A COMPARATIVE STUDY OF LIVING STANDARDS OF RURAL PEOPLE IN NEPAL & INDIA



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"ABSTRACT"

A COMPARATIVE STUDY OF LIVING STANDARDS OF RURAL PEOPLE IN NEPAL & INDIA

Nepal is a small landlocked country about 500 miles long and 100 miles wide and it has population of around 23 million with the growth rate of 2.37 percent per annum. It is located in the Himalayan Mountains and bordered by China in the north and India in the south, east and west. With the per capita income of US\$220, Nepal is one of the least developed nations in the world. Infant mortality rates are among the highest in the world and life expectancy at birth among the lowest. Half of the population lives below the absolute poverty line. Additionally, the country's lack of infrastructure, such as transport and communication, has severely limited its economic opportunities. Historically Nepal has relied heavily on foreign aid for development. Finally, as Nepal is a landlocked nation with a small domestic market, and limited natural resources, it must have been relied on its neighbor, India, for any international market opportunities.

Despite the planned development efforts during last four and half decades, Nepal has not been able to improve economic condition. The government must consider strategies for reducing poverty and raising living standard. In addition to the equity considerations, the barriers faced by women and the poor limit their ability to provide the basic needs of their families. For this the government must try to utilize its own resources, human as well as natural, in order to raise the standard of living of the Nepalese people. There are various sectors, in which the government must draw its intention in order to bring the economy to path of development.

Agriculture is the backbone of the Nepalese economy, means of livelihood for majority of the population and the main source of gross domestic production, income and employment generation. It, therefore, rightly deserves the top most priority because the economy is still caught up in the initial stage of its development where the income generated through industrial sector as well as internal market expansion from non-agriculture sector depends upon the development of agriculture sector. The agriculture sector in Nepal contributes 41 percent of the GDP and employs and estimated 81.2 percent of labor. As the majority of the population depends totally on agriculture, it is the key to the economic development of Nepal. In order to achieve the goals of improving the lives of the people in Nepal, significant investment in irrigation, fertilizers, diversifying crops, forest management, and expanding rural infrastructure are needed.

Nepal has over 6,00 rivers and streams and tributaries. Based on annual run-off of rivers the theoretical potential hydropower of Nepal is estimated to be about 83,000MW, which is one of the largest potential in the world. Sites, which are technically feasible for development, could yield and estimated 44,000MW of installed capacity and about 95% of this could, based on the experience of the past evaluations, be expected to be economically viable. However, Nepal has so far been able to utilize only a small fraction of this potential resource. Till now only 261.918MW (0.3% of the total potential) have been installed. At present electric

power supply is available to only 15 percent of the population. A large amount of power produced in Nepal can be easily exported to neighboring countries. In addition to power generation, some of the identified projects can bring enormous benefits in terms of irrigation, flood control and inland navigation, beyond the Nepalese territory.

Nepal has been a tourists' paradise for many years. as a country of amazing attractions, both natural and man-made, it offers a memorable experience for every visitor. Nepal is the home to the world's highest mountains, including Mt. Everest (8848m). Enchantment is everywhere, be it one the shoulders of high snow-fed mountains, or terraced farmlands scrupulously carved like stairways on the hillsides, or cascading mountain rivulets and rushing rivers, or in forest full of wildlife, flowers and bird song. The total foreign exchange earning from this sector in the fiscal year 1998/99 was equivalent to Rs. 12,167.8 million, which was 15.9 percent of the total foreign exchange earnings. Nepal, a beautiful Himalayan kingdom, can create tourist magnetic atmosphere if the government as well as private sector take initiative in constructing more tourism infrastructure development.

In addition to the Water Resources, Nepal has a huge potential of Human Resources, which, if utilized effectively, can be the major factor for the development of Nepal. The national human development index (HDI) for Nepal, computed as an un-weighted average of values achieved in level of living, knowledge and health, is 0.378. the absolute value of Nepal's HDI is only 45 percent of the global HDI. Within the South Asian region, all countries, with the exception of Bhutan and Bangladesh, enjoy a higher HDI than Nepal. Average life expectancy, within the last two decades, has increased by 13.5 years. However,

average life expectancy is only 55 years (1994 figure). Infant mortality, while decreasing by approximately eight percent annually within the last two decades, nonetheless, claims one out of every 10 births. Infants in the rural areas are exposed to 1.6 times the risk of death compared to those in the urban areas. Incidence of maternal mortality is one of the highest in the world. Literacy rate has been increasing very slowly in Nepal. The current national literacy ratio is 40 percent. Only about 72 percent of the 2.7 million 6-10 years-old children are enrolled in school (1995 figure). Gross enrollment in primary schools, however, nearly doubled from 1.75 million in 1884 to 3.26 million in 1995. The number of primary school teachers nearly doubled between 1984 and 1995. rates of repetition and dropout are very high even at the primary level. Only 10 percent of all the children enrolled in grade one complete primary school (i.e., grade five) without repeating any grade. The economy is overwhelmingly rural and agriculture-based. The rate of growth of the working-age population is high at 3 percent/year. Work participation starts at an early age. More than four-fifths of the workers are engaged in the low productivity agricultural sector. The service sector accounts for one-sixth of the work force. Only a small proportion of the workers are engaged in industry, of which two-thirds are in manufacturing. Unemployment rate is high at 14 percent (1997 figure). The scale of underemployment is higher still: approximately one-half of the labor force works for less than 40 hours a week. Seasonal and long-term movement of labor is large in scale and has grown further within the last decade. While the landless, the highly indebted and members of the "low-caste groups" appear to migrate in larger proportions, even the relatively well-off individuals and households join the ranks of the labour migrants. The scale of international (principally India-Nepal) labour movement also appears to have increased within the last decade. The inflow of laborers from India, who are engaged in various sectors, e.g., agriculture, industry, construction and informal sector trades, is also adversely and significantly affecting the employment opportunity of Nepalese laborers.

During the Rana period before 1950, Nepal was not interested in foreign aid, as it was viewed as an intrusion. However, since the 1950s, Nepal has opened up to foreigners and recognized the possible benefits of modern technology. The government began to accept foreign aid, and since then Nepal has continued to become increasingly more and more dependent on it. Foreign aid inflow into the country has steadily increased and aid in the form of loans is much larger than grants.

Indeed, the central constraint on Nepal's development over the last few decades has not been the scarcity of financial resources, but the lack of effective governance and well functioning institutions, which can adequately perform the vital state functions that are essential for a sound economic and social development process. There are many manifestations of the governance problem in Nepal, including weak institutions and procedures, lack of ownership of development projects and programs, lack of accountability and mismanagement of resources, failure to provide effective delivery of public services, including law and order, and the absence of a well-functioning judicial system, all of which are reflected in increased corruption.

Nepal's social, financial, and political conditions prevent it from improving its macroeconomic condition, yet it is apparent that something must be done to take the economy to the path of development. If policies were implemented to

restrict immediate focus on water resources and human resources development together with good governance, Nepal would benefit by improving its economic and social conditions. Such focus would giver time for its newly democratic government to stabilize, to work on improving relations with India, and to begin to rely less on foreign aid. Hence, for the development of Nepal, the policy of the government of Nepal should be towards improving the agriculture and power generation sector as well as basic infrastructure including transport and agriculture and power generation sector as well as basic infrastructure including transport and communication.

This study basically aims to see Living standard of Rural people in various Plans in Nepal follow the same pattern or not. The difference in plan pattern has been identified with the help of difference in objectives, strategies and policies along with the existence of socio political and economic situation in which the plan was prepared.

Just after few years after the downfall of Rana Rule, the then government made an stride in the direction of improving the wellbeing of people by starting the first development plan in 1956. It is the first turning point in economic development of Nepal because the plan had envisaged creating a socio economic environment so that people of Nepal could also live a happy and prestigious life. During Rana regime, most of country resources were utilized for the pleasure and prosperity of few Rana rulers and their relatives. The plan was not successful as thought. The main reason of the unsuccessfulness was given to the lack of basic infrastructure, i.e. information about the economy for formulating an efficient plan. Hence the second plan was not started just after the end of first plan. The second plan started one year late. Thus there was a planning holiday of one year.

This holiday was used in preparing the basis of planned development. However, it was successful in the way that it had opened a door of planned development in Nepal and had tried to divert the resources for uplifting the life of mass.

So far since the commencement of first plan in 1956, Nepal has completed ten plans till 2006 in a long period of almost of fifty years. All are of five year plans except the second one that was of only three years extending from 1962 to 1965. First seven plans were completed by Panchayat system. Multi party system under the kingship had completed eighth, ninth and tenth plans. This is the final year of ongoing three year interim plans that has been started after the downfall of kingship because of historical people's movement in 2006. In the whole period of planned development, all plans have not been found of the same pattern because of the changing socio political condition and demand of time regarding the switch in economic policies. So far, three major turns have been found in the total period of almost half century of development plans in Nepal that have been mentioned below.

Excessive Control and Regulation:

The control-oriented development approach of the past created many problems. Increased government control, adhoc regulations and procedures, license requirements and other forms of counterproductive bureaucratic behavior tended to discourage decision making process and delays in the disbursement of budgets increased project implementation cost and resulted in the under utilization of the administrative capacity.

Inefficient public Enterprises:

The performance of state owned enterprises reached a stage of great inefficiency, indifference and apathy. The financial liabilities of these enterprises exceeded the capacity of the government. These enterprises suffered as a result of over staffing, political intervention, inefficiency and the lack of accountability.

Inefficient Investment Portfolio:

Cost-benefit ratios and other criteria which measure the economic and social benefits of projects were neglected in the course of selecting projects to be implemented in various sectors and sub-sectors. The interrelationship among projects and alternative investment options were not taken into consideration. As a result, investment could not be channeled to productive sectors. Many projects were not justifiable from economic and social points of view.

High cost of Economy:

In view of the inaccessibility and the ruggedness of terrain, it was not unusual for the production and delivery costs to be high. But in addition to these realities, the cost component pf the economy had been further aggravated by the dominance of donor driven projects, economically unproductive investment, lack of discipline, limited economic resources of projects, unwarranted expansion of bureaucracy and lack of efficient implementation capabilities.

Inefficient Administration:

Inefficiency in the administration has led to a further deterioration in the government's institutional abilities to effectively implement development

programs. The civil service that had been expanding continuously was found under utilize and lacked motivation. Traditional administrative and economic structures, highly centralized authority and the lack of sufficient power at the local levels were some of the reasons of inefficient administration.

Faulty Planning Process:

The planning process remained very weak and was poorly institutionalized. While projects were chosen on an adhoc basis without due consideration to any social or economic criteria, government investment in projects were not based on any long term sustainability considerations. In Consequence, there was always a scarcity of resources at the implementation phase. Political decisions were often autocratic and feudalistic. As a result, the planning process lacked accountability and was unable to induce genuine popular participation. Most of the programs became centrally directed in addition to being donor driven.

Sustainable Economic Growth:

One of the principal objectives of the plan was to achieve a high and sustainable rate of economic growth without which there was no possibility of achieving economic prosperity and its continuity. The economy would not be able to fulfill the development aspirations of the common people without a sustainable and high economic growth rate. The Ninth plan was determined to achieve a high a sustainable growth rate in the development efforts of the country. Sustainable economic growth also implies the management of the available bio-physical resources in the most productive manner without damaging or depleting these resources. The demand for such biophysical resources should not exceed their sustainable supply capacity. However, the present population of the country is

already placing excessive demands on existing resources. If the present trend of population growth is allowed to continue, it will not be possible to meet the demands of the people without causing permanent damage to the bio-physical resources.

Therefore, it was highly essential to reduce the rate of population growth in order to achieve a sustainable economic growth rate. To achieve the above mentioned objective, this plan had called for the involvement of private sector and increased people's participation at the community level. The plan had made additional efforts to increase the productivity of labour force and to make the financial investment more productive. Similarly, programs with higher comparative advantage were to be implemented in agriculture, industry, tourism and other sectors. Comparative advantage could be achieved by the utilization of low cost hydro-electricity and other natural resources in the production process. This would produce a comparative advantage especially in energy-oriented industries and irrigated cultivable land. For this purpose, the advanced technology and institutional reforms would be made indispensable tools of support to the private sector and organization down to the village level and production would be increased on the basis of equity and capability.

Poverty alleviation:

Despite the development efforts of the past, the population living below the poverty line has been steadily increasing and the majority of such poverty ridden people live in the rural areas. The biggest challenge for the then government was to alleviate poverty from the rural sector. It was the root cause of many of the existing problems of Nepal such as population growth, environmental degradation

and social anomalies. Therefore, another principal objective of this plan was to alleviate poverty.

Although poverty is the result of diverse factors, the basic causes of poverty in Nepal are the dependence of the increasing population on limited economic resources and low rate of economic growth. The visible impediments to economic growth such as natural constraints, preliminary stage of development efforts, low productivity, subsistence agricultural system and slackness in the expansion of non-agricultural sector were found the major factors for a weak economic base. In this perspective, emphasis was given on formulating integrated and interregional programs that primarily focus on the creation of productive assets base and additional employment opportunities to alleviate poverty. Extension of social service like health education, vocational training, drinking water, effective management and protection of natural resources were to be taken as the additional measures of poverty alleviation. Most of the programs would be implemented with the objective of benefiting the population living below the poverty line.

Reduction of Regional Imbalances:

In Nepal, poverty has acquired spatial variations. Despite policy-pronouncements and efforts in the previous plans, disparities between rural and urban areas and among development regions have increased. Over the recent year, there has been an increased trend of migration from rural to urban areas. Hills to Terai migration continue. If the disparity in urban and rural income is not reduced, this trend my gain greater momentum. Similarly, in comparison with other development regions, far western region and mid western region lag far behind in respect of infrastructural and social service facilities and other development

works. The living standard of the people of these regions have adversely affected by the growing disparity of income distribution caused by these factors. This has further complicated the creation of equal opportunities for sharing development benefits. While allocating resources in order to achieve regional balance, due attention had been paid to the necessity of creating physical infrastructure in these less developed regions. With this objective, while special emphasis had been given on the extension of rural roads, due importance had been attached to the provision of facilities like primary health care, education and drinking water in rural sector. The regional complementary interrelationship between Hills and Terai arising out of the existing agro-ecological condition could be beneficially utilized for agricultural and industrial specialization.

Therefore, the current and future development perspectives would be accorded special emphasis in order to benefit from the ecological interrelationships between Hills and Terai. Focusing on the development of less development regions, special emphasis would be laid on the reduction of regional imbalances. In order to achieve the principal objectives mentioned above, it had become essential to improve economic standard of rural people to achieve the self-sustaining rural development through the increased provision of social, economic and market services, and increased access to drinking water and alternative forms of energy.

To promote good-governance and effective service delivery:

By strengthening the value of rule of law and state machinery, creation of people's participation, transparency, accountability and a corruption-fee environment, the access of all Nepalese including those excluded in economic and

social service delivery will be increased. For this, the private sector and civil society (including NGOs and community organizations) will be accepted as partners in development. Necessary laws, policies and programs will be revised, formulated and implemented in addition to an emphasis on decentralization, institutional strengthening and capacity development.

To increase investment in physical infrastructure :

In addition to putting special emphasis on reconstruction and development of social and physical infrastructure, new concepts will also be utilized. In the context of infrastructure, strategy will be adopted to construct mega, medium and small-scale projects with the help of identification and participation of local people. In addition, the road that connect district headquarters, north-south corridors, rapid transit roads and road networks will be given special emphasis. Similarly, transport mediums like cable cars and ropeways that are significant from the perspective of tourism will be developed. Small and medium hydroelectric projects currently being constructed will be completed. Initiatives will also be taken to make mega hydroelectric projects started. Information and communication technology will be extensively expanded. In the case of infrastructures build through large investments, priority will be given to have their regular maintenance and quality improvement.

To give emphasis on social development:

Additional investment will be made on education, health, drinking water and sanitation and other social development activities to develop human resource and raise the living standard of the people. In order to make the services from these sectors effective, the responsibility of managing these services will gradually be transferred to the local bodies.

Clear policies, institutional structures and programs will be implemented focusing on the excluded groups like Adibasi Janajatis, Dalits, Madhesi, women, and people with disability, extremely poor people and the people of remote geographical areas who are in this state due to prevailing discriminatory practices in society and weaknesses of state structures as such. While adopting the inclusive development process, participation of excluded groups in development investment and outcomes will be ensured and geographical, economic, social, gender solidarity and re-integration will be emphasized. This approach seeks to make special efforts in ending all forms of discriminations, promoting multiculturalism and guaranteeing peace. In order to ensure a basis for inclusive development macroeconomic, social and political development processes will gradually be engendered. Special programs for areas falling in the shadow of development programs like karnali zone and regions along district/international borders will be carried out. Programs will be launched to bring all types of excluded groups of people in the main stream of development. Even in the 21st century, many individuals, groups and communities are still living a life that is unacceptable from a humanitarian point of view and from the perspectives of food security, health, education and other socio-economic conditions. Therefore, it has been thought that targeted programs will seek to end these conditions. Similarly, the people affected by conflict will be provided with relief and they will be rehabilitate and social reintegrated.

Nepal has been trying to develop the country with the help of various development plans. So far, ten such plans have been completed. A huge

infrastructure has been created. Nepal has a wider prospect of fostering development if it can minimize its challenges in the path of development on the one hand and intensify the people's participation on the other. However, its challenges are not always the same. Fro example, the major challenges at present are the presence of various types of conflicts, lack of economic confidence among domestic and foreign investors and lack of rule of law that has been causing the vandalism at all parts of the country. The country has opportunities also along with challenges. The opportunities like challenges also change time to time. Because of changing nature of opportunities and challenges, the development plans in Nepal have been found taking new turns in the course of time. So far, there has been found three major turns in the history of planned development of Nepal. First turn is associated with the fifth plan which had been made basically to focus the regional development and strengthen the involvement of government control in economic activities through the policy of party less Panchayat system. The second turn is found with the launch of eighth plan which was the first in itself after the restoration of democracy in Nepal it had focused the concept of privatization and economic liberalization. The third turn is in the form of three year interim plan that has been started after the downfall of kingship because of the historic people's movement in 2006. The turns have been analyzed basically on the basis of visions/objectives and strategies of the plan on the one hand and the change in socio political situation in the country on the other. As far as the turns are concerned, these are good until and unless these produce positive economic results. The effects of turns are positive. Nevertheless, these are not that much effective as expected. Various factors are responsible for this. However, lack of accountability at various levels, absence of good governance and lack of people's

participation to the desired extent are some of the major impediments on to the path of development plans.

CONCLUDING REMARKS:

On the whole, the data on Living Standard of rural people in Nepal are sketchy and fragmentary. It is, therefore, necessary to gather both the micro and macro level data while analyzing the problem of Living Standard of rural people in Nepal. Data on landowners, tenure, income, food production and consumption, employment, literacy, health, and other demographic measures are helpful in understanding the dimensions of Living Standard of rural people. These data assess the socioeconomic conditions of people and can be considered determinants of Living Standard of rural people in Nepal.

On the other hand, the available macro level data on Living Standard have questionable reliability, and the scholars who have relied heavily on such data seem to have misconstrued the dimensions of Living Standard in Nepal. Similarly, the micro level data are still too sketchy to assess the overall Living Standard situation.

However, considering some of the micro and macro aspects of the relationship between land ownership and poverty, food consumption and poverty, and access to public services and poverty, Nepal's current socioeconomic condition is staggering and seemingly hopeless. With the exception of the food consumption data, all other data confirm that most rural Nepalese are poor.

Rural poverty in Nepal is associated with a number of economic factors : population growth, minimal landholding per capita, poor productivity of land, lack

of marketing facilities, lack of alternative employment opportunities, poor educational attainment, and the overall socioeconomic structure which favor the rich over the poor.

The other dimensions of persisting low Living Standard are due to existing sociocultural values. In Nepal, although many intellectuals believe that the present socioeconomic structure is built on oppression and exploitation of people, they want to preserve the present structure because it gives them prestige and wealth. The people of this structure because it gives them prestige and wealth. The people of this culture are affluent and wealthy, and their position will be threatened if poor people are allowed to participate equally with them.

The Nepali caste system is, in fact, defined in terms of endogameity, where certain peoples are allowed to conduct only certain types of work. The Brahmanical values are deeply embedded in the total way of life of the people. This has invariably led towards the process of sanskritization and Hinduization, giving more orthodox, stratified caste hierarchical values, even for those who were originally outside the caste hierarchy. These deeply held sociocultural values inhibit cohesion within and between groups and encourage poverty.

A third dimension of the persisting low Living Standard in Nepal is the lack of sincerity in government programs. Many of the government's village development programs, including land reform, do not improve the socioeconomic condition of the poor because it is not committed to the programs.

SUGGESTIONS:

• The government should make policy for the control of growing corruption.

- The government policy should be directed towards improving the capability of human resources.
- The policy should be made to attract foreign direct investment for the utilization of available huge amount of water resources, which have impact on different sector (agriculture, power generation, etc...). For this, the attraction should be towards small dam projects, the cost of which is relatively less than that of large dam projects.
- Efforts should be made to improve the basic infrastructure that help the tourism sector, which is the major sector for the foreign exchange earnings of the country.
- It is necessary to properly understand the nature of rural Living Standard so that a realistic program to help the poor can be devised. The vital information needed in understanding the rural low Living Standard situation in Nepal has been discussed in this paper. In addition, the views of the poor families must be obtained. This will provide an in-depth understanding of the economic conditions and the sociocultural values of the rural people.
- A serious anthropological study should be undertaken to find out the inadequacies of development projects aimed at reducing rural poverty.
 Though these projects were aimed at helping the overall conditions of the rural poor, they did not reach the poor. Why?
- The assumption that the poverty must be studied exclusively with reference to the condition of the poor themselves is false. In the context of Nepal, a

research proposal to study the "rich" is desirable because it gives an understanding as to why other Nepalese are poor. It is necessary to look at the sociology of the rich to grasp their culture and way of life, and also how they become rich. This is immensely difficult because it is the rich who supply funds to study the poor.

- Poverty is a microphenomenon as well. To this extent, its solution is
 possible only through microlevel planning. Microlevel planning will be
 effective only if the program of government decentralization is effectively
 carried out.
- Reaching the Unreached through Public services;
- From digital divide to digital opportunities for sustainable development and economic growth at grassroots level;
- Sustainable development of SMEs-Reducing spatial disparities and enhancing opportunities for employement and development;
- Fostering agricultural growth, poverty reduction and sustainable resources use;
- Sustainable Development and Earthcare Policies in the areas of: Water, Energy, Education, Health, Agriculture and Rural development, and Biodiversity;
- Village cluster development through sustainable societies in a Viable Rural Space;
- Grassroots level Governance;

- Moving towards "ONE INDIA" to usher in a remarkable change in the life of the common man;
- Poor to be the real target of secular public policies;
- Why not give a choice to the potential NREG Candidate-to go for the employment guarantee or sign up for the skill initiative?
- Promote Yeshasvini under the NREG Scheme;
- Improve governance, education and healthcare through ICT;
- Broadband services over a technology neutral platform in rural and remote areas;
- Dairy Cooperatives in every village for procurement of milk to enable the farmers to enhance their income;
- Rural electrification through renewable sources.
- Greating the right Human resources to reach heights in food processing;
- Digital Network Farmers (AGRISNET, AGMARKNET, AgRIS, eCooperatives, Digital SMEs, etc.)
- Mainstreaming ICT for Grassroots level Planning for economic and social Development (DISNIC).

