f) other reason (specify).....

27. Are your children involved in various household chores? Please list the activities for boys and girls.

Boys	Girls
------	-------

28. If your children are involved in income generating activities, please list the activities for boys and girls and mention the annual income from those activities.

Boys		Girls	
Activities	Rs./annu m	Activities	Rs./annu m

Research Questions for Group Discussions in the Community

1. What are the main problem areas in priority to improve the general condition of your community?
2. What kinds of programme do you need in your community to improve your economic condition?

Research Questions for VDC, DDC members, District Level Organisations, Political Leaders and environmentalist

1. In your opinion, what are the main constraints for the development of the villages?
2. Do you have any programme and policies to mitigate the developmental constraints?
3. What kinds of policies and programme do you need for the development of your villages?
4. At the time of decision making for the implementation of developmental activities, what do you do? (Involvement of local people, local leaders, teachers, professional people etc.)
5. What are the main reasons behind environmental degradation in the study area or in the district as a whole? What do you think about it?
6. In your opinion, what kinds of policies, plans and programme are essential for the sustainable development of rural area?



Study on the Socio-Economic Conditions of Rural Poor and Planning for Sustainable Rural Development in Nepal: A case study of Mahottari District

Indra Prasad Mandal

Promoter: Prof. Walter De Lannoy

Outline

- Introduction
- Objectives of the Study
- Study Area
- Materials and Methods
- Results and Discussions
- Plans for Sustainable Rural Development
- Conclusion and Recommendations

Introduction

- Nepal is one of the LDCs in the world
 - Low human development index - 129
 - Low per capita income - \$ 220
 - Low literacy rate - 41.8 %
 - High population growth rate - 2.32%
 - About 42 % of population living below the poverty line
- Nepal has 3 ecological regions -Mountain, Hill and Tarai
- The Tarai Region - the southern plain part of Nepal
 - This region covers 20 districts of Nepal,
 - About 23 % of total land area and
 - About 47 per cent of total population
 - Tarai is inhabited by 40 % of ethnic and cultural groups
 - Majority of people living in this area are poor having very limited access to resources, small size of land or no land at all

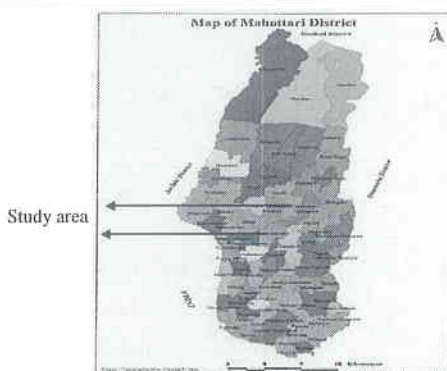
Objectives of the Study

- ❶ To study the socio-economic conditions of rural poor in the Tarai region of Nepal
- ❷ To identify and prioritise the problems of the target community and suggest the mitigation measures
- ❸ To study the constraints of sustainable rural development in the Tarai region of Nepal
- ❹ To suggest recommendations/ suggestions to meet the needs of target communities in general

The map of Nepal



The map of study area



Materials and Methods

- Questionnaire Design
- Sample Size and Selection
 - 85 households
 - Simple Random Sampling Method
- PRA(Participatory Rural Appraisal)Exercise

Distribution of Sample Households

Econo mic Classes	Social Classes				Total
	SC-I	SC-II	SC-III	SC-IV	
EC-I	2	3	8	0	13
EC-II	0	8	9	0	17
EC-III	1	12	18	24	55
Total	3	23	35	24	85

- Data Collection (Both Primary and Secondary information)
 - Primary Information
 - Qualitative research methodology
 - Structured and semi-structured Interview
 - Check list and open-ended questions
 - Households Survey
 - Pre-test 10 households for survey
 - Personal Interview method
 - Field Observation
 - Focus Group Discussion
 - Secondary Information
 - Published and unpublished documents/ reports
- Data Processing and Tools of Analysis
 - Data Compiled and tabulated using Computer packages MS Excel and Statistical tools-SPSS

Results and Discussions

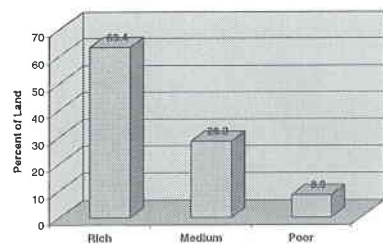
Households Survey

Literacy Status of Population (6 years and above) In the Study Area
 39.40%

Among Literate Population:

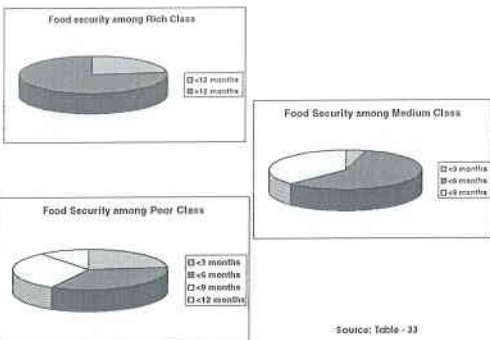
Source: Table - 7

Land holding Status among different economic classes



Source: Table - 12.

Food security situation among different economic classes in the study area



Source: Table - 33

Observation, Discussion and key Informants Information

The major constraints of sustainable rural development in the Study Area

- Food deficiency
- Illiteracy
- Unemployment
- Unequal distribution of resources
- Lack of adequate health care
- Lack of Infrastructure
- Rapid population growth
- Lack of clean drinking water and sanitation
- Environmental Degradation
- Lack of credit facility

Primary Environmental problem in the study areas

- ❖ Soil Erosion
- ❖ Floods
- ❖ Unclean Drinking Water
- ❖ Deforestation
- ❖ Rapid Population Growth
- ❖ Lack of households waste disposal facilities
- ❖ Excessive use of pesticides and fertilizers
- ❖ Lack of sanitary facilities

Plans for Sustainable Rural Development

- ❖ Government's plans and policies for sustainable rural development
 - ❖ Ninth five year plan
 - ❖ Agricultural Development Policy
- ❖ Process of Sustainability
 - ❖ Participation
 - ❖ Empowerment
 - ❖ Capacity Building

Conclusions and Recommendations

Conclusions

- ❖ Most of the households in the study area living in poverty and are deprived of accesses even to basic needs of the life.
- ❖ Majority are dependent upon agriculture and wage labour for their subsistence.
- ❖ The educational status of people was very low and this also consequently affects the livelihood of rural poor.
- ❖ All the analyses show that power, prestige and access to major resources are normally higher among richer households as well as towards socially higher castes. Economic and social classes are the major factors that determine their access over different resources.

Recommendations

Based on the study information, some remmendations made here are considered to be ecologically feasible, socially acceptable and economically viable for the study area.

- Implement Family Planning Programme effectively to control population growth by educating people about the importance of family planning.
- Implement compulsory education (formal and informal) programs in order to enhance literacy status of people.
- Design and implement special targeted programs (i.e. skill development training, saving and credit schemes etc.) for lower castes and vulnerable groups in order to improve food security status through the bottom up approach.
- Better credit facility and skills development trainings might diversify the livelihood options of the poor.
- Provide some kinds of incentives to village / community groups to take part in waste management programme.

Recommendations.....

- Introduce new policies and programme regarding land reform system, as the present system has been broadening gap between poor and rich people further over time.
- Mobilisation of local resources through participatory approach would help them attain food self-sufficiency and self-reliance as well as improve their health, well-being and economic viability in the long term.

Thank you