Thus, with the help of good governance, if the foreign assistance can be utilized effectively in these three sectors (Human Resources, Water Resources, and Tourism), there is a possibility to bring the Nepalese economy to the path of development.

Several important new schemes for social uplift and poverty alleviation have been launched in India during recent reform years, including EAS for providing 100 days of unskilled manual labour to the rural poor, PMRY which is aimed at providing work for unemployed youth through the creation of microcenterprises, NSAP which encompasses old age pensions, family benefits in case of death of the family breadwinner and maternity benefits, the Rural Group Life Insurance Scheme with a subsidized premium, the National Programme of Notional Support to Primary Education (also known as the Mid-Day Meal Scheme) aimed at providing notorious meals to children in primary school, the Mahila Samridhi Yojana to promote the savings habit among rural women.

The weaker sections, especially scheduled castes/scheduled tribes and women, have been given importance in special programmes on poverty alleviation and employment as well as in several other programmes. The Public Distribution System (PDS) was recently streamlined in order to target the poorer sections of the population.

The progress of economic reforms in India since 1991 the emphasis on poverty alleviation programmes has not diminished. Government intervention has continued in all rural development and welfare programmes. The revised development strategy lays greater emphasis on providing employment opportunities to the rural poor. EAS is now being extended all over the country. The other anti-poverty programmes has also been restructured to equip them to achieve their objective of poverty alleviation. Several government programmes are aimed at strengthening the rural markets to make agricultural produce more economic for the benefit of the rural poor.

The government has also continued to provide institutional security for the rural poor. Investment in agro-forestry and export orientation of agriculture produce will also lead to improvement in the rural areas. The rural credit institutions have continued to receive support and have been further strengthened.

Efforts have also been intensified to strengthen the grass-roots level democratic institutions. The seventy-third amendment of the Constitution has now received constitutional sanction for the village panchayat institutions. Panchayats are being formed in all States and powers are being delegated to them. These institutions will now have control of all rural development programmes. The policies of the Government of India are to encourage the growth of non-governmental organizations (NGOs). Their participation is generally encouraged as a matter of strategy in all rural development programmes. The government has taken several steps to strengthen the safety net for the rural poor. JRY, PMRY, NSAP, the Mid-Day Meal Programme, the Indira Awas Yojana, PDS and a number of other programmes now provide a reasonable safety net for the weakest sections of Indian society. The basic minimum services identified for priority are steps in that direction.

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PREFACE

Standard economic growth theory focuses on the development of per capita income, output or productivity levels over time. One of the central questions in the growth literature is whether these per capita variables tend to converge across economic, that is, whether poor countries tend to catch up with rich ones. The basis assumption of such analyses is that per capita income levels are a good proxy for living standards and that convergence in income would indicate convergence in living standards, In fact, there are economists who use the terms 'per capita income' and 'living standards' interchangeably, see for example Mankiw, Romer and Weil (1992). However, several authors, in particular Sen (1985, 1987), Khan (1991) and Dasgupta (1990, 1993), have argued that the standard of living is a multidimensional concept and that income alone cannot be an adequate measure of a person's well-being.

Nepal is a developing land-locked country with diverse cultural and ethnic identity. It covers an area of 147181 sq. Km. with an average width and length of 193 Km. and 885 Km. respectively. It lies between two giant nations China and India. Nepal is divided into three diverse ecological zones; the Tarai (the plain), the Hills and the Mountain with distinct resources, opportunities and problems. Administratively, the country divided into 5 development region, 14 zones, 75 districts, 3915 village development committees and 58 municipalities. It is a multi caste, multi-religious and multi ethnic country. Broadly, Nepalese society is the composite form of Aryan and Mongolian People from its beginning. Economically, it has low human development. Unfortunately, latest development indicators are not satisfactory in comparison to other South Asian Countries. However, efforts of modern development have been continuing since 1956 through national planning. Politically, it is on the restructuring process of the state in the nature of republic federation. The population increased by nearly 18.5 million in 1991 to 23.1 million in 2001 with annual growth rate of 2.25 percent. Out of total land of Nepal about 77 percent is covered by mountains and hills. Topography of nation is one of important factors when considering overall development efforts. Development of Nepal has been affecting due to the unfavorable geographical setting. The population in urban areas is 14.2 percent of

the total population in 2001. Majority of population is still live in rural areas with economically vulnerable life. Data shows that concentration of mass poverty is in the rural areas. Most village homes are empty of youth people. Old and sick parents and dependent children with women are facing social and economic problem due to the absence of their youth in the community. Most of the rural youth have been migrated to the mainly Arab countries and Malaysia increasingly for livelihood with very low salary due to the low level of skill and weak diplomatic relations between the countries. The total number permitted to go foreign employment by the government of Nepal till the April 2007 is 9,70,824. This is not good message for us those who want sustainable, prosperous and independent Nepal. Country's 80 percent people are into agriculture. But they have no minimum access on irrigation, often they are depend upon rain, locally called blessing of Lord Indra of water. Nepalese rural people are poor due to the lack of access to resources, low productivity, and land roads to obtain agricultural inputs and to sell agricultural produce.

Thus, with the help of good governance, if the foreign assistance can be utilized effectively in these three sectors (Human Resources, Water Resources, and Tourism), there is a possibility to bring the Nepalese economy to the path of development.

Several important new schemes for social uplift and poverty alleviation have been launched in India during recent reform years, including EAS for providing 100 days of unskilled manual labour to the rural poor, PMRY which is aimed at providing work for unemployed youth through the creation of microcenterprises, NSAP which encompasses old age pensions, family benefits in case of death of the family breadwinner and maternity benefits, the Rural Group Life Insurance Scheme with a subsidized premium, the National Programme of National Support to Primary Education (also known as the Mid-Day Meal Scheme) aimed at providing notorious meals to children in primary school, the Mahila Samridhi Yojana to promote the savings habit among rural women.

The weaker sections, especially scheduled castes/scheduled tribes and women, have been given importance in special programmes of poverty alleviation and employment as well as in several other programmes. The public Distribution System (PDS) was recently streamlined in order to target the poorer sections of the population.

The progress of economic reforms in India since 1991 the emphasis on poverty alleviation programmes has not diminished. Government intervention has continued in all rural development and welfare programmes. The revised development strategy lays greater emphasis on providing employment opportunities to the rural poor. EAS is now being extended all over the country. The other anti-poverty programmes has also been restructured to equip them to achieve their objective of proverty alleviation. Several government programmes are aimed at strengthening the rural markets to make agricultural produce more economic for the benefit of the rural poor.

The government has also continued to provide institutional security for the rural poor. Investment in agro-forestry and export orientation of agriculture produce will also lead to improvement in the rural areas. The rural credit institutions have continued to receive support and have been further strengthened.

Efforts have also been intensified to strengthen the grass-roots level democratic institutions. The seventy-third amendment of the Constitution has now received constitutional sanction for the village panchayat institutions. Panchayats are being formed in all states and powers are being delegated to them. These institutions will now have control of all rural development programmes. The policies of the Government of India are to encourage the growth of non-governmental organizations (NGOs). Their participation is generally encouraged as a matter of strategy in all rural development programmes. The government has taken several steps to strengthen the safety net for the rural poor. JRY, PMRY, NSAP, the Mid-Day Meal Programme, the Indira Awas Yojana, PDS and a number of other programmes now provide a reasonable safety net for the weakest sections of Indian society. The basic minimum services indentified for priority are steps in that direction.

(BARUN KUMAR LAL)

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CHAPTER – 1 INTRODUCTION

INTRODUCTION

Standard economic growth theory focuses on the development of per capita income, output or productivity levels over time. One of the central questions in the growth literature is whether these per capita variables tend to converge across economic, that is, whether poor countries tend to catch up with rich ones. The basic assumption of such analyses is that per capita income levels are a good proxy for living standards and that convergence in income would indicate convergence in living standards. In fact, there are economists who use the terms 'per capita income' and 'living standards' interchangeably, see for example Mankiw, Romer and Weil (1992). However, several authors, in particular Sen (1985, 1987), Khan (1991) and Dasgupta (1990, 1993), have argued that the standard of living is a multidimensional concept and that income alone cannot be an adequate measure of a person's well-being.

Nepal is a developing land -locked country with diverse cultural and ethnic identity. It covers an area of 147181 sq. Km. with an average width and length of 193 Km. and 885 Km respectively. It lies between two giant nations China and India. Nepal is divided into three diverse ecological zones; the Tarai (the plain), the Hills and the Mountain with distinct resources, opportunities and problems. Administratively, the country divided into 5 development region, 14 zones, 75 districts, 3915 village development committees and 58 municipalities. It is a multi

caste, multi-religious and multi ethnic country. Broadly, Nepalese society is the composite form of Aryan and Mongolian People from its beginning. Economically, it has low human development. Unfortunately, latest development indicators are not satisfactory in comparison to other South Asian Countries. However, efforts of modern development have been continuing since 1956 through national planning. Politically, it is on the restructuring process of the state in the nature of republic federation. The population increased by nearly 18.5 million in 1991 to 23.1 million in 2001 with annual growth rate of 2.25 percent. Out of total land of Nepal about 77 percent is covered by mountains and hills. Topography of nation is one of important factors when considering overall development efforts. Development of Nepal has been affecting due to the unfavorable geographical setting. The population in urban areas is 14.2 percent of the total population in 2001. Majority of population is still live in rural areas with economically vulnerable life. Data shows that concentration of mass poverty is in the rural areas. Most village homes are empty of youth people. Old and sick parents and dependent children with women are facing social and economic problem due to the absence of their youth in the community. Most of the rural youth have been migrated to the mainly Arab countries and Malaysia increasingly for livelihood with very low salary due to the low level of skill and weak diplomatic relations between the countries. The total number permitted to go foreign employment by the government of Nepal till the April 2007 is 9,70,824. This is not good message for us those who want sustainable, prosperous and independent Nepal. Country's 80 percent people are into agriculture. But they have no minimum access on irrigation, often they are depend upon rain, locally called blessing of Lord Indra for water. Nepalese rural people are poor due to the lack of

access to resources, low productivity, and land roads to obtain agricultural inputs and to sell agricultural produce.

Living Standard of Rural People:

Human beings are born with certain potential capabilities. Therefore human society has been changing continuously from the very beginning of human history. Definition and understanding of development depends on perception of people which is related to particular philosophical orientation and individual experiences and expectations. We shouldn't forget development must be related to quality of life with independent achievement. Every people of every one want to be free him/her from servitude. They want to live with self-respect, self-identity and self-dignity. Therefore, development is not only an economic issue but also social, cultural and political realization.

Rural development is a strategy to enable a specific group of people. It involves helping the poorest among those who seek a livelihood in the rural area to demand and control more of the benefits of rural development. The group includes small scale farmers, tenants, and the landless. Rural development is a complex phenomenon involving and interaction of economic, social, political and cultural factors. It is a multidisciplinary process of development which seeks transformation of the society from traditional to modern nature. The concept of rural development is a process of development and change to improve rural social life. The goal of rural development can not be achieved without available infrastructural development, commercialization of agriculture, proper utilization and mobilization of resources and inclusive social development. The term rural development connotes over all development of rural areas with a view to improve the quality of life of rural people (Singh, 1999: 20). Theoretically, rural

development seeks to alleviate poverty, mass utilization of resources, commercialization of agriculture, food security, creating opportunities, infrastructural development of rural community and modernization of overall society. Similarly, World Bank has defined of rural development as strategy designed to improve the socio-economic life of rural poor, as such it involves extending the benefits of development to poorest in rural areas e.g. small farmers, tenants, landless and other disadvantage group. Process of rural development at least should be concerned on physical and social infrastructure, livelihood opportunities, economic activities related to rural community, environmental vulnerability, demographic change, food security, house and land, social adjustment, empowerment and development of social capabilities and inclusion.

Process of Living Standard Development in Nepal:

Process of modern development in Nepal has been started after 1950 when family based political system called 'Rana Rule' ended and country has entered into the democratic system by the influence of people's movement and political influence of out world. Development planning was started in the country in 1955-56 to bring about systematic change in the underdeveloped socio-economic condition. Tenth Plans have already been completed and interim three years plan is running at present. We could not get satisfactory output in the history of overall process of planning and development in Nepal due to the unstable political economy and center oriented development mechanisms.

Government of Nepal has tried to adopt rural development approach for the development of rural areas after 1950s by the integrated rural development program. Obviously, efforts of rural development in Nepal has a few achievements as compared to its inputs. Most of the integrated rural development program in

Nepal has faced problems because of irrelevant program to the target groups and lack of proper evaluation and monitoring system.

Different rural development programs have been conducted after 1951. The first rural development program in Nepal was Tribhuvan Village Development Program which was mainly focused on the development of agriculture, road, drinking water, education and health. Development programs in rural community by the initiation of Block Development Officer. Panchayet Development Program was objective for development and change. They were institutional development, social mobilization and attitudinal change.

Similarly, different integrated rural development programs have been conducted since the decade of 1970s and continued later giving priority on saving, road, training, health, agriculture, rural industry, nutrition etc. Experiments on the rural development in Nepal started since 1956 but its impacts are debatable. It is difficult to isolate benefits achieved through rural development program only, the role of local institutions have not been able to take initiative and generates resources. Different rural development programs like Rural Infrastructure Work, Rural Infrastructure Development Programs, Agricultural Road Program, rural access Program, District Road Support Program Poverty Alleviation Project, Remote and Specific Area Development Program, Periodic District Development Plan have been implemented in the Ninth five Year plan for the development of rural sector specifically. Output of rural development or local development does not seem satisfactory due to the inability to prioritize project to rural development, lack of political consensus to the local development, no feasibility study on the rural development program and absence of local bodies. However, rural community Infrastructure Work implemented in additional 15 districts, 47 District

Development Committees have prepared District Transport Master Plan, different suspension bridges have been constructed in the rural sector, different poverty alleviation project implemented in eight Tarai district of Western Nepal in the ninth Plan.

The objective of Tenth Plan for local development was to minimize poverty by making available local people, particularly the people of socially and economically backward areas, caste, nationalities groups an access to services and benefits made locally available. During the Tenth Plan, local development programs like local body strengthen program, policy and institutional reform programs, financial resource management program, human resource development program, local infrastructure development program, economically backward areas and people's upliftment and development program, social mobilization and self-employment program, integrated reproductive health and population education program have been implemented.

The goal of rural development is to eradicate poverty. However, only a few targets of the Tenth Plan have been achieved during the period of 2003-2007. Currently, interim plan has been implementing at the end of 2007. Major objectives of this plan are to reduce poverty, unemployment and inequality for social and economic transformation. It focuses on target program to the marginalized people, social mobilization, infrastructure development, strengthening to local bodies, regional development, reconstructing local infrastructure, and reformation of local governance for rural development and change.

Indicators of Rural Development in Nepal:

Level or rural development in Nepal is low in comparison to urban indicators. People of rural areas have low access on education, health, communication, electricity, road etc. similarly, Dalit, women, marginal ethnic groups, Madhesi people of remote area and disable people have very low access on basic human requirements. Unequal poverty index between the rural and urban areas in exemplified in here.

Table: 1

Poverty measurement (1996 and 2005)

Area	Population below of the poverty line		Pover	ty gap	Severity of Poverty		
	1996	2003	1996	2003	1996	2003	
Urban	21.55	9.55	6.54	2.18	2.65	0.71	
Rural	43.27	34.62	12.14	8.50	4.83	3.05	
Nepal	41.76	30.84	11.75	7.55	4.67	2.60	

Source: Economic Survey, 2007.

Facts in Table show the decreasing trend of poverty in Nepal. However, decreasing trend seems unequal in rural and urban areas during ten years time period. Does it mean irrelevance development programs were conducted particularly in rural areas? Or was it the result of unstable, irresponsible and dominated political economy in the process of development history of Nepal? It should be evaluated by the independent agencies. I think cause of

underdevelopment of the rural areas is not only the result of present phenomena but also the nature of political economy of Nepal.

As pointed out in the Tenth five year plan (2002-2007), the progress in Human Development Indicators (HDI) is rapid as compared that of per capita of Nepal. The achievements made in extension and development of education, health and drinking water have clearly surpassed the economic growth rate. There are noticeable differences among the urban and rural areas which are given in here.

Table : 2

HDI of rural and urban region 1990 and 2000

Region	Adult Literacy rate (above 15 years)		Life Expectancy (years) at birth		Population having safe drinking		HDI	
	1006	2000	1006	2000	water		1006	2000
	1996	2000	1996	2000	1996	2000	1996	2000
Urban	63.5	69	55	71.1	62	93.3	0.518	0.616
Rural	34.5	48	55.7	58.7	61	78.1	0.306	0.466
Nepal	36.7	50.7	55	59.5	61	79.9	0.325	0.466

Source: Nepal Human Development Report 1998 and 2000.

The indicators in table prove that level of human development in urban areas is higher. Similarly, major indicators of human development are not concentrated equally between caste and ethnic groups or male and female or deprived groups like Dalits, Madhesi and other marginal sector of community.

 $\label{eq:Table:3} \textbf{Major Indicators of Development in Nepal}$

	major indicators of Developmen	T	T 1		
SL.	Major Indicators of Development	Status of 2007	Target up to		
			Interim Plan		
1.	Annual Economic growth rate (%)	2.5	5.5		
2.	Agriculture (%)	0.7	3.6		
3.	Non-agriculture(%)	3.6	6.5		
4.	Population below poverty line(%)	31	24		
5.	Employment growth rate	3.0	3.5		
6.	Human Development Index (HDI)	0.534	0.570		
7.	Gender Development Index (GDI)	0.520	0.556		
8.	Literacy above (6) years(%)	63	76		
9.	Population with electricity (%)	48.5	58.5		
10.	Population with basic drinking water(%)	77	85		
11.	District connected with road network	63	75		
12.	Population with NTV(%)	80	100		
13.	Population with internet services in district	59	-		
14.	Population with sanitation (%)	46	60		
15.	Irrigation (hectors)	11,68,144	12,63,824		
16.	Population with electricity services	48.5	58.5		

Source: Tenth Plan (2002-2007), Interim Plan (2007-2010).

National indicators of development are unable to represent the distribution pattern of development of different social groups and regions. For example, population below the poverty line of Dalits, hill ethnic groups and Muslims are 46%, 44% and 41% respectively. At the same time, facts in table no 3 show that 45.2% of people from Himali region, 41.8% of people from Hill region and 37.4% of people from Tarai region are out of access on consumption of minimum level of calories. Similarly, marginal section and disadvantage group have very low access on social and development.

Without committed development efforts through high level political consensus on the basis of concentration of poverty with diverse nature in the different communities, it will be very difficult to escape people from vicious circle of poverty. Development and underdevelopment of Nepal is still being national issues and discourse due to the low access on education, opportunities, social security, health, infrastructural development and productivity of the different communities with momentous disparities. The gap between rural and urban areas should be controlled to attain national goal of development. We always want socially justiceable, equitable, prosperous, self-respected, independent Nepali citizen. Government should provide high priority on rural development legally and morally in the process of planning and development in Nepal where huge volume of population is concentrated, political commitment with consensus between the parties is essential to build prosperous and independent Nepal. It is only the way of sustainable rural development which will be fruitful to reduce poverty. Participatory model of development is fruitful to maintain sustainable development in the country.

Indeed, Nepal is an underdeveloped country in South Asian region. The rate of population below the poverty line is in decreasing trend. Unfortunately,

equal distribution of development is difficult in terms of its social, regional and cultural diversity. To improve entire socio-economic condition of rural people, we have to change trickle down model of development which in practice since 1956. we have to try development honestly through decentralization and multidisciplinary approaches in which every section of population or community can be involved in their own development process. Without commercialization of agriculture no one can hope rural development properly. Eighty percent of Nepalese people depend on subsistence agriculture. I think enabling local development can best support to infrastructural development concerning to the rural areas. It is essential to identify patterns of poverty, inequality, exclusion and vulnerability of the rural sector or rural community to prepare proper development plan for rural development and change in Nepal.

Nepal is a small landlocked country about 500 miles long and 100 miles wide and it has population of around 25.3 million with the growth rate of 2.37 percent per annum. It is located in the Himalayan Mountains and bordered by China in the north and India in the south, east and west. With the per capita income of US\$220, Nepal is one of the least developed nations in the world. Infant mortality rates are among the highest in the world and life expectancy at birth among the lowest. Half of the population lives below the absolute poverty line. Additionally, the country's lack of infrastructure, such as transport and communication, has severely limited its economic opportunities. Historically Nepal has relied heavily on foreign aid for development. Finally, as Nepal is a landlocked nation with a small domestic market, and limited natural resources, it must have been relied on its neighbor, India, for any international market opportunities.

Despite the planned development efforts during last five decades, Nepal has not been able to improve economic condition as shown by its macroeconomic indicators. Looking at the macroeconomic issues, the government must consider strategies for reducing poverty and raising living standard. In addition to the equity considerations, the barriers faced by women and the poor limit their ability to provide the basic needs of their families. For this the government must try to utilize its own resources, human as well as natural, in order to raise the standard of living of the Nepalese people. There are various sectors, in which the government must draw its intention in order to bring the economy to the path of development.

Agriculture is the backbone of the Nepalese economy, means of livelihood for majority of the population and the main source of gross domestic production, income and employment generation. It, therefore, rightly deserves the top most priority because the economy is still caught up in the initial stage of its development where the income generated through industrial sector as well as internal market expansion from non-agriculture sector depends upon the development of agriculture sector. The agriculture sector in Nepal contributes 41 percent of the GDP and employs and estimated 81.2 percent of labour. As the majority of the population depends totally on agriculture, it is the key to the economic development of Nepal. In order to achieve the goals of improving the lives of the people in Nepal, significant investment in irrigation, fertilizers, diversifying crops, forest management, and expanding rural infrastructure are needed.

Nepal has over has over 6,000 rivers and streams and tributaries. Based on annual run-off of rivers the theoretical hydropower of Nepal is estimated to be about 83,000MW, which is one of the largest potential in the world. Sites, which are technically feasible for development, could yield an estimated 44,000MW of

installed capacity and about 95% of this could, based on the experience of the past evaluations, be expected to be economically viable. However, Nepal has so far been able to utilize only a small fraction of this potential resource. Till now only 261.918MW (0.3% of the total potential) have been installed. At present electric power supply is available to only 15 percent of the population. A large amount of power produced in Nepal can be easily exported to neighboring countries. In addition to power generation, some of the identified projects can bring enormous benefits in terms of irrigation, flood control and inland navigation, beyond the Nepalese territory.

Nepal has been a tourists' paradise for many years. As a country of amazing attractions, both natural and man-made, it offers a memorable experience for every visitor. Nepal is the home to the world's highest mountains, including Mt. Everest (8848m). Enchantment is everywhere, be it on the shoulders of high snow-fed mountains, or terraced farmlands scrupulously carved like stairways on the hillsides, or cascading mountain rivulets and rushing rivers, or in forests full of wildlife, flowers and bird song. The total foreign exchange earning from this sector in the fiscal year 1998/99 was equivalent to Rs.12,167.8 million, which was 15.9 percent of the total foreign exchange earnings. Nepal, a beautiful Himalayan kingdom, can create tourist magnetic atmosphere if the government as well as private sector take initiative in constructing more tourism infrastructure development.

In addition to the Water Resources, Nepal has a huge potential of Human Resources, which, if utilized effectively, can be the major factor for the development of Nepal. The national human development index (HDI) for Nepal, computed as an un-weighted average of values achieved in level of living, knowledge and health, is 0.378. the absolute value of Nepal's HDI is only 45

percent of the global HDI. Within the South Asian region, all countries, with the exception of Bhutan and Bangladesh, enjoy a higher HDI than Nepal. Average life expectancy, within the last two decades, has increased by 13.5 years. However, average life expectancy is only 55 years. Infant mortality, while decreasing by approximately eight percent annually within the last two decades, nonetheless, claims one out of every 10 births. Infants in the rural areas are exposed to 1.6 times the risk of death compared to those in the urban areas. Incidence of maternal mortality is one of the highest in the world. Literacy rate has been increasing very slowly in Nepal. The current national literacy ratio is 40 percent. Only about 72 percent of the 2.7 million 6-10 years-old children are enrolled in school. Gross enrollment in primary schools, however, nearly doubled from 1.75 million in 1884 to 3.26 million in 2006. The number of primary school teachers nearly doubled between 1984 and 2006. Rates of repetition and dropout are very high even at the primary level. Only 10 percent of all the children enrolled in grade one complete primary school without repeating any grade. The economy is overwhelmingly rural and agriculture-based. The rate of growth of the working-age population is high at 3 percent/year. Work participation starts at an early age. More than fourfifths of the workers/laborers are engaged in the low productivity agricultural sector. The service sector accounts for one-sixth of the work force. Only a small proportion of the workers are engaged in industry, of which two-thirds are in manufacturing. Unemployment rate is high at 14 percent. The scale of underemployment is higher still: approximately one-half of the total labour force works for less than 40 hours a week. Seasonal and long-term movement of labor is large is scale and has grown further within the last decade. While the landless, the highly indebted an members of the "low-caste groups" appear to migrate in larger proportions, even the relatively well-off individuals and households join the ranks of the labour migrants. The scale of international (principally India-Nepal) labor

movement also appears to have increased within the last decade. The inflow of laborers from India, who are engaged in various sectors, e.g., agriculture, industry, construction and informal sector trade, is also adversely and significantly affecting the employment opportunity of Nepalese laborers. The regime of child labor is relatively large in scale, despite a significant drop during 1981-2001.

During the Rana period before 1950, Nepal was not interested in foreign aid, as it was viewed as an intrusion. However, since the 1950s, Nepal has opened up to foreigners recognized the possible benefits of modern technology. The government began to accept foreign aid, and since then Nepal has continued to become increasingly more and more dependent on it. Foreign aid inflow into the country has steadily increased and aid in the form of loans is much larger than grants. In the fiscal year 1998/99, 73.2% of the total aid was in the form of loans. Foreign debt is rapidly accumulating and in the fiscal year 1998/99, Nepal's outstanding external debt reached 49.4% of the GDP. It has been argued by many economists that while Nepal has been receiving foreign aid for more than 40 years, they have not succeeded in alleviating poverty as is indicated by their economic indicators.

Indeed, the central constraint on Nepal's development over the last few decades has not been the scarcity of financial resources, but the lack of effective governance and well functioning institutions, which can adequately perform the vital state functions that are essential for a sound economic and social development process. There are many manifestations of the governance problem in Nepal, including weak institutions and procedures, lack of ownership of development projects and programs, lack of accountability and mismanagement of resources, failure to provide effective delivery of public services, including law

and order, and the absence of a well-functioning judicial system, all of which are reflected in increased corruption.

Nepal's social, financial, and political conditions prevent it from improving its macroeconomic condition, yet it is apparent that something must be done to take the economy to the path of development. If policies were implemented to restrict immediate focus on water resources and human resources development together with good governance, Nepal would benefit by improving its economic and social conditions. Such focus would give time for its newly democratic government to stabilize, to work on improving relations with India, and to begin to rely less on foreign aid. Hence, for the development of Nepal, the policy of the government of Nepal should be towards improving the agriculture and power generation sector as well as basic infrastructure including transport and communication.

- The government should make policy for control of growing corruption.
- The government policy should be directed towards improving the capability of human resources.
- The policy should be made to attract foreign direct investment for the utilization of available huge amount of water resources, which have impact on different sectors (agriculture, power generation, etc.). For this, the attraction should be towards small dam projects, the cost of which is relatively less than that of large dam projects.
- Efforts should be made to improve the basic infrastructure that help the tourism sector, which is the major sector for the foreign exchange earnings of the country.

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Thus, with the help of good governance, if the foreign assistance can be utilized effectively in these three sectors, there is a possibility to bring the Nepalese economy to the path of development.

Nepal is a developing country with its low per capita GDP of USD 320. Four-fifth of its land form comprises of hills and mountains and 80 percent of its population live in the rural areas. Thirty percent of the people live below the poverty line and 45% of the population are unable to read and write. The rural areas lack minimum physical facilities. The major challenge for Government of Nepal is to provide adequate infrastructure to these remote and scattered settlements.

Infra structure development in Nepal started during 1050 and until then Nepal had no infrastructure linkages to the rest of the world. Since then, the government has been making efforts to provide increased access to education, transportation, communication, health services, electricity and other infrastructure services. Despite these efforts Nepal remains one of the poorest countries with poverty reduction as the major challenge. One of the most dominant challenges of Nepal is to develop the basic infrastructures to accelerate its pace of development. For this, transportation plays a vital role in the overall development and socioeconomic transformation of a country. In Nepal, road transport has predominant role because it is the only means for public transportation except the limited air service to some part of the country which is not affordable to common people. Therefore, Road Infrastructure serves as a backbone for an overall socio-economic development of Nepal. Negligible length of Railways available in Nepal has diminished surprisingly in the last 4 decades. Janakpur Jainagar Railway which is a narrow gauge in poor condition is the only railway facility in Nepal. Since the overall development of Nepal is pivoted around Infrastructure development focused at road transport and aimed at poverty reduction, Government of Nepal has its priority in this sub-sector.

Objectives of the Study:

Nepal has a population of about 23.5 million and occupies 147, 181 km2 of land. It is distributed into three ecological zones-Mountains, hills and Tarai, and five development regions: Eastern, Central, Western, Mid Western, and Far Western. Nepal is renowned for its sociocultural diversity of 100 ethnicities, 92 languages, and 9 religions. Agriculture is the mainstay of Nepal's economy, employing about 76.5% of the workforce and contributes 39.2% of GDP (CBS, 2002). Only about 25 percent of the total area is cultivable, another 33 percent is forested and most of the rest is mountainous. The lowland Tarai region produces and agricultural surplus, part of which supplies the food-deficient hill and mountain areas.

More than nine million people, accounting for about 40 percent of the population, are currently estimated to live below the national poverty line, set approximately at 4,400 Nepalese Rupees (NRs) per capita per annum, the sum based on caloric intake, housing and various non-food consumer's goods. However, inequalities across ecological zones, development regions, and the rural-urban divide remain wide, as do those across gender, ethnic, and caste lines. Economic growth has been almost exclusively in urban areas, while the rural economy, particularly in the hill and mountainous regions, has been virtually stagnant. The incidence of poverty and food insecurity in the mid and far western development regions and in the mountain districts greatly exceeds the national average. Subsistence, mixed smallholder agriculture is the dominant farming system in all ecological zones of Nepal. About 45 percent of the farmers are smallholders operating less than 0.5 ha of land. There is an uneven distribution of

the agricultural land in the county. Small farmers operated only 13 percent of total agricultural land while larger farmers (> 2 has) constituting only 8% are holding 32 percent of the total agriculture land. Hence, the development of smallholder's mixed farming is important to enhance the food and livelihood security of the population.

The government statistics on food balance shows even when Nepal's total production of edible cereal-grains exceeded the net requirements, and 45 of the 75 districts in Nepal are incapable of producing food to meet minimum requirements (CBS, 2003). Most of the districts, which are under the food deficit, lie in the hill and mountainous regions. The average amount of food deficit is 47 kg per capita in the mountains and 32 kg in the hills. This is truer for far western and mid western development regions. Even in years of adequate rainfall and good harvest the people in these areas remain in need of food assistance and consume less than the requirement. However, even under such circumstances, we can easily find the households with ample of food surplus from their productions residing as neighbors to food insecure households. These two groups of households shares common climatic and weather situation, largely similar soil types and land topography. They also share common socio-culture. Yet, one faces food crisis and becomes food insecure, while the other remains food secure. So far, there has been no any research conducted in this area regarding the intensity of food insecurity and coping strategies. Hence, carrying out such in-depth research and quantitative as well as qualitative findings would obviously have both basic (academic) and applied (practical) implications.

Household's Entitlement Endowments: In this study the household is recognized as basic unit of analysis which includes more than one individual (although a single individual can also constitute a household), who share economic

activities necessary for the survival of the household and for the generation of well-being for its members. Although household members have varying aims and objectives as well as individual goals, they also share a common concern for the well being of each other. Rudie's definition of household is adopted for this study because of its emphasis on provision for primary needs and joint management of resources. Therefore food security management in the household level is a kind of generation of well being for all members in the household. Sen (1981) defines ownership relation as a kind of 'entitlement' relations, which connects one set of ownerships to another through certain rules of legitimacy. Endowments are defined as the stock of different forms of capital (physical, natural, human financial and social-initial resource bundle) that an agent possesses. Generally head of a household controls the land, livestock, physical assets and financial capital. Human and social capitals may differ according to the household members. Natural capitals are provided by nature itself and it's efficient use depends on availability and capacity of the household members. Therefore, in the household level entitlement endowment is the summation of all capital-initial resource bundle - possessed by all household members.

Transforming Structures and processes: through policies and planning approach (processes), governmental and non-governmental organizations, market institutions, community organizations and private sectors, all transforming structures, acts in the community to facilitate the entitlement changers (households) to change their initial resource bundle to food and income through resource allocation. Household's decision to allocate initial resource bundle is influenced by the policies and plans of transforming structures acting in that community. Institutions may focus on development of policies and regulations,

service provision or research, and may represent civil society, the public and private sectors.

Livelihood Strategies: The interaction between household's entitlement endowment, transforming structures and processes determine the livelihood strategies or activities set by the particular household. Broadly, household members in rural area engage in two kinds of activities, natural resources based (farming and forest resource use) and non-natural resource based (wage laboring in off-farm sectors and engaging in professional jobs.). Household's resource endowment and its allocation in different activities jointly support their level of well being of the household in general and food security I particular.

Production, income and consumption: Food security management is a subset of the livelihood, which is most important for every rural household. Both natural resource based and non-natural resource based strategies adopted by the household determines the availability of and access to food. Availability generally refers to production and physical availability of food in a given area. Access refers to economic access to food, i.e. the purchasing power of the people concerned, physical availability in the community of food and access to it. At the household level, the gap between consumption and demand of food, based on requirements of all the household members, indicates the food insecurity condition of the household. This research assumes households as a rationally behaving unit (like rational individual) so that all the food available for the household is distributed rationally based on requirements of the different members.

Vulnerability to Food Insecurity: Vulnerability always begins with a notion of risk. Risk is characterized by a known probability distribution of events. The risk of shortfall can be expressed as a probability statement regarding the failure to attain a certain well-being threshold in the future. Therefore, vulnerability to food

insecurity indicates probability of failure to attain a certain threshold level of nutritional requirement for healthy life in the future. In the household level, less land ownership, high wage labour dependency, drought /water scarcity, land degradation, loss of off-farm jobs, poor technology, indebtedness, social insecurity, product price fluctuation etc. are the main risk factors. One important aspect of being food insecure is a high level of exposure to risk of adverse events and lack of the means to cope with them. Food deficit risk coping measures are household's reactive response to a stressful situation. These are also ex ante and ex post response to manage household food deficit. The ex ante measures help to improve food availability and access to food through own production and income diversification. On the other hand, when households are faced with the decline of food availability, they can adjust food deficit through ex post responses like borrowing food, collection of wild foods, sale of agriculture and livestock products etc.

The aim of an effective food security policy is to ensure that all households have an adequate dietary intake and can acquire it without being subjected to excessive risks. Vulnerability to food insecurity exists mainly due to the ineffective policies and planning approach of transforming structures. It can be alleviated through supporting vulnerable people to build up their entitlement endowments and minimize the risks associated in different sectors.

This discussion of conceptual framework indicates that food insecurity is fundamentally afflicted with poor household's resource endowment and weak policies of transforming structures. In this study we have focused our discussion to the major resources amount rural households and problems they face in different aspects of livelihood due to ineffective role and weak policies of transforming

structure in study area. With analysis of field level data, we have presented the empirical evidence of prevalence, depth, and severity of food insecurity amount the rural households in the study area. No study of this nature has been done in the area so far. Hence, it is hoped that this study will contribute in understanding the Living Standard of Rural people in Nepal in detail and add another dimension in grasping the issues.

Most of the rural India is yet to accept the idea of an inclusive India. Rural India presents a baffling dichotomy of images: poverty and growing potential of rural markets.

Enhanced access to quality roads, power and water supplies remains a pipedreams, despite all the promise made by successive governments. Living condition (from kutcha houses to semi –pucca and pucca structures, from biomass to LPG for cooking, etc) in rural India seem to have been improving in recent years.

India's increasing urban-rural divide can be effectively dealt with only through the provision of urban facilities in rural areas (PURA). The UNCTAD's Worlds Investment Report (WIR), 2005 says developing countries are emerging as favoured locations for the conduct of R&D by MNCs so as to tailor, and dovetail, products and processes that would integrate local production into the MNC's global value-added systems.

Table : 4

Distribution of population by age and sex groups for development regions

						Aσe	Group (Yea	ars)					(1 010	()
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
East														
Males	6.4	6.4	6.6	5.1	3.5	3.2	2.6	2.1	2.3	1.8	1.7	2.2	4.3	48.4
Females	6.6	6.5	5.2	5.3	5.2	4.8	2.8	2.9	2.6	2.2	2.1	1.7	3.5	51.6
Total	12.9	12.9	11.8	10.5	8.7	8.0	5.4	5.0	4.9	4.1	3.9	4.0	7.8	100.0
Sex Ratio	96.9	97.6	127.0	96.3	67.3	66.3	94.9	72.7	89.0	82.2	81.8	126.4	121.5	93.7
Central														
Males	6.9	6.7	6.2	5.1	3.3	2.8	3.0	2.7	2.7	1.8	1.9	1.6	3.9	48.5
Females	6.8	6.9	6.4	5.0	4.2	3.8	3.6	3.0	2.8	2.0	2.0	1.4	3.6	51.5
Total	13.7	13.6	12.7	10.0	7.5	6.6	6.6	5.8	5.5	3.8	3.9	3.0	7.4	100.0
Sex Ratio	101.7	96.5	97.1	101.6	77.9	73.6	83.3	90.5	96.5	89.3	94.6	133.3	108.3	94.2
West														
Males	6.2	7.2	7.2	5.5	2.7	2.1	2.3	1.8	2.1	1.9	1.7	1.6	4.6	47.0
Females	5.0	7.0	6.5	5.9	4.2	3.6	3.8	2.9	2.9	2.7	2.5	1.6	4.4	53.0
Total	11.2	14.3	13.7	11.4	6.9	5.6	6.0	4.7	5.0	4.7	4.3	3.2	9.1	100.0
Sex Ratio	125.7	102.9	110.7	93.5	64.9	58.0	60.7	63.2	73.0	70.2	68.4	96.3	104.0	88.7
Mid West														
Males	7.0	7.2	6.9	4.9	3.7	3.0	2.6	3.0	1.9	2.0	1.6	1.5	2.7	47.9
Females	6.3	7.1	6.6	6.2	5.1	3.9	3.1	2.8	2.9	1.8	1.6	1.3	3.3	52.1
Total	13.3	14.3	13.6	11.0	8.8	6.9	5.7	5.9	4.8	3.8	3.2	2.8	6.0	100.0
Sex Ratio	110.4	101.1	104.4	78.8	72.0	77.3	81.6	107.2	66.7	114.5	99.5	117.9	80.0	92.1
Far West														
Males	7.7	6.7	7.7	5.5	3.1	2.7	2.5	1.8	1.8	2.3	1.2	1.0	2.8	46.8
Females	7.4	7.9	5.8	6.9	4.9	3.7	3.2	3.1	2.3	1.8	2.0	1.0	3.1	53.2
Total	15.1	14.5	13.5	12.5	8.0	6.4	5.7	4.9	4.1	4.1	3.2	2.0	6.0	100.0
Sex Ratio	103.9	84.5	132.8	80.1	62.1	71.2	77.7	58.5	80.7	122.7	61.6	103.7	91.0	88.0

Table :5

Distribution of population by age and sex groups for ecological zones

						Age	Group (Ye	ars)					(1 010	,
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Nepal														
Males	6.7	6.8	6.7	5.2	3.3	2.8	2.7	2.4	2.3	1.9	1.7	1.7	3.9	48.0
Females	6.4	6.9	6.1	5.5	4.6	4.0	3.3	2.9	2.7	2.2	2.1	1.5	3.7	52.0
Total	13.1	13.7	12.8	10.7	7.9	6.8	6.0	5.3	5.1	4.1	3.8	3.2	7.6	100.0
Sex Ratio	105.3	97.6	109.6	93.6	70.6	69.1	80.3	80.6	85.3	87.6	83.4	113.6	106.2	92.3
Mountains														
Males	7.0	6.6	6.1	4.4	3.5	2.6	2.2	2.6	2.8	2.0	1.5	2.0	4.3	47.6
Females	7.4	6.7	6.0	5.7	4.7	3.6	2.7	2.9	2.5	1.9	2.0	1.8	4.4	52.4
Total	14.4	13.3	12.1	10.1	8.2	6.2	4.9	5.5	5.4	3.9	3.5	3.8	8.7	100.0
Sex Ratio	94.4	97.9	102.0	76.2	74.4	71.0	80.2	88.9	112.4	108.7	72.9	113.3	97.8	90.8
Hills														
Males	5.9	6.3	6.8	5.5	2.9	2.7	2.5	2.5	2.3	1.8	1.7	1.5	4.2	46.8
Females	5.9	6.7	6.7	5.6	4.7	3.8	3.5	3.0	3.0	2.1	2.2	1.5	4.6	53.2
Total	11.8	13.0	13.5	11.1	7.6	6.5	6.0	5.5	5.3	4.0	3.9	3.1	8.7	100.0
Sex Ratio	100.9	94.8	101.1	99.6	62.1	71.9	73.8	81.6	76.1	86.2	75.7	100.5	91.5	87.8
Tarai														
Males	7.3	7.1	6.7	5.0	3.5	2.9	2.9	2.3	2.3	1.9	1.8	1.7	3.6	49.1
Females	6.6	7.1	5.6	5.5	4.5	4.3	3.3	2.9	2.6	2.2	2.0	1.4	2.8	50.9
Total	14.0	14.3	12.3	10.5	8.1	7.2	6.2	5.1	4.9	4.2	3.8	3.1	6.4	100.0
Sex Ratio	110.2	99.7	119.2	91.1	77.4	66.9	85.8	78.5	90.4	86.1	92.0	125.7	127.7	96.3

Table : 6
Distribution of population by age and sex groups for Urban Nepal

													(1 CICCI	10)
						Age C	roup (Year	rs)						
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Urban														
Males	4.4	5.1	5.9	6.0	4.9	3.8	3.4	3.4	3.3	2.1	1.9	1.6	4.3	49.9
Females	4.5	4.8	5.3	5.4	5.2	4.5	3.7	3.7	3.2	2.3	1.5	1.7	4.2	50.1
Total	8.9	9.9	11.2	11.4	10.1	8.2	7.1	7.1	6.5	4.4	3.4	3.3	8.5	100.0
Sex Ratio	99.2	104.9	110.8	110.6	93.4	83.6	93.1	91.7	102.8	89.1	123.7	92.3	101.4	99.7
Kath. Valley														
Males	3.8	3.8	5.0	5.7	5.4	4.3	4.3	4.3	3.4	1.8	1.7	1.7	4.7	50.0
Females	3.7	3.8	5.0	4.8	5.3	5.5	3.8	4.3	3.2	2.2	1.9	1.9	4.6	50.0
Total	7.5	7.6	10.0	10.5	10.7	9.8	8.0	8.6	6.6	4.0	3.6	3.6	9.4	100.0
Sex Ratio	102.2	100.2	99.2	119.5	100.9	78.4	113.3	101.4	104.2	83.7	90.1	92.1	101.6	99.8
Other														
Males	4.8	5.8	6.4	6.1	4.6	3.4	3.0	2.9	3.2	2.2	2.0	1.5	4.0	49.9
Females	4.9	5.4	5.5	5.7	5.2	3.9	3.7	3.4	3.2	2.4	1.3	1.6	4.0	50.1
Total	9.7	11.2	11.9	11.9	9.8	7.4	6.6	6.2	6.4	4.6	3.3	3.1	8.0	100.0
Sex Ratio	98.0	106.7	116.6	106.4	89.2	87.7	81.5	84.9	102.1	91.7	150.4	92.5	101.3	99.6

Table :7
Distribution of population by age and sex groups for Rural Nepal

						Age G	roup (Year	rs)					(1 CICCI	10)
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
RURAL														
Males	7.1	7.1	6.9	5.0	3.0	2.6	2.5	2.2	2.2	1.9	1.7	1.7	3.8	47.7
Females	6.7	7.3	6.3	5.6	4.5	3.9	3.3	2.8	2.7	2.1	2.2	1.4	3.6	52.3
Total	13.8	14.4	13.1	10.6	7.5	6.5	5.8	5.0	4.8	4.0	3.9	3.1	7.4	100.0
Sex Ratio	106.0	96.7	109.4	90.7	66.0	66.2	77.7	78.0	81.6	87.3	78.4	118.0	107.2	91.0
East Mts./Hills														
Males	6.4	6.5	6.8	5.6	3.0	2.7	2.5	2.4	2.6	1.7	1.5	1.7	4.4	47.8
Females	6.7	6.8	7.0	5.0	4.8	3.2	3.0	2.9	2.7	1.7	2.1	1.6	4.4	52.2
Total	13.1	13.3	13.9	10.7	7.8	6.0	5.5	5.3	5.3	3.4	3.6	3.3	8.9	100.0
Sex Ratio	96.3	96.3	96.7	111.7	62.1	83.9	80.9	82.0	94.8	96.4	69.2	105.1	100.7	91.7
West Mts./Hills														
Males	6.6	7.0	7.1	4.9	2.2	2.1	2.0	2.1	1.7	2.1	1.8	1.5	3.9	45.0
Females	6.2	7.7	6.7	6.4	4.3	3.7	3.5	2.7	3.0	2.4	2.4	1.4	4.7	55.0
Total	12.8	14.7	13.8	11.3	6.5	5.8	5.4	4.8	4.7	4.5	4.2	2.9	8.5	100.0
Sex Ratio	106.4	91.5	106.8	76.3	52.6	55.1	57.2	76.8	58.0	84.0	75.1	107.2	82.3	81.7
East Tarai														
Males	7.8	7.3	6.4	4.4	3.0	2.9	2.8	2.2	2.2	1.8	2.0	1.9	3.5	48.2
Females	7.7	7.6	5.5	5.1	4.3	4.7	3.3	2.7	2.5	2.3	2.2	1.4	2.5	51.8
Total	15.5	14.9	11.9	9.5	7.2	7.6	6.2	4.9	4.8	4.1	4.2	3.3	6.0	100.0
Sex Ratio	101.4	96.2	117.5	85.4	69.1	60.3	85.1	81.3	88.4	81.3	92.3	142.0	138.3	93.2
West Tarai														
Males	7.4	7.3	7.4	5.7	3.9	2.7	2.8	2.1	2.0	2.0	1.4	1.5	3.6	49.7
Females	5.5	6.9	6.1	6.0	4.9	3.7	3.2	3.1	2.4	2.1	2.0	1.4	3.0	50.3
Total	13.0	14.3	13.5	11.7	8.8	6.4	6.0	5.2	4.4	4.0	3.4	2.8	6.6	100.0
Sex Ratio	133.9	105.7	119.6	94.3	80.8	73.1	86.8	68.6	84.0	93.9	67.9	108.3	120.1	98.8

CHAPTER - 2

Living Standards of Rural People in Nepal and India

LIVING STANDARDS OF RURAL PEOPLE IN NEPAL & INDIA

The most popular measures of living standards are income and consumption. In general terms, income refers to the earnings from productive activities and current transfers. It can be seen as comprising claims on goods and services by individuals or households. In other words, income permits people to obtain goods and services.

In contrast, consumption refers to resources actually consumed. Although many components of consumption are measured by looking at household expenditures, there are important differences between the two concepts. First, expenditure excludes consumption that is not based on market transactions. Given the importance of home production in many developing countries, this can be an important distinction. Second, expenditure refers to the purchase of a particular good or service. However, the good or service may not be immediately consumed, or at least there may be lasting benefits. This is the case, for example, with consumer durables. In this case, consumption should ideally the benefits that come from the use of the good, rather than the value of the purchase itself.

EDUCATION:

In Nepal, 49 percent of girls aged 6-15 who belong to low occupational castes or "untouchables" groups, do not attend school, compared to 27 per cent of the same age low caste boys (Nepalese Living Standards Survey 2003/04). Only about 20 per cent of 15 year-old low caste girls are in school, compared to 53

percent of low caste boys of the same age. However, the interaction between gender and ethnic or linguistic divisions has rarely been examined. Hampered by limited data and lack of comparable definitions and measures, the issues surrounding excluded girls and schooling have been recognized but not addressed. Cross-country evidence show a positive association between low rates of girls enrollment compared to boys and higher level of country ethnic heterogeneity. At the same time, empirical finding imply that once in school, girls from excluded groups perform as well as their peers.

Community characteristics may affect enrollment of both boys and girls through different channels: village with highly developed infrastructure may offer better employment opportunities and higher wages thus increasing benefits of the educational investments. At the same time, developed infrastructure, such as availability of piped water source of paved roads in a village, reduces direct costs of schooling. Access to piped water allows girls to spend more time in school (fetching water is the girls' responsibility in most rural households) and reduces the opportunity cost of schooling. Also, the cost associated with sending girls to school may be higher compared to boys if transportation to school requires a long and unsafe walk. The next group of village level factors includes ethnic composition of communities. Education is traditionally valued among high castes. Members of these castes send their children to school, even if it does not translate into economic benefits later in life. A higher proportion of dominant caste households in Nepalese village often implies wealthier communities with better labor market prospects and higher demand for skilled labor. On the other hand, high fractionalization at the village level might impede development process: provision of the public goods has been found to be inversely related to ethnic fragmentation, and collective action targeted on improvements within communities are in general less frequent and efficient in highly stratified societies.

The main results of the estimation at the individual and household level are consistent with the literature on school participation in developing countries. On the village level, availability of piped water source and electricity improves the chances of children being enrolled in school. The most interesting results come from the effects of village caste composition. Not only an individual's identity matters (belonging to the disadvantaged castes reduces the probability of school enrollment), but also community caste composition might significantly affect chances of school participation. The probability of being enrolled or attend school for low caste girl is higher if she lives in a community where the proportion of upper-caste households is higher. This correlation to the social norms prevalent in some of the communities. In other words, society's acceptance or rejection of some activities (schooling or child labor in the context of present research) or behavior directly affects the cost and benefits of individuals. For instance, perception of education as a high-valued good might increase the willingness of households to send their children to school. Moreover, through interaction with a normative environment, individuals may change their own attitudes, perceptions and preferences, and this may even influence their actions provided that their actual behavior is not determined by binding constraints. Second possible avenue for this "spillover" effect is better labor market prospects for the underprivileged girls compared to boys from the same social group and girls from high castes. This is a new phenomenon when new job opportunities became open to girls from lower caste, but not to boys due to caste-network externalities which continue to channel

boys into traditional occupations. High caste girls do not use new opportunities due to the rigid social norm prevalent among the upper social groups which do not allow wives to work for wages.

Quantitative findings of the empirical exercise should be treated with some caution since one faces formidable identification problems when assessing contextual effects, and in a cross-sectional study in particular. Identification of the impact social interactions have on individual's decision is subject to a vast critique. As noted in Moffitt (2001) identification is plausible when one assumes that only endogenous or only exogenous interactions are present. Empirical analysis in this paper is based on only those village level indicators which can potentially be defended as being exogenous.

Since Nepal is an extremely poor country, it is not surprising that the coefficient on the expenditure variable is not only statistically significant, but large in magnitude, implying increase in the probability of enrollment by 20 percent with every income increase by 10 percent. Father education is also an important determinant of both boys and girls enrollment, which confirms finding from the previous studies. The low level of mothers' education is reflected in the insignificant impact of that variable on schooling decision. Distance to school, through has been found to be an important determinant of school attendance in a number of studies, is economically and statistically insignificant in the present analysis, most likely due to the satisfactory supply of schools and given that all children live close to school. Coefficients of interest-female and low caste dummies-have expected negative sign and are large in magnitude conforming patterns from the data: girls and in particular low caste girls are less likely to attend school compared to the boys of the same age.

Availability of all weather road and public standpipe have consistently significant impact on participation in school for boys and girls in Nepal. This is an anticipated result since children are responsible for collecting wood and fetching water in Nepal. Access to clean water saves time and all-weather roads reduce time from walking to the forest and collecting woods, thus reducing opportunity cost of schooling. Presence of the electricity source in a village has a positive impact on girls' enrollment. This might reflect the fact that when the village is provided with electricity, girls do not spend much time at the kitchen where they have a maintain labor intensive and inefficient stoves (those stoves use wood and are very hard to maintain; moreover, they are very harmful for the health of those present at home throughout the day). Electricity also makes the use of the efficient technologies at home more feasible. To check whether same factors on the village level affect participation of children in the market or household work, with the same set of independent covariates using weekly hours of market or household work reported by 5 to 15 years old children as a dependent variable. For the household work, none of the variables on the village level as well as family controls (except father's education) was significant are only reported for market work. Previous conjecture regarding the children's time saved by the developed infrastructure is supported by the negative coefficients on the electricity and standpipe water variables. In electrified village girls on average work 2.3 hours less, and boys work 2.9 hours less per week. However, no conclusion can be drawn about the allocation of time of those children. There are at least 15 percent of idle children (those who neither work no go to school) among 5-10 years old, and about 3 percent among 11-15 years old children.² It might be the case that children do not work because of the improvements in overall village development,

but since their parents either do not put much value on education or can not afford to send their children to school, then participation in school is not increasing as a result of the reduction in hours worked.

Next, proportion of high castes as an additional independent variable to see whether children in villages with higher share of advantaged castes perform better in terms of school participation. Coefficient on PHC is positive and large in magnitude (it can be only compared to the income effect). High proportion of upper castes in a community has strong positive impact on low caste girls' enrollment, while low caste boys are not subject to this influence.

To provide an intuition for these empirical results, the relationship between the enrollment rates of the low caste girls and community where they live. The data by the proportion of advantaged castes below the median (low intensity) and above the median (high intensity). In 2004, enrollment rates of the low caste girls in the communities with higher proportion of upper castes were consistently higher than in communities where proportion of high castes is below the median. That pattern does not hold for high caste girls in 2004, low caste boys in 2004, and for low caste girls in 1996. Graphical evidence suggests that there are changes happening across time and across communities shifting the attitude towards education among low caste households. Three potential explanations come to mind in this connection. Children, and girls in particular, from the lowr caste households might be subject to peer pressure from advantaged caste children whose participation in school is traditionally higher than for the rest of Nepal. Given the limitations of the data (only 12 households are sampled in a village out of average 100 households in a community) and identification problem. Second channel is the overall improvement of the infrastructure in a village with high

presence of the advantaged castes. The village development indicators for 1996 and 2004 for the communities with high and low intensity proportion of high castes households. There is no clear patterns in these data which might potentially explain why low caste girls in communities with the prevalence of upper caste households are participating in school more actively in 2004. Village infrastructure has improved in all communities at approximately the same pace. Third avenue through which disadvantaged girls' enrollment has undergone positive changes is the mechanism suggested in Munshi and Rosenzweig (2006). Nepal started slowly experiencing the modernization of its political, economical and cultural life in the beginning of 1970s. With the high tourist demand for the recreation and trekking opportunities, Nepal opened its borders in 1990s. High volume of tourists, expansion of service and tourist industries brought the need for investments. The Nepalese government allowed foreign investments into only a few industries, and about 40% of these is directed into tourism. New opportunities have been opened up for the females and young girls in the districts visited by the tourists. When caste network externalities channel the boys from the low caste into traditional occupations, and high caste girls stay at home after marriage according to cultural norms, low caste girls benefit from the new opportunities.

To test the impact of supply side variables on the demand for schooling, use available indicators of school quality and school supply. Only one indicator has persistent positive impact on girls' enrollment-presence of at least one female teacher in school. Potential positive influence of female teachers on girls enrollment has been recognized by the Nepalese government in 2004 in the Education for All program which requires at least two female teachers in multiteachers schools.

In this study, I analyzed the determinants of school participation in rural Nepal with a particular focus on the village level indicators. Results of the empirical exercise suggest that the household schooling decision is subject to the aggregate level influences. Thus, in villages with developed infrastructure, children are more likely to attend school, and this result is stronger for girls from poor households. Older girls whose participation is especially low in rural Nepal, are responsive to such improvements on the village level as regular supply of piped water and electricity. Apart from the economic development indicators, important role belongs to the social attitudes in the community as measured by village ethnic and caste composition. Thus, girls from the lowest caste are more likely to enroll in school if there is a large proportion of high caste households. While part of the community caste composition effect operates through income and aggregate village development, its impact remains strong after controlling for individual and household background characteristics.

Besides the government policy of free secondary education for female students, low caste and poor, there exists a variety of educational programs in Nepal sponsored by large donors such as the World Bank, the Asian Development Bank and smaller-scale program supported by NGOs. In general, those programs provide scholarships for poor, girls and other who otherwise are unable to attend school. Impact of such programs is usually not evaluated and there is no evidence on how those initiatives benefit girls from underprivileged families. In shaping development policy targeted at attracting and keeping girls at school in a country where most of the population lives in rural communities, it is important to account for social attitudes and traditions. Another implication is that providing one girl with the scholarship will not change much while the overall level of development

is low. Girls still be forced out of school to fill the needs of families and communities. In order to promote education in Nepalese rural communities, it is necessary to act at both individual and village level, closely work with village development committees, and target the most vulnerable groups-poor and low caste children.

Table : 8
Children 6-15 years, Urban and Rural Nepal

•	Posit	ion
	Boys	Girls
Dependent Variables		
School Attendance	0.85	0.74
	(0.37)	(0.45)
Years of Schooling	3.5	3.0
	(2.63)	(2.66)
Child working (excluding housework)	0.40	0.42
	(0.48)	(0.49)
Weekly hours	7.83	9.15
	(16.15)	(17.52)
Independent Variables		
Age	10.3	10.3
	(3.11)	(3.14)
Mother's years in school	1.55	1.48
	(3.33)	(3.21)
Father's years in school	4.22	4.29
	(4.47)	(4.57)
Per capita expenditure (rupees/1000)	19.86	19.91
	(15.06)	(14.98)
Below poverty line	0.31	0.34
	(0.46)	(0.47)
Land owner	0.78	0.78
	(0.41)	(0.41)
Distance to primary school (in minutes)	16.5	17.0

	(16.57)	(16.00)
Low caste	0.19	0.19
	(0.39)	(0.39)
High caste	0.39	0.41
	(0.48)	(0.49)
Number of observations	2795	2671

Source: Tenth Five Year Plan, Govt. of Nepal

Table: 9
School Quality Variables

	Position
Number of primary school	4.0
Number of secondary schools	1.9
Number of incomplete schools	2.0
One randomly selected primary school :	
Number of days school closed	17.4
School is a permanent structure	0.47
School has electricity	0.11
Desks provided for all students	0.37
Chairs provided for all students	0.42
Female teacher in school	0.60
Number of years school has been in operation	27.52
Administrative data, by district:	
Pupil-teacher ratio] primary school, by district	35.50
Number of teachers per primary school, by district	3.8
Number of pupils per primary school] by district	131.4
Number of observations	229

Source: Tenth Five Year Plan, Govt. of Nepal

Table :10
Village Development Indicators

v mage Development indicators								
	Position							
	PHC<0.35	PHC>0.35						
Number of primary schools	0.025	0.031						
(normalized by the number of hhs)								
Number of secondary schools	0.010	0.013						
(normalized by the number of hhs)								
Accessible road	0.71	0.64						
HHs are connected to electricity	0.53	0.54						
Fraction of Landless HHs	0.19	0.12						
Public standpipe	0.44	0.73						
Number of observations	138	91						

Table: 11
School Enrollment, Children 6-15 years, 1996 and 2004

	All	Girls	Boys
Female dummy	-0.230***		
	(0.0176)		
Low caste	-0.0844**	-0.0771	-0.0938**
	(0.0386)	(0.0543)	(0.0449)
Father education	0.02***	0.02***	0.016***
	(0.00194)	(0.00276)	(0.00209)
Mother education	-0.001	-0.001	-0.002
	(0.00271)	(0.00428)	(0.00249)
Distance to school	-0.001**	-0.001*	-0.001**
	(0.001)	(0.001)	(0.002)
Log (expenditure)	0.170***	0.211***	0.132***
	(0.0149)	(0.0200)	(0.175)
Electricity	0.0289	0.0494*	0.0108
	(0.0204)	(0.0299)	(0.0185)
Fraction of landless hhs	-0.0585	-0.0828	-0.0367
	(0.0390)	(0.0513)	(0.0394)
School is a permanent structure	0.0157	0.0187	0.0123
	(0.0181)	(0.0262)	(0.0184)
Public standpipe	0.0610***	0.0558*	0.0623***
	(0.0209)	(0.0293)	(0.0216)
All weather road	0.0635***	0.0823**	0.0448*
	(0.0241)	(0.0328)	(0.0245)
Low caste *2004	0.0134	-0.0428	0.00370
	(0.0466)	(0.0639)	(0.0522)
Low caste *female*2004	-0.0774**		
	(0.0369)		
Constant	-0.897***	-1.423***	-0.611***
	(0.131)	(0.176)	(0.155)
Observations	6565	3188	3377
R^2	0.250	0.279	0.171

Linear Probability Model. Robust standard errors in parentheses ***p<0.01, **p<0.05, *p<0.1

Table :12
Weekly Work Hours, children 5-15 years, 2004

	All	Girls	Boys
Female dummy	1.721***		
	(0.526)		
Low caste	1.385*	1.901	0.976
	(0.829)	(1.270)	(0.921)
Age squared	0.144***	0.166***	0.127***
	(0.00789)	(0.0135)	(0.00891)
Father education	-0.471***	-0.371	-0.556***
	(0.0712)	(0.102)	(0.0923)
Mother education	0.0662	-0.158	0.217*
	(0.0966)	(0.147)	(0.122)
Distance to school	0.0402*	-0.006	0.079***
	(0.0228)	(0.0303)	(0.0271)
Log (expenditure)	-1.438*	-2.137**	-0.830
	(0.638)	(0.934)	(0.732)
All weather road	-0.602	-1.044	-0.287
	(0.835)	(1.113)	(0.964)
Electricity	-2.655***	-2.323**	-2.896***
	(0.782)	(1.073)	(0.846)
Public standpipe	-1.524*	-2.727**	-0.336
	(0.857)	(1.110)	(0.924)
Fraction of landless hhs	-0.825	-0.225	-1.487
	(1.488)	(2.060)	(1.465)
Constant	11.74**	18.96**	6.836
	(5.875)	(8.298)	(6.822)
Observations	4189	2047	2142
R^2	0.287	0.313	0.271

Clustered standard errors in parentheses

***p<0.01, **p<0.05, *p<0.1

EDUCATION SYSTEM IN NEPAL:

The formal education system in Nepal was established in 1971 and is divided into five levels: (1) pre-primary or early childhood education for 3 to 5 years of age; (2) primary education (Grade 1-5) for children from 6 to 19 years; (3) lower secondary education (Grade 6-8) for eleven to thirteen year-old children; (4) secondary education (Grade 9-10) for fourteen and fifteen year-old; (5) higher secondary education (Grade 11-12) for sixteen and seventeen years old. Secondary education generally refers to Grade 6-12. Before the Interim constitution of 2007, only primary education was provided free charge for all children enrolled in community schools and textbooks are also provided at no cost, poor, and ethnic minorities.

The main budget source for financing education in Nepal is the government. The government provides teachers salaries, management costs, and program costs. At the decentralized level, district, municipality and village development committees provides support in terms of physical infrastructure and also teachers' salaries. In addition, schools collect fees from students. In the case of community lower secondary/secondary schools, students pay NPR 500 (equivalent of US\$ 7.06) or more per year in community schools. Fees for private schools vary. In addition, each school collects various kinds of fees for activities such as sports, special training, as well as for repair and maintenance of facilities such as libraries and laboratories.

There are mainly tow types of institutions providing primary and secondary education in Nepal: community schools and institutional, or private, schools. Community schools are run by the government and receive regular grants from the government. Institutional schools are privately managed and do not receive regular

government funding. In Nepal, 17 percent of the students are enrolled in private schools at all levels of education.

In Nepal. Transition form primary to lower secondary education depends on the results of the final examinations that is conducted at the end of Grade 5. in order to be admitted to Grade 6, students are required to obtain at least 32% in the examination. As for the higher secondary education (Grade 11-12), admission is decided based on the results of the admission test at the end of Grade 10, or School Leaving Certificate (SLC). SLC test is considered nation-wide examination.

There have been a substantial improvements in the net enrollment rates into primary school with simultaneous contraction in gender gap. The percentage of children who enter primary school at appropriate age has increased from 57 percent to 72 percent, while percentage of those who were enrolled into lower secondary school has increased from 21 percent to 30 percent. Proportion of children enrolled in secondary school increased from 12 percent to 16 percent. Still, about quarter of all primary school age (6-10) children were out of school in 2006-2007 with proportions of out of school boys and girls being 19% and 30% respectively.³ Figures are more disperse across development regions: in Western region percentage of children not currently enrolled in school is only 12% compared to Central region where this number amounts to 30%. However, comparing to other South Asian countries, Nepal still lags behind in literacy rates and enrollment in post-primary education levels (secondary, high secondary and tertiary). Literacy rates (where literacy is defined when a person can read and write) for population older than 15 years in 2007 were 34% for women and 65%

for men (with overall literacy rate for Nepal being 48%). This represents an improvement comparing to 1996 when Nepal literacy rate was 35%.

Table :13
Gross and Net Enrollment Rates

	Position			
	Boys	Girls	Total	
Primary school				
Gross enrollment	1.19	1.02	1.11	
Net enrollment	0.77	0.68	0.72	
Lower Secondary				
Gross enrollment	0.74	0.67	0.71	
Net enrollment	0.32	0.28	0.30	
Secondary				
Gross enrollment	0.60	0.49	0.55	
Net enrollment	0.17	0.15	0.16	

Source: Tenth Five Year Plan, Govt. of Nepal

Table shows net enrollment rates into primary, lower secondary and secondary schools in 2008. Similar to other developing countries, children in urban areas are more likely to attend school, both primary and secondary. The difference is more pronounced at higher levels of education. Enrollment rate at lower secondary level for urban children was 48 percent compared to rural rate of 26 percent, while at secondary level for urban children it was 34 percent compared to only 17 percent for rural children. Thus, the gap is larger for upper levels of education.

Regional differences in enrollment rates into primary and secondary school also exist. A poorest performer amount development region is Central region where enrollment rate into primary school is lower than Nepal average by 8 percent. At the same time enrollment rate into lower secondary school was highest

in this region at 35 percent. The best performer at primary level is west region where the percentage of children enrolled into primary school was 85. There are also disparities in enrollment rates at primary level across ecological zones: 81 percent in Hills followed by 77 percent in Mountains with Tarai or Valley region at the end of the spectrum. Same pattern is observed for lower secondary school, while for grades 9 and 10 (secondary school) Tarai region performed better at 20 percent followed by Hills where net enrollment into secondary school was 17 percent.⁴

Differences in enrollment rates are related to the level of consumption at all levels of education. In lowest consumption quartile, only 52 percent of primary age children were enrolled into school, and only 2 percent of 13-15 years old attended secondary school. Among the most well-off population these proportions were 83 and 17 respectively.⁵

Lastly, it is noteworthy to examine disparities at the caste/ethnic level. Nepal is the only Hindu state in the world and almost 80 percent of the population belongs to Hindu caste groups, with Janajatis or Indigenous population of 10 percent, and 4 percent of Muslims. Highest rates of enrollment at all levels are among Hindu groups with lowest rates for Muslims minorities. Even more pronounced are differences in enrollment rates among castes: dominant groups such as Brahman and Newar enjoy much higher rates at all level, while corresponding figures for Dalits and Tarai middle caste are more than twice lower for lower secondary and secondary education. The lowest rates are among Dalits-historically peasants and laborers, also called "untouchables". Tables does not include enrollment rates for the rest of the 9 castes group-Hills Dalits, Muslims, Janajatis from Hills and Tarai and other non-caste groups. Enrollment rates for

those groups are in the range of 70% for primary, 20% for lower secondary and 11% for secondary levels, thus being comparable to average rates in Nepal

HOUSING:

92 percent of households reside in their own housing units, this constitutes only a 2 percentage points decrease from 2006-07. The proportion of renters has increased from 2 to 5 percent in the last 10 years. Average size of dwelling declined from 604 to 531 square feet during the same period. The proportion of households occupying housing units with cement-bonded outer walls, concrete or galvanized sheet roof, and cemented-tiled floor have all increased between these two periods. Similarly, household's access to electricity and piped water has increased from 14 to 37 percent and from 33 to 44 percent respectively. Almost 39 percent of households now have toilet facility in their own dwellings, compared to 22 percent in 2006-07.

Table :14
Summary statistics

Description	Nepal Living Standard Survey		
_	2006-07	2008-09	
Percent of households who reside in their own	93.8	91.6	
housing unit			
Percent of households occupying housing units	2.2	5.4	
for rent			
Average size of dwelling (sq.ft.)	604	531	
Percent of households living in structures with			
Cement bonded walls	10.7	18.3	
Concrete roof	5.7	13.6	
Galvanized-sheet roof	11.2	21.0	
Cement/tile floor	5.1	15.2	
Percent of households with access to electricity	14.1	37.2	
Percent of households having access to piped	32.8	43.9	
water			
Percent of households with own toilet facility	21.6	38.7	

Source: Tenth Five Year Plan, Govt. of Nepal

Occupancy Status:

Housing occupants are broadly categorized into owner, renter, rent-free and others. 92 percent of the households reside in their own housing units, 5 percent are renters (pay rent) and 2 percent live on rent-free housing units. Not surprisingly, 24 percent of households in urban areas pay rent and the proportion is 33 percent in the Kathmandu valley urban areas alone. Renters account for 14 percent of households from the richest consumption quintile.

Number of Rooms, Area of Dwelling and Housing Plot:

A dwelling size is measured by number of rooms and its surface area. Average number of rooms per household is 3.7 in the country. While urban household have one more room than rural households on average (4.5 versus 3.5), households from the richest consumption quintile have two more rooms on average relative to those households from the poorest quintile, indicating greater degree of crowding in poorer households.

Surface area of a dwelling measures space available for each household inside that dwelling. Average surface area of dwelling is 531 square feet in the country. This area increases markedly moving from households from the poorest consumption quintile to the richest quintile. Urban area dwellings have an additional 63 sq. ft. of surface area on average over rural area dwelling. Other regional differences are small.

Land area surrounding the dwelling is also important and it is measured by area of the housing plot. Average area of housing plot is estimated to be 1473 sq. ft. in the country. Among development regions, the East has the largest plot area

on average. Urban-rural differences are not large, although as one would expect, in the Kathmandu valley area housing plots on average are the smallest in the country.

Construction Material of Outer Walls:

Distribution of households occupying housing units by construction material of outer walls. 48 percent of housing units are walled by mud-bonded bricks/stones. Other materials include "wood and tree branches" (19 percent), "cement bonded bricks/stones and concrete" (18%) and "others" (16%).

The proportion of households occupying housing units structure with "cement bonded bricks/stones and concrete" outer walls (often classified as "super pukky") is 57% in urban area and only 11 percent in rural areas. Among rural areas, the West Tarai has the highest proportion (22%) and the East Mountains/Hills the lowest (5%). Proportion of households with dwellings walled by mud-bonded bricks/stones is much higher in the Hills and the Mountains, while those walled by "wood/branches" is higher in Tarai areas.⁷

There is a clear association between quality of dwelling walls and households consumption. Richer households are more likely to wall their housing units with either cement/concrete or bricks/stone while poorer households wall them with brick/stones, wood/branches and other materials.

Materials for Roofing:

More durable roofing materials like galvanized sheet and concrete are used in 21 and 14 percent, respectively, of the households' housing units in the country. On the other hand, the proportion of households residing in housing units roofed

with straw/thatch is 32%, followed by tiles/slates share of 30 percent, and "others" (earth, mud, wood, plank, etc.) share of 3% in the country.

Percent of galvanized sheet/concrete roofed dwelling is much higher in urban areas than in rural areas (81 percent versus 26 percent). Among rural areas, the East Hills/Mountains and the East Tarai are most likely to have their housing units roofed with straw/thatch while the West Hills/Mountains and the West Tarai with tile/slate. Among development region, the proportion of straw/thatch roofed structures records to 55 percent in the East followed by the Mid-west (45%) while this proportion is only 11% in the Far-west; most of the structures in the Far-west are roofed using tiles or slates (79%). Only 14 percent of total households are residing in the buildings that are concrete-roofed. Among development regions, the proportion varies between 5 percent (the East) and 20 percent (the West). Tarai (16 percent) has the slightly higher percentage compared to Hills (14 percent).

Distribution of Galvanized sheet/concrete roofed housing units is very prorich. 72 percent of households from the richest consumption quintile occupy housing units roofed by these durable materials while the same proportion is a mere 8 percent among households from the poorest quintile. More than 60% of dwelling from the poorest quintile are roofed by straw/thatch.

Flooring materials:

Earth is the most common flooring material in the country. 79 percent of the households have their housing units with earth flooring. On the other hand, better flooring material such as cement/tile is used in only 15 percent of housing units.

Among development regions, about 20 percent of housing units are floored with cement/tile in the West and Central regions, whereas this figure is only 7 percent in the Far-West. More than half of the dwellings in urban areas have cement/tiled floors, compared to less than 10 percent in rural areas.

More than 90 percent of housing units occupied by households form the bottom three consumption quintiles have earth flooring. And 46 percent of those households from the richest quintile have cement/tiled flooring, indicating a strong link between quality of dwelling flooring and per capita consumption.

Access to Drinking Water Supply:

The piped water is considered as a source of safe water. only 14 percent of households in Nepal have access to drinking water piped to the house and 30 percent have their drinking water piped but outside the house, the remaining 56% of households depend on covered well (37%), open well (5%) and other (14%).

Among development regions, the West has the highest proportion of households having access to piped drinking water (59%) while the East has the lowest (32%). Among ecological zones, Taria has the least access to piped water (15%), where about 75 percent of households fetch drinking water from covered well. Urban areas, as expected, have better access to safe water relative to rural areas (68% versus 39%). Among rural areas, Hills/Mountains seem to fare better than their Tarai counterparts.⁸

Access to piped water is positively associated with household consumption.

39 percent of households in the richest quintile have their drinking water piped to

their housing units. This figure is only 3 percent among households in the poorest quintile.

Access to Household utilities and Amenities:

Household's access to a certain facility in terms of time taken for one-way travel to that facility, irrespective of transport mode (foot or vehicle). The shorter the time taken by a household to reach a facility, the higher is the degree of access. This chapter looks at access to facilities such as primary school, health post, bus stop, paved road, local shop, hat bazaar, market center, agriculture center, cooperative, commercial bank, post office and telephone booth.

Household's access to various utilities and amenities. Overall, 37 percent of the households have access to electricity in their dwellings. Urban-rural difference is large (87% versus 27%), but so is the gap between the poorest and the richest (78% versus 10%). Only 6 % of households in the country have access to telephones, but the distribution is highly pro-urban and pro-rich.

12 percent of the households have access to sanitary (sewerage) system in the country. And it is concentrated in urban areas (54%) and the richest quintile (35%). Access to garbage disposal facility is worse than the sanitary system. Only 8 percent of the households in Nepal have garbage collection/disposal facility. Urban-rural and rich-poor gaps are even starker. The proportion of households with proper toilet facility in their dwelling is 39 percent. Distribution across urban/rural and quintile groups are highly skewed, similar to other amenities described above.

Between 1995/96 and 2006/07, accessibility has improved almost universally across all types of facilities. Household's access to primary schools within 30 minutes (of travel time) was already high eight years ago, and now stands at 91 percent. By this measure, proportion of households with access to health posts/hospitals has increased by 17 percentage points and cooperatives and agricultural centers by 8 percent points each. Similarly, access to commercial bank increased by 7, market center by 10, haat bazaars by 20, paved roads by 13, vehicle passable dirt-roads by 10 and bus stops by 20 percentage points during the same period.⁹

Table :15
Summary statistics

Summer y Statestics						
Description	Nepal Living S	Nepal Living Standard Survey				
_	1995/96	2006/07				
Household's access to facility within 30 minutes of travel time						
Primary school	88.4	91.4				
Health post/Hospital	44.8	61.8				
Cooperative	25.9	33.7				
Agricultural center	24.5	31.9				
Commercial bank	20.7	27.8				
Haat bazaar	41.4	60.7				
Market center	24.2	34.4				
Paved rood	24.2	37.2				
Dirt roads vehicle passable	58.0	67.6				
Bus Stop	33.1	53.0				

Source: Survey Report

Primary School:

91 percent of households in Nepal are within 30 minutes of access to a primary school. In urban areas, almost all households (99percent) are within this reach. Among rural areas, Tarai households have somewhat better access relative to their Hills/Mts. counterparts. And richer households are closer to this facility

than poorer households, but the gap is small. For instance, mean time for a household in the richest quintile to reach a primary school is 10 minutes and that in the poorest quintile is 14 minutes.

Health Post/Hospital:

Access to health post and hospital presents a somewhat different scenario. Only 62% of households in the country are within 30 minutes of reach. Urban-rural gap is large (89% versus 57%). Among rural areas, the west Hills/Mts. are at disadvantage. Among development regions, the Central has the best access while the Far-west has the least access. Most strikingly, the mean time taken to reach this facility by households is the bottom four consumption quintiles is about 1 hour 15 minutes while that for the richest quintile is only 16 minutes. ¹⁰

Bus Stop:

Bus is, by far, the most popular means of long-distance travel in the country. 53% of households are within 30 minutes of reach to the nearest bus stop. About one-fourth of households take half hour to 2 hours, and for 17 percent of households, it takes more than 3 hours.¹¹

Among development regions, the Central has the best access while the Farwest the worst. Not surprisingly, Tarai fares much better than other two ecological zones. Similarly, about 90 percent of urban households have a bus stop facility within 30 minutes. On the other hand, the mean time taken by a rural household to reach the nearest stop is 3 hours and 12 minutes. Travel time differs between the first four consumption quintiles and the richest quintile by about an hour on average.

Road Transport:

Access to road and bus-stop are closely related but road includes three types: paved road, vehicle passable dirt road and vehicle impassable dirt road. Road encourages mobility of goods and labor, that in turn affect living standards of people. In Nepal, only 37 percent of households have paved road within 30 minutes, while 27 percent have to travel for 3 hours or more. On the other hand, 68 percent have access to vehicle passable dirt road within 30 minutes. Access to vehicle impassable dirt road is almost universal.

Disparities in access to paved and vehicle passable dirt roads across development regions, urban-rural areas, ecological zones and consumption quintiles follow similar patterns seen in access to bust stop.

Post Office and Telephone Booth:

Overall, 61% of households are within 30 minutes of access to the nearest post office, while this proportion in the case of nearest telephone booth is 54 percent.

Both these facilities are within easy access in urban areas. But the story in rural areas is quite different. The mean time taken by a rural household to reach the nearest post office is 1 hour 17 minutes and that to the nearest telephone booth is 2 hours 13 minutes.

Percent of households in the bottom four consumption quintiles within 30 minutes of access to both the post office and the telephone booth is around 50

percent or so, while the figure for households in the richest quintile is around 80 percent.

Market center and Haat Bazaar:

Only 34 percent of households are within 30 minutes of access to the nearest market center, followed by "30min-1hour" (19 percent), "1-2 hours" (20%), "2-3 hours" (9%), and "3 hours and more" (17%). Compared to market center, access to Haat bazaar (Local market that operates during certain days of the week) is much better: 61 percent of households in the country are within 30 minutes to the nearest Haat bazaar.

Differences in access to market center across urban-rural areas and consumption quintiles are quite large. The mean time taken by an urban household to reach this facility is 20 minutes while that be a rural household is 2 hours 14 minutes. On average, it takes more than three hours for households in the bottom two quintiles to reach the nearest market center, about 2 hours for third and fourth quintile and just about and hour for the richest quintile.

On other hand, the mean time to reach a nearest Haat Bazaar is 22 minutes for urban households and 1 hour and 16 minutes for rural household. An average household from the bottom four quintiles takes more than an hour on average to reach the facility, when that from the richest quintile takes just 15 minutes.

Agriculture Center (Krishi Kendra):

Only 32 percent of households in Nepal reach the nearest agriculture center within 30 minutes. Access is worse in rural areas, especially in the Hills and Mountains. Access to this facility is strongly associated with household

consumption- 17percent of the poorest quintile are within 30 minutes of access while this figure is 53 percent among households in the richest quintile.

Commercial Bank:

Access to a commercial bank help to intermediate financial needs of borrowers, savers and investors in a community. Only 28 percent of households in the country can reach the nearest bank within 30 minutes. For some 27 percent of households, it takes 3 hours and more. 12

Among development regions, the Central (37%) has the highest access and the Far-west (13 percent) the lowest, Urban-rural gap is quite large (86 percent in urban versus 16 percent in rural). And not surprisingly, only 10 percent of households in the poorest quintile are within 30 minutes to the nearest bank, while over 57 percent of households in the richest quintile have such access.

Source of Drinking Water:

Most accessible facility in the country is the source of drinking water. More than 98 percent of households are within 30 minutes of this source. Disparities across regions or consumption groups are minimal.¹³

Cooperatives (Sajha):

Cooperative is an institution that supplies goods (including farming inputs such as fertilizers and seeds) to households. The percent of households within 30 minutes of access to this facility is 34 in Nepal. By this measure, more than 80 percent of urban households have easy access to a Sajha while only 25 percent of rural households have such access. Among rural areas, Hills/Mts. are much worse

relative to their Tarai counterparts. Consistent with other types of facilities, accessibility increase with household consumption.

Nepal lies landlocked between India and China, its dramatic landscape rising from the lowland plains of the Terai up to the peak of Everest in the Himalayas. After a decade-long violent conflict between Maoist, Manarchist forces and political parties that has claimed more than 13,000 lies and damaged the social and physical infrastructure of the country. Parliament has now been restored. However, the troubles continue and have added new challenges to development, especially in rural areas. People are increasingly migrating to urban centres to escape the poverty or violence of life in the country. Although it is estimated that 84% of people have access to water, in hill areas distances to water sources are great. The Teria wells are often highly polluted and the quality of water is affected by the presence of arsenic in many areas. More than 73% of the population do not have access to sanitation, spreading disease through unhygienic living environments.

Water Aid's aim is to improve the lives of poor people through its work with non governmental organizations (NGOs) partners which in Nepal are: Nepal water for Health (NEWAH), Lumanti, Environment and Public Health Organization, urban Environment Management Society, Centre for Integrated Urban Development, and NGO Forum. Water Aid also supports the Federation of water and Sanitation Users Group (FEDWASUN)- a network with more than with 700 water and sanitation users groups representing 50,000 households-to make the voices of poor people heard by the local governments and service providers at the national level.

In rural areas WaterAid and NEWAH have provided water, sanitation and hygiene education to more than 3% of the population, while our urban work reaches those living in slum and squatter settlements in the Kathmandu valley and towns in the narrow strip of flat, fertile land along the Indian border called the Terai.

Nepal rises out of the Teria up into the incredibly steep foothills and mountains of the Himalayas. This extreme topography determines the areas which can be accessed and the methods used to ensure safe drinking water and improved sanitation. Technologies are chosen that are appropriate to local conditions, affordable and easy to set up and maintain by the communities themselves.

Ensuring the quality of water sources is a major challenge. In the Terai arsenic has been found in 17% of wells. WaterAid and its partners use arsenic detection and mitigation methods to keep wells safe. Falling water tables and ground water pollution pose additional challenges to providing water and sanitation services to poor people in Nepal.

In the hills projects use gravity flow piped supplies where water can be transported by pipework from natural springs to tapstands placed near to homes, thus reducing the drudgery involved in carrying water a long way. In Kathmandu traditional wells are rehabilitated and shallow tubewells installed.

Education on hygiene practices is also carried out in communities, maximizing the health benefits of improved water and sanitation services. Water-related diseases are common in Nepal but for the majority of the population the causes of ill-health are shrouded in superstition. Hygiene education is always

included in WaterAid projects so that communities learn the importance of handling water safely and associated hygiene practices. Hygiene education tiles on the walls of some village' public latrines, depict images to promote the importance of washing hands after visiting the latrine or of washing vegetable before cooking. Other promotion methods include role play, puppet shows, songs, home visits and practical lessons.

As well as helping communities to manage water and sanitation improvements and change their hygiene practices, the sustainability of projects is always key to our work in Nepal. For example, NEWAH as piloted the establishment of a SaniMart to increase the accessibility of latrine parts in the Udayapur distirict in the Eastern region. SaniMarts are easily accessible shops, staffed by trained sanitation promoters, where latrine construction materials, which are usually hard to come by are sold at affordable rates.

A strategy running from 2005 to 2010 sets out the plans and activities for WaterAid in Nepal. During this time WaterAid will continue to focus on Water, Sanitation and hygiene education working with local partners on community managed projects. Our work in Nepal will continue to be pro-poor, sustainable and environmentally sound.

The key aims are to:

- Directly help 31,000 more people gain access to water and 44,000 more people gain access to sanitation and hygiene education every year by 2010.
- Support and strengthen local partner organizations and other non-governmental organizations to ensure at least a further 32,000 people gain access to safe domestic water and 33,000 to sanitation every year by 2010.

During the period of the strategy WaterAid will have an increased focus on sanitation. It is estimated that only 27% of the population has access to a latrine. This means that in many cases the potential life changing benefits of a clean water supply are being and undermined by ill-health caused by and unhygienic environment. Therefore further efforts are needed to build latrines and to provide education on good hygiene practices. Stopping defecating in the open where waste can wash into streams and rivers will help to keep water sources uncontaminated, reducing the spread of disease.

WateAid will also allocate 30% of its programme expenditure in Nepal for expanding its urban projects to help meet the rapidly increasing need for safe water and sanitation. Migration to towns and cities from the countryside has accelerated due to the ongoing conflict. This means that many poor people arriving in urban areas often end up in slums or squatter settlements that already have no effective water supply or sanitation services.

The conflict has impeded human development and WaterAid is working to enhance its partners' capacity to work under these conditions. Out partners will continue their projects using pro-poor policies to better identify, target and positively impact on poor and deprived communities.

In Nepal, official estimates state that 42% of the population live below the poverty line. Links between the poor and the Government and service providers are weak and can result in unaccountable agencies failing in their duties to deliver services to which people are entitled under national poverty reduction strategies. To create accountability WaterAid and its partners are working at the local level through citizens' Action projects. Through these, communities develop a fuller under standing of their entitlements to services, gather information on their current

situation, and learn about the range of responsibilities for policy and service delivery. People are then supported to hold service providers to account through a process of dialoguer, negotiation and action. The ultimate aim of these projects is the ensure that governments and service providers sticky by their commitments and that citizens gain access to sustainable and affordable water and sanitation services.

At the national level, WaterAid and its partners will continue to lobby for more and better financing, with special emphasis on sanitation. We will also call on the water sector to plan their activities in a way that is clear, open to challenge, and responds to the demands of poor people.

Status of Road Development in Nepal:

Road development in Nepal started only after the advent of democracy in 1950. The first motorable road was constructed in the Kathmandu Valley by the then Rana rulers in 1924. The 42 km all weather gravel road between Amlekhganj to Bhimphedi was the first road of its kind constructed in 1929 outside the Kathmandu valley. The first long distance road to link Kathmandu with the Terai was taken up in 1953 with Indian assistance. This 115 km long road between Thankot (Kathmandu) and Bhainse (Makawanpur) was opened to traffic in 1956.

The National Road Network comprises of National Highways, Feeder roads, Urban roads, District roads and Village roads. The National Highways together with the Feeder roads constitute the Strategic Road Network (SRN) of the country. The Strategic Road Network is the backbone of the National Road Network. The construction and maintenance of the strategic roads fall on the responsibility of the Department of Roads.

The district roads together with village roads constitutes the District Road Network. At present the National Road Network has altogether 24000 km (30% blacktop, 27% gravel and 43% earthen roads) in 2008. The strategic, urban and local roads share 32.5%, 13% and 54.5% respectively in the National Road Network.

The Strategic Road Network serves as the backbone of the National Road Network. The Strategic roads have high traffic volume in comparison to district roads. There are 15 national Highways and 51 Feeder roads totaling 8000 km in the Strategic Road Network. The government plans to increase the length of SRN to 12000 km by the year 2017.

Local Road Network (LRN), comprises of District Roads, those urban roads not included in SRN, village roads, agriculture roads, mule trails and tracks, Trail Bridges, Ropeway etc. With the advent of Multiparty democracy in 1989, there has been a tremendous demand of constructing roads in rural areas. Though there are District Transport Master Plans prepared by the districts the growth of LRN is quite haphazard.

Road development status of Nepal is not satisfactory compared to the south Asian countries. Nepal has a very low road density of 6.39 km per 100 sq km thus indicating poor accessibility to various parts of the country. At the end of first year of eleventh plan 6 district head quarters namely Bajura, Dolpa, Mugu, Humla, Manang, Solukhumbu are still lacking road connection. The Eleventh plan aims to road link the 3 district headquarters namely Bajura, Manang and Solukhumbu this year and the remaining three headquarters by the end of the eleventh plan that is 2010.

Table : 16

The comparative Chart of Strategic Road Network length, Influenced Population and Density (1998-2006/07)

Year	Description	Length		Total	Influenced	Density	
AD		BT	GR	ER		population	km/100
						(per km)	sq km
1998	9 th Five	2905	1656	179	4740	3901+	3.22
	Year Plan						
2000		2974	1649	171	4794	3857+	3.26
2002	^{10th} Five	3029	1664	168	4861	4763++	3.30
	Year Plan						
2004		3495	883	614	4992	4636++	3.39
2006/07		4258	2062	3079	9399	2463++	6.39

Source: Population census 1991+; Population census 2001++, Survey Report

Note: BT-Black Top; GR-Gravel; ER-Earthen

The Legal Framework:

Infrastructure development had remained a priority of the government right from the beginning of first five year plan. With a view to facilitate and to create enabling environment many legislations have been enacted since then. Rules, Regulations and Guidelines have been developed and put to use. Policy documents have been passed and practiced so as to streamline the direction of the development. In this connections the following Acts, Regulations, Policy framework etc. have been brought in place:

- 1. Public Roads Act, 2031
- 2. Local self Governance Act 2054 and Regulations 2055
- 3. Public Procurement Acts 2063 and Regulations 2064
- 4. Contract Act, 2023 and 2058
- 5. Construction Industry Acts 2055
- 6. Private Investment in infrastructure, Build and Operate Ordinance 2060
- 7. BOOT Acts 2063 and Regulations 2064

- 8. Roads Board Act 2059
- 9. Engineering Council Acts 2055 and Regulations 2057
- 10. Road Sector Policy 1999
- 11. Public Infrastructure Build, Operate and Transfer Policy 2057
- 12. Priority Investment Plan 1997-2007
- 13. Priority Investment Plan 2007-2017
- 14. The Department of Roads Strategy 1995
- 15. Road Maintenance Training Policy 2001
- 16. Human Resource Development Policy and Strategy 2002
- 17. Bridge maintenance Policy, 2004
- 18. Consulting Industry Acts (Development Phase)

Donor support in Road development:

There has been good support from different donor communities toward the development of road sub sector in Nepal. Among the major contributors are India, China, Japan, UK, USA, Switzerland, Germany etc. There is a generous support from Asian Development Bank and World Bank for the development of road network and also for maintenance/rehabilitation of existing roads. The following projects are being implemented with donor support:

- Syafrubesi Rasuwagadhi Road : Grant assistance of Government of China
- Terai Road Project : Grant assistance of Government of India
- Road Improvement Project: Loan from Exim Bank; Government of India
- Bancpa Sindhuli Bardibas Road : Grant Assistance from Government of Japan
- Koteshor Bhaktapur Road : Grant Assistance of Government of Japan
- Road Sector Development Project : Grant assistance of World Bank/IDA

- Road Network Development Project: Loan from Asian Development Bank
- Sub Regional Transport Facilitation Project : Loan from ADB
- Kathmandu Terai Fast Track Project Development : ADB Loan
- Road Connectivity Improvement Project : Grant Assistance from ADB
- Road Sector Development Project preparation. Grant from world Bank
- Flood Rehabilitation Program : Proposed Grant from ADB

The Opportunities for development :

Nepal is a small and beautiful country. The bio-diversity that exists across the narrow cross section of the country is quite vast. The water resources that are available here could be harnessed for global benefits. The friendly people here with a pride history could be of interest as a living museum to global visitors. The country has a tremendous amount of load shedding which needs to be removed in near future by constructing thousands of Megawatts of electricity. Government aims to provide by the year 2017 transportation facilities to its people in a maximum of 2 hours and four hours walk in plains and hills respectively. Thousands of Kilometres of good standard roads need to be constructed to achieve this target. With these special needs and circumstances the opportunities for development of infrastructure could be as below:

- 1. Development of highways, fast rack and expressways.
- 2. Development of hydropower both for internal use and export
- 3. Development of tourism both Internal and foreign
- 4. Development of trade and transit with neighbouring countries.
- 5. Development of forest products, medicinal plant, wild life and pastures
- 6. Development of consulting and construction industries.
- 7. Attracting Private sector funding in infrastructure development

- 8. The changed transport need brought about by the introduction of Federal states
- 9. The growing need for Construction of Expressways/fast track
- 10. Critical need for development of settlements and townships
- 11. Practicing Earthquake resistant design and technology
- 12. Research and Development aimed at indigenous and efficient construction.

The challenges being faced:

Development of surface transport in Nepal faces various challenges due to the rugged topography, fragile geology, numerous river crossings etc. Some of those cross cutting issues to be addressed in connection with development of roads are as follows:

- Management of Funding gap through internal resources and donor support
- Infrastructure development in rugged Topography and fragile geology complicated by high seismicity and big rivers
- Brain drain of skilled manpower
- Non engineered roads and other infrastructures on local initiatives
- Development of Railways under difficult gradient and numerous crossing
- Inadequate Maintenance considerations for already constructed infrastructures
- Lack of political stabilities and prolonged transition phase
- Quality Control and sustainability in question
- Need for controlling Corruption and Fradulent Practices
- Harsh competition with the membership of WTO

Nepal has been able to expedite its infrastructure development in the last two decades. This has made it possible that all the district headquarters would be road linked within next two years. Infrastructure including Road transport is seen as a vital tool towards poverty reduction. People have shown their keen interest towards infrastructure development in their areas. The donor support towards infrastructure development is increasing over the last few decades which have been instrumental to shape the road network of Nepal to present status. Legal provisions such as Acts, Regulations, plans and policies are in place to create enabling environment. The private sectors are willing to put their investment to infrastructure sector once the political stability is restored. Rapid progress of China and India, the two big neighbours could benefit Nepal from their development. The opportunity for infrastructure development is therefore, quite high in Nepal. Capacity building of both the consulting and construction industry is required in order to shoulder this responsibility mostly from within the nation.

The past efforts and experiences have revealed that there are some constraints to develop basic infrastructure. The funding has always remained as a key issue. Haphazard and non engineered construction has raised serious concerns towards the sustainability of already opened track roads. The quality control has not received due emphasis in some of the infrastructure developments in the past. These issues need to be addressed well as the country moves towards 'construction of Nepal'. With these opportunities and challenges Nepal has put its highest priority towards the extension of its road network Together with the donor support, mobilization of internal resources including private funding and asset maintenance priority the scope for infrastructure development is tremendous. Based on the past experiences it is believed that poverty reduction would be realized through adequate, safe and sound road network. Nepalese consulting Industry together with the construction industry here should develop themselves

side by side so to shoulder this responsibility that the time is going to put on to them.

Rural Electrification in Nepal:

About 88% of Nepal's population remains in the villages and only about 15% Nepalese have become fortunate to use the electric power so far. As such, the focus on effective measures to be galloped in the rural electrification can hardly be deprecated.

Although we have spent a huge quantum of money in rural electrification, we must accept the bitter truth, though unwillingly, that we have become unable to address the real problems of commercialization in this field so far. Long distribution lines in rural areas beyond standards, direct hooking and other fraudulent practices of energy pilferage have made our whole episode of endeavour in rural electrification starkly weak and unproductive. If we are about to develop suitable and sustainable models associated with electric distribution in villages, we must be very careful that our models are neither too detailed and sophisticated nor too simple for reliable and qualitative performance.

Funding these co-operative projects and giving them all sorts of technical assistance and legal support will certainly encourage the rural people to use electricity as a means of enhancing the quality of life and the well-being of the society.

The co-operative model is extremely required to draw good outcome from the rural electrification so that it would take its course in the genuine favor of public health, education, industrialization and job opportunities leading to the elevation of the rural living standard. Rural electric co-operative models should be, beyond doubts, an integral part of the national energy policies and distribution system.

What is electric co-operative concept:

In fact, it is a socialistic approach to make people responsible for local management of electric energy distribution by the process of "participatory management."

The co-operative concept in energy management may also be called democracy partnership comprising of diverse civil societies scattered throughout the villages of the county.

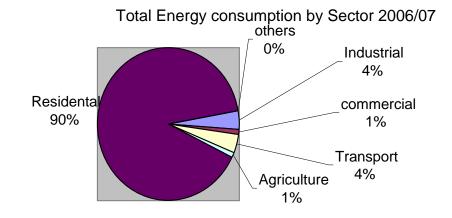
Unlike other co-operatives, electric co-operatives are not profit-driven basically. They exist primarily to provide service to their consumers. In fact, it is not merely a users' organization, but it is a way of life in which economic activity attains momentum by self-managing and distributing the electrical energy for their own benefits.

It is also a concept of competitive marketplace particularly in the distribution sector of electricity. It should operate on sound business policies and practices although it is basically a not-for-profit organization as already mentioned above.

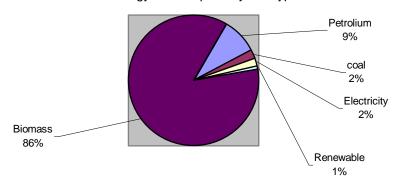
Present Energy Scenario in Nepal:

Nepal relies heavily on traditional energy resources, as no significant deposits of fossil fuel are available. Nepalese use the lowest commercial energy (around 500kWh per capita per year) of all South Asians by far. The total energy consumption in Nepal for the year 2006/07 was 363 million GJ of which the residential sector consumed 90% and agriculture sector 1%. Based on the fuel

type, biomass provided 86% of the total energy consumption, petroleum 9%, which is mainly consumed by urban areas, electricity only 2% and renewable 1% of the total energy consumption.



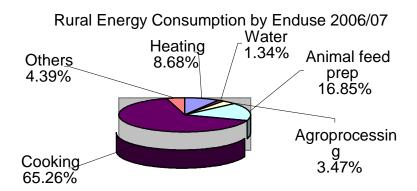
Total Energy consumption by Fueltype 2006/07



About 40% of the total population has benefited from electricity by the end of the Ninth Plan. This 40% is reported to include consumption of 33% from National gird and 7% from alternative energy.

About 84% of Nepal population lives in rural areas, and agricultural work is the mainstay of the rural population. For the year 2006/07, total energy consumption in 288 million GJ of which the rural residential consumed 97%. From end use perspective, of the total energy consumed in rural Nepal, 63.9%

was used for cooking, heating accounted for 8.5%, lighting 1.31%, agro processing 3.4%, animal feed preparation 16.5% and others such as religious occasions and ceremonies 4.3%



Of the total energy consumption of 288 million GJ in rural Nepal, biomass accounts for 98% while electricity accounts for only 0.1% of the total energy consumes and petroleum products comprise 1.6% and renewable source 0.5% of the total energy consumed.

The Millennium Development Goal put forward by the United Nations are development milestones for developing countries to be met by 2015. Every one of the six goals requires the usage of energy to meet the goals.

Halving Extreme Poverty: Energy for income generation

Halving the number of people living with hunger : energy for agriculture and food processing and irrigation.

Achieving universal education: energy for lighting, communications and internet

Promoting gender equality: Reduce burden of firewood collection and cooking time and indoor pollution, opportunities for education.

Reducing mortality/improving health: reduce indoor air pollution, vaccinations using refrigeration.

Ensuring environment sustainability: reduction in the use of firewood, reduce production of greenhouse gases.

Energy Resource Base in Nepal:

The major energy resource base in Nepal consists of biomass, hydroelectricity, petroleum products, natural gas, and coal reserves. Among the entire energy resource base, it is evident that biomass is the dominant resource base of the country with respect to its utilization. Nepal has a huge potential for hydropower production, but currently this remains mostly untapped. Other commercial forms of energy are not know to exist in any significant amounts.

a) Biomass Energy:

Nepal relies heavily on biomass fuel as a result of the lack of development of other energy alternatives and the overall poor economic condition of the nation. Fuel wood is the main source of energy in Nepal and will continue to remain so for a long time. The theoretical estimated sustainable annual yield of fuel wood in Nepal is 25.8 million tones, or an average of 2.8 tonnes per hectare of forest. However, only 42 per cent, or 10.8 million tones, of the theoretical sustainable supply is accessible.

Forest resources are under increasing threat form the burgeoning human and livestock population and their need to meet annual requirements for fuel wood, fodder, timber, and other minor forest products. About 44,000 ha of forest area is believed to be degraded and deforested annually, while only about 4,000 hectares are reforested. Conversion of forestland for cultivation, high population

growth, and a low level of development have all aggravated the pressure on forests throughout Nepal. Where forests are becoming relatively scarce, people are relying increasingly on crop residue and animal waste, resulting in the degradation in fertility of the agricultural land. In 1994/95, the supply of crop residues in the country that could be used as energy was estimated to be 112.13 million tones. Likewise the country has 4.8 million tones of animal dung annually potentially available as fuel.

b) Hydropower:

The hydropower potential of Nepal's river systems is about 83,000 MW, out of which only 25 per cent is potentially available for development. Hydropower utilization is currently less than one per cent of the proven potential. The total installed hydroelectric generation capacity is 586 MW. This power has been made available to 878100 consumers through 1962 km of transmission and distribution lines. The national grid represents the overall hydroelectric industry of Nepal as it accounts for almost 98 per cent of the capacity and 99 per cent of the energy supplied. Apart from national grid, both the public and private sectors and independent power producers manage isolated supply systems. At present there are 35 small/min hydroelectric plants in operation in remote areas of the country.

c) Petroleum, Natural Gas, and Coal:

So far no proven reserves of petroleum suitable for commercial exploitation have been found in Nepal. Thus all petroleum products consumed are imported in refined from for direct consumption. The alternative fossil fuel, natural gas, has also not been discovered as yet in any significant amount. Coal is in many countries among the cheapest sources of energy known. Two deposits are believed

to have some economic significance, one in Kathmandu and one in Dang. Even these deposits, however, are believed to be insignificant in terms of the energy demand.

Renewable Energy Development Scenario in Nepal:

There is a dire need to substitute as well as supplement the traditional energy supply system by modern forms of sustainable energy in terms of resources and technology. Because of the country's dependence on imported fossil fuel, high cost of grid connection and low and scattered population density, a decentralized energy supply system becomes the natural and feasible choice. Decentralized new and renewable energy systems such as micro hydro, solar photo voltaic, biogas, improved cooking stove etc provide feasible and environment friendly energy supply options in rural areas. The most important renewable energy technology in Nepal is related to pico hydropower and micro hydropower (up to 100kW), biomass energy (biogas, briquettes, gasifiers, improved cooking stoves), solar photovoltaic, solar thermal energy.

Government Policies for Promotion of Renewable Energy and Poverty Reduction:

The positive role of renewable energy technology for the fulfillment of energy needs of the rural people was recognized by the National Planning Commission/Nepal during the Seventh Five Year Plan. The Eight Plan (1992-1997) envisaged the need for a coordinating body for large-scale promotion of alternative energy technologies in Nepal and alternative Energy Promotion Centre (AEPC) was thus established to promote the use of Renewable Energy Technology and act as the government coordination body. Though renewable

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energy programs have positive implications on poverty reduction, but this has not been the explicit goal of renewable energy programs in Nepal until the commencement of the Tenth Plan in 2002. A separate subsidy policy has been has also been made effective by His Majesty's Government of Nepal (HMG/N) channeling through the AEPC, for extensive promotion of RETs in the rural areas.

The improved cook stove and biogas programs initially had goals to reduce firewood consumption but now they also justify themselves on health ground and are linked to income generation as well as reduction of women's drudgery. Biogas has been mainly used for cooking and the bio slurry has been used as a high quality fertilizer for increasing agricultural productivity. Few households have used the biogas for lighting. Micro hydro was seen as a technology o reduce drudgery, provide lighting but now the productive end uses are considered as the desired priority. Solar energy has served widely as a home lighting device. Solar energy has also been used for drying and cooking food, powering computers, irrigation and drinking water systems but these uses are very limited.

The overriding objective of Nepal's developmental effort is poverty alleviation. The Tenth Plan sole objective is to achieve a remarkable and sustainable reduction in the poverty level in Nepal from 38% of the population at the beginning of the plan period to 30% by the end of the Tenth plan and further reduce of poverty ratio to 10% in about fifteen year's time. The national long-term vision of alternative energy sector as outlined in Nepal Poverty Reduction Strategy paper explicitly recognizes the role of renewable energy technology in the socio economic development of rural people and aims at "Accelerating economic development, improving living standard of rural people, increasing employment opportunities and maintaining environmental sustainability through

the development of rural energy systems." To realize this long term vision the Tenth Plan has set the objective of renewable energy development as "developing and expanding alternative energy as a powerful tool for alleviating poverty, raising purchasing power of the rural people by developing alternative energy technologies based on the local resources, skill and increasing consumption of alternative energy and reducing dependency on imported energy by lowering the cost of installation through the proper utilization of local resources and means."

The Tenth Five Year Plan (2002-2007) emphasizes on :

- Increasing the consuming capacity of rural families by developing and extending the alternate energy sources, seen as a powerful tool for poverty alleviation.
- Supplying energy for commercialization of the domestic needs and the professions of rural population by developing alternative energy technologies based on local resources and tools.
- Reducing dependency on imported energy source and reducing negative environmental effects by the proper use of resources and tools of local energy.
- Improving and increasing the energy use competency and increasing the
 access of rural people by reducing the cost of development and installation
 of alternative source of energy.

In the current Tenth Five Year Plan, HMG/N plans installation of :

- 52,000 units of solar PV home systems
- 200,000 biogas plants

- 250,000 improved cook stoves in 45 districts of Nepal
- Installation of extra 10,000 kW (10MW) of electric capacity through pico and micro hydro installations within the plan period.

Gender Issues in Energy Policies:

By the time the Sixth Five Year Plan (1980-1985) was ratified, HMG/N's emphasis on, women's involvement in all programs and projects, as well as recognition of the legal impediment to their economic empowerment was quite clear. The Eight Five Year Plan (1992-1997) recognized the need for increasing women's representation at the decision making levels in the government, non government and semi-government sectors, and for monitoring systems for gender discrimination at work. A suitable organization structure for coordination and monitoring of activities relating to women was also envisaged. In spite of the gender mainstreaming exercises performed during the Eighth and the ninth Plan Period, the Tenth Plan does not link gender concern/women's concerns with the energy policy. The energy sector strategy would link alternative energy development with the environment conservation rather than women's drudgery, health and human resource development.

The Tenth Plan "Gender Policy" although states about increasing women's participation in the poverty alleviation and income generation related project, it does not specifically address the important role of women in energy related projects and activities.

At the policy level the issue of women have not been addressed properly. In her advocacy paper "Gender in Water and Energy: Institutional and Policy Aspect: Institutional and Policy Aspect" Chandra Bhadra-Gender Advocate clarified this

situation stating that "Many a times, in the name of gender mainstreaming, policy documents spell the term gender and /or women and forget about it completely during the program formulation and /or implementation". Gender mainstreaming still remains more of rhetoric than practice. If ever gender is considered, it mostly remains a separate chapter/component or an addendum without any link to the main body of policy and program documents.

In 1995, Water and Energy Commission Secretariat (WECS) published its guideline for the incorporation of gender issues in water and energy sector. Recommendations addressing gender issues such as gender sensitization, gender disaggregated databases and commissioning of gender experts in planning and programming have also been included on the 1997 WECS commissioned study on institutional strengthening in rural energy planning and implementation. However the guideline's recommendation has not been successfully practiced in implementation.

Status of Renewable Energy Technologies in Nepal:

a) Micro-hydropower:

various kinds of micro-hydro technologies such as propeller turbines, cross flow turbines, Pelton wheels, multipurpose power units (MPPU), peltric sets, and improvements in traditional ghattas (water wheels) with better system efficiency have been developed in the past to tap water resources more effectively. They are mainly used for agro-processing activities, and electricity generation. By 2002 about 1000 improved ghattas have been installed mainly for agro processing activities, in comparison to the traditional ghattas estimated at 25,000, thus providing a huge potential for its improvement to generate rural energy in Nepal

(CRT/N, 2002). Since January 2003, Improved Water Mill Support Program has been initiated as part of His Majesty's government of Nepal and Netherlands Development Organization Program support to Renewable Energy Sectors to develop and disseminate Improved Water Mill (IWM) as a sustainable energy source in the mid hill and high hill district of Nepal. The program is being implemented by CRT/N and aims to install 4000 IWMs in a five-year period. Till June 2005, 1092 IWMs have been installed under this program (CRT/N, June 2005)

The distribution of micro-hydro units is influenced, among, other things, by proximity to the manufacturer, the extent of development of the region, donor support, and the availability of electricity from NEA. From 1986 onwards the number of micro-hydro plants being installed within accessible areas of the country declined. At present, the NEA has no plans to construct new hydropower plants in the micro range and thus rural areas, especially in the hills and mountains, can only receive electricity through private utility micro-hydro plants. The success of privately summed Micro-Hydro Plants largely depend upon the commercial end use as well as the management capacity of the owner.

By the end of 2004, there are 1474 electrification plants-both pico and micro hydro-with a total cumulative installed capacity installed capacity of about 7998kW serving about 80,000 households (Nepal 2004).

b) Solar Energy Technology:

solar energy has been used traditionally for drying such things as crops, fuel wood, and crop residues. The solar energy potential in Nepal is estimated to

be about 26 million MW. Currently there are two types of solar energy technology in the country: solar thermal systems and solar photovoltaic (PV) systems.

Solar water heaters and solar dryers are the two main types of solar thermal devices. Of these, solar water heaters are popular in Kathmandu. These heaters are suitable for use throughout the country except in those regions that have long and harsh winters where the temperature falls below freezing point. However, because of the high cost, this technology is too expensive for most people.

Solar cookers were introduced by the Research Centre for Applied Science and Technology (RECAST) in 1977 as parboiling cookers. The centre for Rural Technology, Nepal (CRT/N) took further initiative to promote Solar Cookers since early 1990's with the government subsidy channeled through Alternative Energy promotion Centre (AEPC). Because of their high cost, this technology has not become popular in the rural areas. Although various types of solar cookers have been developed to reduce cost, efforts to improve the efficiency of solar cookers have yet to be undertaken.

The solar PV (photovoltaic) systems convert solar energy directly into electricity. The NEA has carried out centralized solar PV-based power system is high, compared to electricity generation by smaller micro-hydropower units.

Lately, private entrepreneurs and non-governmental organizations (NGOs) have been showing interest in the dissemination of solar PV home lighting systems. These home systems are gaining popularity in some areas of Nepal. There are around 57875 PV home systems are installed in the country by the end of 2004 covering 74 districts (Nepal, 2004). Energy Sector Assistance program

(ESAP) of Danish Government and AEPC has supported promotion and installation of household PV systems in Nepal.

c) Biogas Technology:

Biogas technology is considered to be one of the most promising and sustainable source of renewable energy in Nepal. At present most biogas plants are in the Terai, but they are gaining popularity in the hill regions as well. The mountain region is unfavourable for biogas production because of the cold climate. It is estimated that there is potential of 1.3 million household biogas plants in the country. By the end of December 2004, 123, 395 biogas plants of different sizes have been constructed so far in the country benefiting 860,000 persons directly. Annually biogas plants in Nepal save 239,386 tones of firewood and they replace 3,830,000 litres of kerosens every year (Nepal 2004). There are 65 authorised biogas companies involved in the installation of biogas plants in Nepal.

Despite biogas technology being fairly successful at present, a number of technical and institutional problems have emerged that will greatly retard diffusion of this technology. Lack of adequate water supply required for operating the biogas plants in the hills and the mountain areas is often reported as a hindrance to the establishment of such plants. It is also found in some cases that the operation and maintenance of biogas plants has increased the workload for women, as they have to carry more water. Uniformity or standardization of design, installation, construction materials, or supply of accessories has not yet been achieved. Community level biogas plants have not yet been fully developed and promoted. There is still no competent biogas development and promotion unit in the country. Costs are escalating and beyond the affordable limit of poor households. The

interaction between designers and end users in poor, which does not help to improve the design. If all the available dung were to be used for biogas, the potential biogas production would be around 12,000 million m3 per year, which is equivalent to 29 million GJ (about 10% of the present energy consumption) and the use of this dung would not affect agricultural productivity (WECS 1996).

The current state of development of biogas in Nepal is largely the result of incentives provided by His Majesty's Government (HMG/N). a plan for the installation of biogas plants was first incorporated in the Seventh Five Year Plan (1985-90). During his plan period both capital and interest subsidies for the biogas programme were provide3d by the government through the Agricultural development Bank. This subsidy programme is now being continued with assistance of the government of the Netherlands. Cost effective designs, long-term biogas development programs, as well as institutional and credit/incentive mechanisms are required to further exploit their potential.

d) Improved Cooking Stoves (ICs):

Improved cooking stoves have the potential to save the fuel wood used for household cooking. About 11 million tones of fuel wood are burnt annually for cooking alone. Theoretically, it is possible to reduce fuel wood consumption for cooking by 50 per cent. ICS have an efficiency factor in the range of 15 to 30 per cent, whereas the efficiency of traditional mud stoves varies from 3 to 15 per cent. There are various types of ICS and the efficiency of these stoves varies. The amount of fuelwood saved depends among other things on the type of ICS, the condition of the fuel wood, the typed and amount of food prepared, and the type of pots used for cooking. Even with a low performance of 11 per cent fuel wood

savings, estimates indicate that one ICS can save an average of 1 tonne of fuel wood annually.

Since the introduction of ICS in the early 1950, more than 200,000 ICSs have been installed. However, the actual status of ICS currently in use is not available. After the initiation of AEPC/ESAP supported by the Danish Government assisted ICS promotion program in 1999, ICS is gaining popularity in the mid hills of Nepal. From 2001 as of March 2005, 125,498 ICS have been installed in the country under this program in 33 districts (AEPC 2005).

e) Wind Power:

This technology is still in its initial experiment phase. A wind power system as installed in Kogbeni to generate about 20kW of electrical power (annual energy of 50MWh) but was damaged as a result of the poor design. The high installation cost (about US \$6,800 per kWh) did not justify further development (WECS 1994).

Challenges in Integrating Energy and Rural Development:

Attempts to promote rural development to eradicate poverty must include efforts of ensure energy supply in rural area, not an end in itself but as an integral component. Ensuring basic human needs lies at the core of the rural development concerns, and energy services to rural people should be one of the central objectives. Following are the major challenges in Nepal to integrate energy and rural development.

Overcoming lack of scale and difficulty of access

The small scale and wide geographical spread of rural settlements pose particular problems for meeting their development needs.

• Satisfying basic and productive energy needs

The high incidence of rural poverty and low-income levels of the rural people mean that satisfying basic energy needs in much more critical in the rural context.

Meeting energy needs of the poor

The real challenge in meeting the energy needs of the rural poor is, of course, to remove or mitigate the conditions that perpetuate poverty

• Developing energy self-reliance

There are limits beyond which self-sufficiency cannot be pursued; economic development can strengthen rural self-reliance by providing the means to access different energy options.

Managing rural energy transitions

Modernizing rural energy supplies means a higher degree of monetization of rural energy markets and of rural economies as a whole.

Enhancing energy technology absorption capabilities

Rural energy users are required to not only adopt sophisticated technologies, but to also learn to operate, maintain and utilize them effectively. Equipping them to accept such multiplicity of roles is a major aspect of rural energy development.

Ensuring the sustainability of biomass energy source

This call for a close understanding of the interrelationship between biomass production processes and end-use activities, both for energy and non-energy applications, also, more importantly land use changes.

Future Direction for promotion of Renewable Energy Technologies in Nepal:

- Need to encourage financial institutions for formulating effective and appropriate policies, and to increase more and more financial institutions, besides the existing ones to participate in the development of renewable energy sector in Nepal.
- Need to allocate adequate subsidies in a consistent manner to promote the renewable energy sector. Subsidy allocation should be determined by the accessibility of the project area, and the appropriate method of energy generation.
- Need to strengthen education and training in renewable energy, especially end users' training, technical/vocational training and trainers' training.
- Need to emphasize research and Development works.
- Need to execute awareness program targeted to policy makers, government officials, entrepreneurs, social workers, consumers and people at District Development committee and Village development Committee levels.

Renewable Energy Database for Nepal:

General

SL.	Particulars	Description			
1.	Population	23,500,000			
2.	No. of Rivers	More than 6000 with about total length of 45,000 km			
3.	Theoretical potential of hydropower	83,000MW			
4.	Commercial potential of hydropower	42,000 MW (not necessarily environmentally acceptable)			
5.	Hydropower so far generated	600 MW (1.4% of commercial potential)			

6.	Average sun shine hour/day	6.8 with intensity of solar insolation of about 4.5kWh/m2/day
7.	Wind mapping	No
8.	Total Energy Consumption	8.6 million TOE, about 15 GJ per capita per year
9.	Share of Energy Supply :	
	Biomass	86%
	Petroleum	9%
	Coal	2%
	Electricity	2%
	Renewable	1%
10.	Share of Energy consumption	
	Residential	90%
	Industrial	4%
	Commercial	1%
	Transport	4
	Agriculture	1%
11.	Population Coverage by Electricity Supply	
	Central Grid	33%
	Alternative energy	7%

Renewable Energy Technology

SL.	Technologies	Description				
1.	Biomass Based Technologies	•				
	ICS	200,000 including national ICS program and other programs				
	Biogas plant installation	128,223 units				
	Bee Hive Briquette Production (Micro Enterprise)	o 50 units				
2.	Solar Based Technologies					
	Solar PV Installation					
	For Public Utility (aviation, telecommunication, traffic, supply etc.)	1,000kW				
	Solar home System	57,875 units				
	For Water Pumpint System	40 units				

	Solar Cooker (Parabolic Type)	800 units
	Solar Dryer (Box and Cabinet Type)	500 units
	Solar Water Heater (commercial)	35,000 units
3.	Hydro Based Technologies (decentral)	
	Micro-hydro System (3 to 100 kW)	1100 units with about 13,900kW Power
	Pico-hydro Systems (Up to 3kW)	
	Improved Water Mills	1092 under IWM support program of HMG/N since Jan 2003 to June 2005 and around 1000 before that
	Peltric Set	1000 units with about 1,800 kw Power
4.	Wind Based Technologies	
	Installation of Wind Turbine Units	Below 10
	Installation of Wind Pump Units	Below 10

Source: Survey Report

HEALTH SERVICES:

Incidence of chronic illness is quite low. Incidence of acute illness increased from 9 percent in 1995/96 to 13 percent in 2003/04. More than 40 percent of acute illness cases were fever in both years, the proportions of diarrhea episodes in acute cases has decreased by 6 percentage points during the same period. While proportion of acute illness consultations with no-one has remained fairly constant over this period, proportion of consultations with a doctor has decreased and that with a paramedical has increased. The proportion of fully immunized children has increased remarkably from 36 to 59 percent.

Table: 17

Description	(Percent of population)		
	1995/96	2003/04	
Incidence of reported chronic illness*	6.5	5.4	
Incidence of reported acute illness**	9.0	13.0	
Of all acute cases : Fever episodes	43.7	41.2	
: Diarrhea	17.0	11.4	
: Respiratory Problems	5.9	7.7	

Consultation for acute illness with: Doctor	34.8	26.0
: Paramedical	25.0	36.1
: NONE	34.4	33.9
Immunization status of children under five years		
Children fully immunized	36.0	59.4
Children partially immunized	42.8	33.2
Children not immunized	21.1	7.4

Source: Survey Report

Note: *chronic illness is people's suffering from an illness for a long time.

** Acute illness and injuries refer to sickness (other than chronic illness) and injuries.

Overall incidence of chronic illness is 5 percent. 23 percent reported asthma, 12 percent H/L blood pressure, 10 percent heart conditions, 7 percent respiratory, 6 percent diabetes and 3 percent epilepsy. The proportion of heart illness is higher among females (12 percent) than among males (7 percent).

Incidence of chronic illness increases with age, but also with household consumption possibly because of higher reporting for people in richer quintiles. Urban areas have higher than rural area chronic illness incidence.

13 percent is reported to have been sick or injured within the last 30 days in the country. On average, the incidence is about the same between urban and rural areas. But among rural areas, eastern parts of the country (both Hills and Tarai) have higher incidence relative to western parts. Surprisingly, the richest quintile has the highest incidence while the poorest quintile the lowest incidence.

The distribution of acute illness by type of disease. Fever is by far the most common (41 percent) acute illness and is more common among younger ages. Diarrhea makes up for 11 percent of all acute cases, and decreases with age and household consumption, and is more common in rural areas relative to urban areas.

Health Consultations by Practitioner Type:

The distribution of health consultation for acute illness by status and practitioner type. 66 percent of people with an acute illness reported to have consulted a medical practitioner in the country: 36 percent consulted paramedic, followed by doctor (26 percent), Traditional (3 percent) and kaviraj/vaidya (1 percent).

Doctors' share of consultations is much higher in urban areas and among richer quintiles. On the other hand, paramedics' share is higher in rural areas, particularly in the West Mts/Hills, where as many as 57 percent of acutely ill people visit these practitioners. And not surprisingly, the proportion of individuals who do not consult at all is higher among those from poorer households.

Health Consultations by Facility Type:

Health consultations by type of institution. 56 percent of visitors go to private health institution, the remaining go to government institutions. Share of government facility consultations is higher in the Mid-west and the Far-west, especially in the Mts/Hills. On the other hand, proportion of private facility visitors is relatively higher in urban areas and among richer households relative to respective counterparts.

Of all facilities in the country, pharmacy is attended by majority of sick people (40 percent). Others are sub-health post (17 percent), hospital/public health center (16 percent), health post (11 percent), private hospital (9 percent) and others (8 percent). This pattern follow in all regions except in Mountains where the majority visit sub-health post (43 percent).

Among consumption groups, richer quintiles are more likely to visit private health institutions. Poorer quintiles visit government health institutions. Among government facilities, majority of the sick people in poorer quintiles go to subhealth posts and health posts and smaller proportion to hospitals.

Health Expenditures:

Mean expenditure during the last consultation for an acute illness episode. On average, total cost treatment at a government health facility is similar to that at a private health institution: Rs. 698 at government health institution and Rs. 662 at private institution. Disaggregating the total cost, diagnostic and other service costs are slightly higher in private institutions (Rs.136 versus Rs.99).

Table: 18
Distribution of households by occupancy status

	owner	renter	Rent-free	other	Total
Development Region					
East	93.5	3.5	2.3	0.6	100
Central	89.9	7.3	2.5	0.3	100
West	90.4	5.4	3.1	1.1	100
Mid West	92.3	5.0	2.5	0.3	100
Far West	96.1	2.8	1.1	0.0	100
Ecological Zone					
Mountains	95.5	0.5	3.5	0.5	100
Hills	89.5	7.8	2.2	0.5	100
Tarai	93.0	3.8	2.6	0.6	100
Urban	72.0	23.5	3.8	0.7	100
Kath. Valley	62.5	33.1	3.0	1.4	100
Other	77.2	18.2	4.3	0.4	100
Rural	95.5	1.8	2.2	0.5	100
East Mts./Hills	96.8	1.6	1.6	0.0	100
West Mts./Hills	93.6	2.9	2.8	0.8	100
East Tarai	96.2	0.8	2.5	0.6	100
West Tarai	95.1	2.5	1.9	0.6	100
Consumption Quintile					
Poorest	97.3	0.2	1.8	0.8	100
Second	95.5	1.6	2.7	0.2	100
Third	94.3	2.3	3.1	0.4	100
Fourth	91.8	5.9	1.7	0.6	100
Richest	82.8	13.6	2.9	0.7	100
Nepal	91.6	5.4	2.5	0.5	100

Table :19
Distribution of households by construction material of outer walls

(percent)

	(percent)				
	Cement	Mud Bonded	Wood/	Others	Total
	bonded	Bricks/Stones	Branches		
	Bricks/Stones				
	and Concrete				
Development Region					
East	10.8	29.2	33.4	26.6	100
Central	23.6	40.9	14.2	21.3	100
West	25.3	64.1	6.7	4.0	100
Mid West	11.3	72.9	14.1	1.7	100
Far West	9.5	53.2	30.6	6.7	100
Ecological Zone					
Mountains	1.5	90.4	4.0	4.1	100
Hills	18.3	72.6	5.5	3.5	100
Tarai	20.9	16.8	33.2	29.1	100
Urban	57.1	27.7	9.1	6.1	100
Kath. Valley	65.8	34.2	0.0	0.0	100
Other	52.4	24.1	14.1	9.4	100
Rural	10.7	51.4	20.4	17.6	100
East Mts./Hills	5.2	76.7	10.6	7.6	100
West Mts./Hills	7.7	90.8	1.4	0.2	100
East Tarai	11.8	9.2	36.3	42.7	100
West Tarai	21.8	33.4	34.2	10.6	100
Consumption Quintile					
Poorest	3.1	41.0	32.9	23.0	100
Second	4.0	53.6	23.0	19.3	100
Third	8.6	52.0	20.6	18.8	100
Fourth	16.4	51.8	16.6	15.2	100
Richest	48.2	40.1	5.7	6.1	100
Nepal	18.3	47.5	18.5	15.7	100

Source: Tenth Five Year Plan, Govt. of Nepal

Table :20
Distribution of households by construction material of roof

(percent)

	Straw/thatch	Galvanized	Concrete	Tile/	Others	Total
		Sheet		Slate		
Development Region						
East	54.6	30.9	5.3	6.7	2.5	100
Central	23.0	18.8	17.9	39.9	0.5	100
West	21.3	26.7	19.9	26.9	5.2	100
Mid West	45.4	8.4	11.0	26.8	8.4	100
Far West	10.8	1.6	7.2	78.9	1.5	100
Ecological Zone						
Mountains						

Hills	32.9	13.6	0.0	36.2	17.4	100
Tarai	34.1	24.4	13.7	24.9	2.9	100
Urban	30.5	19.0	15.6	34.0	0.9	100
Kath. Valley	8.1	32.8	48.4	10.0	0.7	100
Other	0.0	30.1	64.4	4.5	0.9	100
Rural	12.6	34.3	39.6	13.0	0.5	100
East Mts./Hills	37.1	18.7	6.8	24.0	3.5	100
West Mts./Hills	47.9	22.3	4.0	23.5	2.4	100
East Tarai	33.4	17.8	2.4	37.1	9.3	100
West Tarai	39.5	20.4	3.9	35.6	0.7	100
Consumption Quintile	21.1	11.0	23.9	42.6	1.4	100
Poorest						
Second	61.9	6.5	1.9	27.3	2.4	100
Third	42.8	11.9	4.7	37.6	3.1	100
Fourth	36.3	17.0	4.1	38.6	3.9	100
Richest	24.8	29.3	10.0	32.2	3.8	100
	8.5	33.2	38.7	17.7	1.9	100
Nepal	32.3	21.0	13.6	30.1	3.0	100

Table : 21
Distribution of households by construction material of floor

(percent)

	Earth	Cement/Tile	Wood	Others	Total
Development Region					
East	80.7	10.2	8.1	1.1	100
Central	75.6	19.3	2.5	2.6	100
West	75.8	19.7	3.8	0.7	100
Mid West	87.9	10.4	1.2	0.5	100
Far West	90.6	6.8	1.5	1.1	100
Ecological Zone					
Mountains	93.1	0.0	5.9	1.0	100
Hills	78.4	16.2	3.8	1.6	100
Tarai	78.3	16.7	3.7	1.4	100
Urban	37.5	54.7	2.5	5.4	100
Kath. Valley	27.1	64.2	1.0	7.7	100
Other	43.2	49.5	3.3	4.1	100
Rural	87.7	7.4	4.2	0.7	100
East Mts./Hills	89.5	4.6	5.6	0.3	100
West Mts./Hills	91.1	4.4	4.1	0.4	100
East Tarai	86.7	7.2	4.9	1.2	100
West Tarai	81.4	17.2	1.0	0.5	100
Consumption Quintile					
Poorest	96.9	0.6	2.3	0.3	100
Second	94.3	1.9	3.3	0.4	100
Third	90.4	3.8	4.7	1.1	100
Fourth	81.9	12.6	4.4	1.1	100
Richest	46.1	46.0	4.4	3.5	100
Nepal	79.4	15.2	3.9	1.5	100

Table :22 Distribution of households by source of drinking water

(percent)

					<u>(þ</u>	ercent)
	Piped to	Piped outside	Covered	Open	Others	Total
	House	of House	Well	Well		
Development Region						
East	12.6	19.6	50.7	6.0	11.1	100
Central	20.5	27.8	35.0	4.5	12.2	100
West	14.1	45.0	27.7	2.6	10.6	100
Mid West	7.0	28.3	29.3	8.0	27.4	100
Far West	3.0	29.5	42.9	1.5	23.1	100
Ecological Zone						
Mountains	10.5	61.8	1.2	2.5	24.1	100
Hills	23.5	46.3	4.1	4.6	21.5	100
Tarai	6.2	8.5	74.6	5.1	5.6	100
Urban	53.3	14.3	25.3	3.4	3.9	100
Kath. Valley	78.6	9.7	5.8	3.0	2.9	100
Other	39.3	16.8	35.9	3.6	4.4	100
Rural	6.7	32.5	39.6	4.9	16.2	100
East Mts./Hills	14.1	55.6	4.4	5.6	20.3	100
West Mts./Hills	8.6	54.9	2.2	3.6	30.7	100
East Tarai	2.7	6.1	77.2	5.3	8.7	100
West Tarai	0.3	13.7	79.2	5.4	1.5	100
Consumption Quintile						
Poorest	2.6	25.0	43.5	8.2	20.7	100
Second	5.2	28.7	42.6	5.6	18.0	100
Third	5.7	33.2	41.4	4.6	15.1	100
Fourth	10.8	34.5	38.6	3.2	12.9	100
Richest	39.0	25.8	24.7	3.0	7.6	100
Nepal	14.4	29.5	37.2	4.7	14.2	100

Source: Tenth Five Year Plan, Govt. of Nepal

Table :23
Average number of rooms and average size of dwelling

(percent)

	Average Number of Rooms	Average size of Dwelling (Sq. Ft.)	Average Area of Housing Plot* (Sq. Ft.)
Development Region			
East	3.5	533	1648
Central	3.6	529	1329
West	3.6	559	1570
Mid West	4.1	488	1324
Far West	3.7	529	1552
Ecological Zone			
Mountains	3.7	554	1404
Hills	3.8	556	1446
Tarai	3.8	504	1510
Urban	4.5	584	1448

Kath. Valley	4.8	589	1162
Other	4.3	581	1606
Rural	3.5	521	1478
East Mts./Hills	3.4	551	1473
West Mts./Hills	3.8	535	1442
East Tarai	3.3	492	1488
West Tarai	3.6	508	1523
Consumption Quintile			
Poorest	2.6	385	1265
Second	3.1	447	1388
Third	3.3	497	1438
Fourth	3.9	566	1573
Richest	4.8	686	1614
Nepal	3.7	531	1473

^{*} includes area surrounding the dwelling.

Table :24
Percentage of households with access to various facilities

(percent)

	Electricity	Telephone	Sanitary	Garbage	Toilet
	·	_	System	Disposal	
Development Region				_	
East	29.0	4.0	5.8	2.4	39.4
Central	46.1	11.1	22.2	16.7	39.5
West	48.3	4.2	8.8	5.4	51.1
Mid West	21.6	1.3	5.8	3.3	24.1
Far West	14.2	2.0	2.8	0.0	19.8
Ecological Zone					
Mountains	14.8	0.0	1.0	0.3	36.0
Hills	41.9	9.5	18.7	14.3	48.7
Tarai	36.2	3.8	7.4	3.3	29.6
Urban	87.4	31.9	54.4	45.0	81.3
Kath. Valley	99.1	51.3	98.1	83.0	98.9
Other	80.9	21.2	30.4	24.1	71.6
Rural	27.3	1.1	3.7	0.8	30.3
East Mts./Hills	25.3	2.5	5.5	1.9	39.4
West Mts./Hills	26.2	0.3	2.8	0.2	35.0
East Tarai	27.4	0.5	2.6	0.5	19.9
West Tarai	32.0	1.1	4.7	0.5	29.3
Consumption Quintile					
Poorest	10.3	0.0	2.4	0.3	9.5
Second	16.5	0.1	3.1	0.8	17.4
Third	24.6	0.2	4.2	1.5	25.9
Fourth	40.2	1.7	8.0	4.1	44.0
Richest	77.5	23.3	34.9	27.2	79.1
Nepal	37.2	6.1	12.1	8.0	38.7

Table : 25
Distribution of households by main fuel used for cooking

(percent)

		1		1	, <u>, , , , , , , , , , , , , , , , , , </u>	ercent)
	Wood	Cowdung/Leaves	LPG	Kerosene	Other	Total
		/ Straw/Thatch			Fuels*	
Development Region						
East	65.5	26.8	3.6	2.3	1.8	100
Central	59.5	17.0	14.4	7.5	1.6	100
West	73.1	10.3	8.6	3.8	4.2	100
Mid West	85.4	6.1	2.9	4.0	1.7	100
Far West	92.2	1.4	0.9	2.1	3.5	100
Ecological Zone						
Mountains	99.7	0.0	0.0	0.0	0.3	100
Hills	76.8	1.3	13.3	6.5	2.1	100
Tarai	57.0	31.9	4.7	3.6	2.8	100
Urban	30.6	4.8	40.7	19.9	3.9	100
Kath. Valley	2.5	3.7	64.6	28.1	1.1	100
Other	46.1	5.4	27.6	15.4	5.5	100
Rural	76.7	17.8	1.8	1.6	2.0	100
East Mts./Hills	92.4	1.2	2.7	2.7	1.0	100
West Mts./Hills	94.6	0.3	1.9	1.3	1.9	100
East Tarai	53.4	43.6	0.8	0.6	1.6	100
West Tarai	70.5	20.0	2.3	2.6	4.6	100
Consumption Quintile						
Poorest	74.1	25.8	0.0	0.1	0.0	100
Second	77.5	21.1	0.0	0.7	0.7	100
Third	77.5	18.1	0.4	2.7	1.3	100
Fourth	75.0	15.7	2.0	4.5	2.8	100
Richest	47.9	3.0	31.4	12.2	5.5	100
Nepal	69.1	15.7	8.2	4.7	2.3	100

^{*} Other fuels includes electricity, bio-gas, coal/charcoal and other categories.

Source: Tenth Five Year Plan, Govt. of Nepal

Table : 26 Distribution of households by time taken to reach the nearest facilities for rural & urban Nepal.

(percent)

	Up to 30 minutes	30 minutes to 1 hour	1-2 hours	2-3 hours	3 hours & more	Total
URBAN						
Primary school	98.8	0.9	0.2	0.0	0.0	100
Health post	88.6	8.4	2.8	0.1	0.1	100
Bus Stop	89.2	7.3	3.1	0.3	0.0	100

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Paved road	90.4	4.4	3.3	0.3	1.6	100
Dirt road, Vehicle Passable	98.5	0.9	0.6	0.1	0.0	100
Dirt road, vehicle Impassable	99.0	0.6	0.4	0.0	0.0	100
Local shop	99.2	0.5	0.3	0.0	0.0	100
Haat bazaar	85.1	9.7	4.8	0.4	0.0	100
Market center	87.9	7.6	4.2	0.3	0.0	100
Agriculture Center	65.1	23.4	9.9	1.5	0.0	100
Sajha/Cooperatives	80.8	13.5	5.0	0.7	0.0	100
Commercial bank	85.8	9.1	4.6	0.6	0.0	100
Source of Drinking water	99.5	0.2	0.1	0.2	0.0	100
Post Office	85.6	9.9	4.0	0.5	0.0	100
Telephone booth	93.6	3.2	2.9	0.2	0.1	100
RURAL						
Primary school	89.9	7.6	2.3	0.1	0.1	100
Health post	56.6	20.6	15.7	4.5	2.6	100
Bus Stop	45.9	13.8	14.4	5.3	20.7	100
Paved road	26.7	17.1	17.0	6.7	32.5	100
Dirt road, Vehicle Passable	64.5	7.3	7.9	2.5	17.8	100
Dirt road, vehicle Impassable	94.0	1.4	2.0	1.1	1.5	100
Local shop	83.7	7.0	4.8	1.5	3.0	100
Haat bazaar	57.0	16.7	13.3	6.1	6.9	100
Market center	23.8	21.6	23.2	10.7	20.7	100
Agriculture Center	25.4	21.0	22.8	11.2	19.6	100
Sajha/Cooperatives	24.5	19.8	21.0	9.6	25.2	100
Commercial bank	16.4	16.7	24.0	10.5	32.3	100
Source of Drinking water	98.0	1.5	0.4	0.0	0.1	100
Post Office	56.2	19.5	16.5	4.5	3.4	100
Telephone booth	45.8	14.5	13.6	8.7	17.4	100
NEPAL	10.0	1	15.0	0.7	17	100
Primary school	91.4	6.5	2.0	0.1	0.1	100
Health post	61.8	18.6	13.6	3.7	2.2	100
Bus Stop	53.0	12.8	12.5	4.5	17.3	100
Paved road	37.2	15.0	14.7	5.7	27.4	100
Dirt road, Vehicle Passable	67.6	6.7	7.3	2.3	16.2	100
Dirt road, vehicle Impassable	94.3	1.4	1.9	1.0	1.4	100
Local shop	86.2	6.0	4.1	1.2	2.5	100
Haat bazaar	60.7	15.8	12.2	5.3	6.0	100
Market center	34.4	19.3	20.1	9.0	17.3	100
Agriculture Center	31.9	21.4	20.1	9.6	16.4	100
Sajha/Cooperatives	33.7	18.8	18.4	8.1	21.0	100
Commercial bank	27.8	15.4	20.8	8.9	27.0	100
Source of Drinking water	98.3	1.3	0.3	0.1	0.1	100
Post Office	61.0	17.9	14.5	3.8	2.8	100
Telephone booth	53.6	17.9		7.3	14.5	100
	33.0	12./	11.9	1.3	14.3	100

Table : 27
Distribution of households by time taken to reach the nearest health post.

(percent)

					(P	ercent)
	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Ecological Zone						
Mountains	37.3	26.4	25.5	7.8	2.8	100
Hills	50.9	21.2	17.7	6.1	4.2	100
Tarai	76.2	15.0	7.8	0.9	0.2	100
Urban	88.6	8.4	2.8	0.1	0.1	100
Kath. Valley	93.1	6.9	0.0	0.0	0.0	100
Other	86.2	9.3	4.3	0.2	0.1	100
Rural	56.6	20.6	15.7	4.5	2.6	100
East Mts./Hills	42.3	19.0	26.3	8.3	4.1	100
West Mts./Hills	38.8	29.9	18.4	7.1	5.8	100
RE Tarai	77.7	14.3	7.9	0.1	0.0	100
RW Tarai	64.9	21.1	10.6	2.9	0.5	100
Consumption Quintile						
Poorest	48.9	18.9	22.5	6.3	3.3	100
Second	53.4	21.8	18.1	4.0	2.8	100
Third	58.9	20.0	13.7	4.8	2.7	100
Fourth	61.4	20.0	13.4	3.0	2.2	100
Richest	79.2	13.8	4.8	1.6	0.6	100
Nepal	61.8	18.6	13.6	3.7	2.2	100

Table: 28
Distribution of households by time taken to reach the nearest Agriculture Center.

(percent)

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	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Ecological Zone						
Mountains	9.9	7.3	15.6	18.9	48.3	100
Hills	24.6	16.7	19.5	13.8	25.5	100
Tarai	42.4	28.1	22.6	4.2	2.7	100
Urban	65.1	23.4	9.9	1.5	0.0	100
Kath. Valley	49.9	34.0	13.0	3.1	0.0	100
Other	73.5	17.6	8.2	0.7	0.0	100
Rural	25.4	21.0	22.8	11.2	19.6	100
East Mts./Hills	16.4	9.0	22.2	18.4	34.0	100
West Mts./Hills	13.5	15.2	18.6	16.2	36.5	100
RE Tarai	32.0	34.7	25.6	5.1	2.6	100
RW Tarai	45.3	21.5	24.9	4.3	4.2	100
Consumption Quintile						

Poorest	17.0	23.2	23.4	13.8	22.6	100
Second	21.5	21.1	25.6	13.0	18.8	100
Third	27.4	19.8	22.8	10.7	19.3	100
Fourth	32.4	22.3	20.7	8.5	16.1	100
Richest	52.6	21.0	13.7	4.5	8.3	100
Nepal	31.9	21.4	20.7	9.6	16.4	100

Table: 29
Distribution of households by time taken to reach the nearest Commercial Bank.

(percent)

	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Ecological Zone						
Mountains	4.1	4.8	9.5	13.3	68.3	100
Hills	25.8	8.7	13.9	10.7	40.9	100
Tarai	33.5	23.6	29.2	6.5	7.3	100
Urban	85.8	9.1	4.6	0.6	0.0	100
Kath. Valley	99.8	0.0	0.2	0.0	0.0	100
Other	78.1	14.0	7.0	1.0	0.0	100
Rural	16.4	16.7	24.0	10.5	32.3	100
East Mts./Hills	12.8	7.5	20.5	13.5	45.8	100
West Mts./Hills	3.7	8.6	10.1	13.5	64.1	100
RE Tarai	21.9	28.0	37.1	7.4	5.7	100
RW Tarai	31.7	21.2	25.7	7.3	14.1	100
Consumption Quintile						
Poorest	10.4	17.0	24.5	12.0	36.0	100
Second	13.5	18.1	24.4	9.8	34.2	100
Third	18.5	15.2	23.7	10.3	32.4	100
Fourth	27.7	14.9	23.6	9.1	24.7	100
Richest	57.5	13.2	11.0	4.8	13.5	100
Nepal	27.8	15.4	20.8	8.9	27.0	100

Table : 30
Distribution of households by time taken to reach the nearest market center.

(percent)

	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Ecological Zone						
Mountains	8.5	12.2	23.6	14.9	40.7	100
Hills	30.2	13.1	15.7	11.5	29.5	100
Tarai	42.4	26.3	23.7	5.7	2.0	100
Urban	87.9	7.6	4.2	0.3	0.0	100
Kath. Valley	99.0	0.3	0.8	0.0	0.0	100

Other	81.8	11.6	6.1	0.4	0.0	100
Rural	23.8	21.6	23.2	10.7	20.7	100
East Mts./Hills	12.5	12.8	26.1	17.6	31.0	100
West Mts./Hills	14.0	15.7	13.2	11.8	45.3	100
RE Tarai	30.4	29.4	30.2	6.8	3.2	100
RW Tarai	43.9	29.0	20.4	6.2	0.5	100
Consumption Quintile						
Poorest	18.2	19.5	23.7	13.0	25.7	100
Second	17.6	24.0	24.9	10.9	22.7	100
Third	27.8	18.5	24.2	9.1	20.4	100
Fourth	33.0	21.6	21.0	9.5	14.9	100
Richest	63.6	14.4	10.0	4.5	7.5	100
Nepal	34.4	19.3	20.1	9.0	17.3	100

Table : 31
Distribution of households by time taken to reach the nearest facility for development regions.

(percent)

	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Eastern region						
Primary school	91.0	6.7	2.3	0.0	0.0	100
Health post	66.5	15.2	12.9	4.0	1.5	100
Bus Stop	52.4	9.3	7.8	5.1	25.3	100
Paved road	33.2	17.6	14.9	5.2	29.1	100
Dirt road, Vehicle Passable	65.5	2.3	6.2	3.5	22.5	100
Dirt road, vehicle Impassable	92.0	2.1	1.6	2.9	1.5	100
Local shop	84.1	7.8	5.3	2.0	0.8	100
Haat bazaar	59.6	14.9	12.3	6.1	7.1	100
Market center	33.9	15.5	20.2	11.7	18.7	100
Agriculture Center	31.7	20.2	18.0	10.3	19.8	100
Sajha/Cooperatives	32.0	18.8	17.9	10.1	21.2	100
Commercial bank	24.9	18.4	22.9	7.3	26.6	100
Source of Drinking water	98.5	1.0	0.3	0.1	0.0	100
Post Office	60.8	17.8	13.8	5.6	2.0	100
Telephone booth	54.9	11.6	9.0	7.9	16.6	100
Central region						
Primary school	90.8	7.1	1.7	0.3	0.2	100
Health post	68.8	13.8	13.7	2.3	1.4	100
Bus Stop	62.5	14.1	15.0	3.5	4.9	100
Paved road	45.9	15.5	22.3	6.4	9.9	100
Dirt road, Vehicle Passable	81.4	7.1	6.1	0.7	4.8	100
Dirt road, vehicle Impassable	98.5	0.6	0.6	0.0	0.4	100
Local shop	90.9	4.3	3.8	0.9	0.1	100
Haat bazaar	64.6	16.6	12.5	1.8	4.6	100

	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Market center	37.9	21.2	25.5	7.6	7.9	100
Agriculture Center	33.3	26.3	23.8	8.3	8.4	100
Sajha/Cooperatives	37.3	22.3	22.9	7.2	10.3	100
Commercial bank	37.1	15.6	25.6	8.7	13.1	100
Source of Drinking water	98.8	0.8	0.4	0.0	0.0	100
Post Office	66.7	15.0	14.9	2.5	1.0	100
Telephone booth	62.6	11.9	15.0	6.5	4.1	100
Western region						
Primary school	95.3	4.7	0.0	0.0	0.0	100
Health post	56.6	26.1	11.2	2.7	3.3	100
Bus Stop	50.4	14.4	9.9	5.6	19.7	100
Paved road	39.5	14.8	8.2	6.5	31.0	100
Dirt road, Vehicle Passable	62.8	10.3	5.6	4.3	16.9	100
Dirt road, vehicle Impassable	97.0	0.3	0.5	0.0	2.2	100
Local shop	86.4	8.8	2.3	0.0	2.5	100
Haat bazaar	74.0	14.6	8.6	2.8	0.0	100
Market center	33.6	23.9	13.2	8.7	20.6	100
Agriculture Center	33.1	20.7	16.4	7.2	22.6	100
Sajha/Cooperatives	35.8	19.1	13.4	8.1	23.6	100
Commercial bank	23.6	16.8	16.6	9.8	33.2	100
Source of Drinking water	98.5	1.4	0.2	0.0	0.0	100
Post Office	62.4	22.4	9.5	2.5	3.3	100
Telephone booth	55.0	15.1	10.3	7.7	11.9	100
Mid Western region						
Primary school	86.1	8.5	5.5	0.0	0.0	100
Health post	49.7	21.4	22.3	5.6	1.0	100
Bus Stop	43.3	11.1	17.9	1.2	26.6	100
Paved road	26.3	6.4	5.5	1.6	60.3	100
Dirt road, Vehicle Passable	54.3	2.2	15.1	1.9	26.5	100
Dirt road, vehicle Impassable	87.2	3.8	4.5	1.0	3.5	100
Local shop	71.2	4.8	6.3	3.0	14.8	100
Haat bazaar	59.2	27.9	5.1	0.0	7.8	100
Market center	32.6	11.7	14.5	7.9	33.3	100
Agriculture Center	33.7	16.2	19.3	13.9	16.9	100
Sajha/Cooperatives	33.9	13.0	13.1	6.9	33.2	100
Commercial bank	22.7	10.7.2010	13.1	10.5	42.9	100
Source of Drinking water	96.3	2.5	0.6	0.0	0.6	100
Post Office	51.5	20.5	22.8	3.0	2.2	100
Telephone booth	38.7	13.6	9.6	4.7	33.4	100
Far Western region	25.7		7.0	,	22	
Primary school	93.1	4.6	2.3	0.0	0.0	100
Health post	45.8	28.7	7.8	10.3	7.4	100
Bus Stop			,.5		, , ,	

	Up to	30	1-2	2-3	3 hours	Total
	30	minutes	hours	hours	& more	
	minutes	to 1 hour				
Paved road	30.4	16.0	15.6	9.2	28.9	100
Dirt road, Vehicle Passable	18.7	18.7	10.7	8.4	43.5	100
Dirt road, vehicle Impassable	55.1	6.6	8.7	1.9	27.8	100
Local shop	86.9	1.5	9.1	2.5	0.0	100
Haat bazaar	94.9	1.4	2.5	0.8	0.5	100
Market center	79.2	10.4	0.0	10.4	0.0	100
Agriculture Center	23.0	21.9	21.9	9.5	23.7	100
Sajha/Cooperatives	19.3	11.7	29.7	14.0	25.2	100
Commercial bank	14.9	9.6	20.9	7.7	46.9	100
Source of Drinking water	12.7	8.2	14.7	10.0	54.4	100
Post Office	97.3	2.2	0.0	0.5	0.0	100
Telephone booth	45.0	15.3	15.2	9.3	15.3	100
	24.6	11.5	14.8	12.5	36.6	100

Source: Tenth Five Year Plan, Govt. of Nepal

Table: 32
Summary Statistics

Description	Population					
_	1995/96	2006/07				
Household's access to facility within 30 minutes of travel time						
Primary school	88.4	91.4				
Health post/hospital	44.8	61.8				
Cooperative	25.9	33.7				
Agricultural center	24.5	31.9				
Commercial bank	20.7	27.8				
Haat bazaar	41.4	60.7				
Market center	24.2	34.4				
Paved road	24.2	37.2				
Dirt road vehicle passable	58.0	67.6				
Bus stop	33.1	53.0				

Indian Scenario:

Rural Roads:

The importance of rural road to rural development was recognized in a major way for the first time in the fifth five-year plan when they were included as a part of the Minimum Needs Programme (MNP). It was recognized that roads

play a significant role in opening up backward areas and accelerating socioeconomic development. The programme envisaged the connection, via all-weather roads, of those villages with a population of 1500 and above. In hilly, tribal, desert and coastal areas, the objective was to connect a cluster of villages of matching populations. India has about 600,000 villages of various population sizes. The improvement of the economic conditions among the rural population, a good percentage of which is below the poverty line, hinges crucially on the provision of accessibility by means of such roads. In addition, the construction of rural roads is highly laour-intensive, generating gainful employment for millions of unemployed and underemployed rural people.

Since habitats in the hilly, tribal, coastal and desert areas are sparse, the norms for rural roads in those areas under MNP were revised during the seventh five-year plan. The purpose of the revision was to speed up the linkage of those areas.

MARKETING:

The marketing of farm products in India, by and large, operates under the normal forces of supply and demand. Private trade is the centerpiece of the Indian market mechanism. Government intervention is limited through mainly farm support policies and the promotion or organized marketing of agricultural commodities. To achieve that objective, most of the State governments have enacted the legislation necessary for the regulation of agricultural produce markets.

A number of organizations and institutions currently function to deal with product-and area-specific problems that have a bearing on production, pricing and marketing of agricultural products. The most important of those institutions are the Food Corporation of India, the Cotton Corporation of India, the Jute Corporation of India and the Commodity Boards.

Agricultural marketing is also closely linked to a network of cooperatives at the primary, State and national levels. Marketing cooperatives are operating in almost all mandis. Cooperative societies are functioning in the are of fruit and vegetable processing, sugarcane crushing, cotton gaining and pressing etc. The marketing of agriculture produce through cooperatives has registered a remarkable growth.

At the national level, NCDC plans and promotes programmes for the production, processing, marketing, storage, export and import of agricultural produce through cooperatives. The National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) is an apex cooperative organization dealing in the procurement, distribution, export and import of selected agricultural commodities. NAFED is a central nodal agency for undertaking price support operations for pulses and oilseeds and market intervention operations for horticultural items such as onions, potatoes, grapes, black pepper and red chillies etc. A few other organizations in the cooperative sector are the National Cooperative Tobacco Growers' Federation as well as the Tribal Cooperative Marketing Development Federation of India Ltd which attends specifically to the marketing problems of the tribal areas.

Specialized commodity boards continue to operate for rubber, coffee, tea, tobacco, spices, coconut, oil-seeds and vegetable oils, horticulture etc. The National Dairy Development Board (NDDB) is also engaged in the marketing of

agricultural commodities, Separate of raw agricultural materials like sugarcane, jute, tobacco, oil-seeds, rice, millet, cotton, pulses, cashew nut, cocoa, spices etc. Various organizations are active in the field of agricultural commodity exports, such as the State Trading Corporation, the Cashew Nuts Export Promotion Council, the Shellac Export Promotion Council and the Agricultural and Processed Feed Export Development Authority, all of which also promote/boost agriculture export. The role of cooperatives in the total marketing of agricultural produce, although relatively small, has been progressively expanding.

Success in raising the level of milk production and marketing is ascribed to the Operation Flood Project. Started by NDDB, the project is basically designed to link rural milk producers with urban consumers and is currently in its third phase of implementation. About 70,000 Dairy Cooperative Societies have been organized in 170 milk sheds, involving about 9 million farmer members so far. The export earnings from the livestock sector and related products rose from Rs7920 million in 1988/89 to Rs 16720 million in 1994/95.¹⁴

Rural Education: Universalizing Secondary Education a must:

A firm beginning has been made, complete with a detailed proposal with an outlay of Rs. 81,327 crore during the 11th Plan, by the HRD Ministry to the Planning Commission, for universalizing the secondary education in the country, as it has been done in primary education.

Literally and from the social, economic and political perspectives the statement is valid even today. Around 65% of the State's population is living in rural areas. People in rural areas should have the same quality of life as is enjoyed by people living in sub urban and urban areas. Further there are cascading effects

of poverty, unemployment, poor and inadequate infrastructure in rural areas on urban centres causing slums and consequential social and economic tensions manifesting in economic deprivation and urban poverty. Hence Rural Development which is concerned with economic growth and social justice, improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs becomes essential.

The Government's Policy and programmes have laid emphasis on poverty alleviation, generation of employment and income opportunities and provision of infrastructure and basic facilities to meet the needs of rural poor. For realizing these objectives, self-employment and wage employment programmes continued to pervade in one form or other.

As a measure to strengthen the grass root level democracy, the Government is constantly endeavouring to empower Panchayat Raj Institutions in terms of functions, powers and finance. Grama sabha, NGOs, Self-Help Groups and PRIs have been accorded adequate role to make participatory democracy meaningful and effective.

Rural Housing:

The aim of the State Government is to provide a dwelling for each family giving special emphasis to rural poor and deprived. The on going rural housing programmes will be given a new thrust.

Indra Awaas Yojana:

With a view to meeting the housing needs of the rural poor, Indra Awaas Yojana (IAY) was launched in May 1985 as a Sub-scheme of Jawahar Rozgar Yojana. It is being implemented as an independent scheme since 1 January 1996. It aims at helping below poverty line rural households belonging to SCs/STs, free bonded labourers, widows of next of kin of defence personnel, ex-servicement and retired members of the paramilitary forces and also non SC/ST rural poor by providing them with grant-in-aid for construction of new dwelling units and upgradation of existing unserviceable kutcha houses. 3% of funds are reserved for the benefit of disabled poor below the poverty line in rural areas. The assistance ceiling for each house in plain area is fixed at Rs. 20,000/- and for hill/ difficult areas Rs.22,000. In order to enable fire proof RCC roofed houses to be provided, the State Government provides additionally Rs. 12,000 per house as additional cost apart from its usual matching share to the Central grant. The expenditure towards provision of RCC roofing is met under Adi-dravida Welfare head. Therefore, the unit cost including sanitary latrine under this scheme is Rs. 32,000/in normal terrain and Rs. 34.000 in difficult terrain. 80% of the IAY funds is earmarked for construction new houses and 20% is towards upgradation of unserviceable kucha houses at the rate of Rs. 10,000/- per unit. The funds under IAY are shared between Centre and States in the ratio of 75:25. During the Tenth Plan it has been propsed to construct 1,54,090 new houses and to upgrade 78,970 unserviceable kutcha houses into pucca houses. The proposed outlay during the Tenth plan under IAY under SCP is Rs. 292.89 crores. 15

National Project on Biogas Development:

Biogas Development programme aims to promote an eco-friendly Non-conventional Energy Source with multiple benefits. The role of biogas as a major source of renewable energy has been recognized by the Government of India by including this scheme as an item in the 20 point Programme. Prevention of

deforestation, production of enriched manure and to improve sanitation and hygiene by linking sanitary toilets with biogas plants are the objectives of this rural energy programme. This is a Centrally sponsored programme with a subsidy component of Rs. 1800/- for general category and Rs. 2300/- for scheduled category and Rs. 3500/- for hilly areas. An amount of Rs.500/- is provided in addition for installation and maintenance of the plant to the Turnkey agent. 10,000 bio-gas plants will be constructed during the Tenth Plan. He scheme is fully funded by the Government of India and Rs. 8.05 crores is provided for the Tenth Plan which will be directly released to the District Collectors. 16

Rural Sanitation:

To protect dignity and privacy of the women the Government have launched a new scheme called the Integrated Sanitary Complex for women to provide toilets and facilities for bathing and washing for women under one roof. Each sanitary complex will be spread over approximately 750 sq. ft. with 10 toilets and 3 cubicles for bathing. Each complex has an independent water connection to ensure that the users have a steady and continued supply of water. A pump room and water tank will also form part of the sanitary complex. The operation and maintenance of these sanitary complexes will be the responsibility of the village panchayats and self-help groups. Monitoring committees will also be formed for proper maintenance of these sanitary complexes. An outlay of Rs. 284 crores has been proposed under this scheme during the Tenth Plan period.

To provide more and more sanitation facilities to rural population, generate awareness about health education and eradicate manual scavenging, the total Sanitation Campaign scheme under RCRSP will be continued during the Tenth

Five Year Plan period. The Total Sanitation Campaign envisages a demand driven approach with greater public participation and more emphasis given for IEC activities to create awareness among the rural masses. The project would be implemented in 24 months spread over 3 years in select districts with the ultimate objective of covering 80% rural population under sanitation. The expenditure on this scheme is shared by the Central and State Government on 80:20 basis. An outlay of Rs. 19.15 crores has been provided under the Tenth Plan.¹⁷

This scheme aims to improve the health and sanitary condition in the project area villages through integrated approach to provide safe drinking water and sanitation through participatory and demand driven approach. This programme is being implemented with DANIDA assistance. Water supply works, individual household latrines and institutional latrines are taken up in the project area. The outlay provided is Rs.16.27 crores.

Rural Energy:

Rural electrification is a vital programme for socio-economic development and for bridging the urban-rural divide. Apart from improving the quality of life and aiding activities like education, it is an essential input for rural economic activities such as agriculture and rural industries.

Over 86 Million Indian Housewives, covering nearly 40% of our population, use liquefied petroleum Gas (LPG) for cooking. To add to their comfort, the Government-owned Oil marketing companies, at heavily subsidized rates, is distributing domestic LPG, thus insulting to a very large extent from the steep rise in international prices. Moreover, most of the burden of subsidy, running

to over Rs. 10,000 crore a year, is borne by the Public Sector Oil Companies. What will be ratio of Rural-Urban divide in LPG subsidy?

As the energy crunch looms large, fossil fuel stocks are falling. Many countries are switching to biofuels. India is importing crude oil worth of Rs.1,17,000 crore and bio-diesel production will help is saving foreign exchange. The power of wind is free, no expensive drilling for oil, no bruising the countryside to displace thousands of people for building a dam. Only wind turbine is required to spin power out of thin air. It can be in our backyard or hilltop. While wind blows. Power can be generated. It is essential to harness to potential of wind into an energy source for homes and industries.

India has started with a 5% ethanol blend with petrol, which can be increased to 10&20% progressively. The fact is that Indian sugar mills make ethanol from molasses, a by-product. This circuitous route can never generate the high volumes required, at the right prices. Instead, what is required is that the industry produces ethanol directly from cane, as it is done in Brazil. One tonne of sugar produces 100 kg of sugar (worth of Rs.1000) and 50kg of ethanol (worth Rs.900). But the entire one tonne of sugarcane, if fed directly into a distillery, can produce 500kg of ethanol (worth of Rs.9000).

Rural Healthcare Delivery System:

India has 5,03,900 doctors, 7,37,000 nurses, 162 medical colleges, 143 pharmacy colleges, 3,50,000 chemists, 15,097 hospitals accounting for 8,70,161 beds, 23,000 PHCs, 1,37,000 Sub-centres serving semi-urban and rural areas, and 3000 Community Health Centres.¹⁸ Non-Availability of doctors in PHCs and CHCs is a huge problem in rural India. In addition, PHCs are woefully lacking in

basic medicines and other facilities. Mass health and education cannot be outsourced to NGOs.

There exists a sharp disconnect between urban and rural healthcare in India, and if we continue to ignore this deepening divide, we run risk of destabilizing our socio-economic fabric (Kiran Mazumdar Shaw, 2005). India has 30% of World's TB Population and no new drug during the last 40 years. the Rural-Urban Divide is apparent with a higher elderly population reported in rural households (India Census 2001).

For many people in the remote regions of India, medical help is inaccessible and beyond means. The rural resident has no cash for healthcare, a lack of paying capacity. In fact, the cost of staying alive pushes one-quarter Indians below poverty line. Those who require hospitalization are perennially repaying debts. In fact, rural indebtedness caused by illness is far greater than that caused by crop failure. Developing and maintaining sustainable healthcare delivery for people in the poorest countries is indeed a challenge. There is an urgent need to provide access to affordable healthcare in a sustainable manner.

India have the necessary infrastructure but the services are not operative and not effective. Technical knowledge and an effective public health system also may not be always the answer. Sometimes, understanding the social determinants of disease can help in its prevention (Michael Marmot, 2005). Awareness and "partnership" with the civil society can check disease. The ambitious National Rural Health Mission (NRHM) of the Union Health Ministry has envisaged ASHAs (Accredited social health Activists) as the central component of the Mission, who would be the first port of call for health related demands including

basic curative needs. In addition, the NRHM also seeks to introduce systematic changes in the health acre delivery systems by improving the quality, access and demand aspects of health services. The NRHM has been set up with an allocation of about Rs.6,700 crores, consistent with its NCMP to step up public expenditure in the healthcare from 0.9% to 2-3% of GDP. The success of NRHM depends upon the motivation levels of the Activated Social Health Activist(ASHA).

Rural India – Ongoing Water Crisis:

Integrated Water Resources Management is based on the perceptrion of water as an integral part of the ecosystem, a natural resource, and a social and economic good. India is heavily dependent upon groundwater sources for freshwater (e.g. for 80-90% of domestic water supply in rural areas); much less upobn the other sources-rain and surface water (lakes, tanks and rivers). Failure of governance in managing water resources has led to extensive, unsustainable dependence on ground water. Groundwater accounts for 50% of irrigation and 80% of water supply. India faces a turbulent water future. The only solution is effective management. Demand will have to brought down to match supply, and the focus will have to swing back to surface water supply system. Part of the solution, John Briscoe (2005) said, lies in demarcating clearly water entitlements, de-monopolizing public irrigation departments, and developing transparent water information systems, apart from building public infrastructure.

Rural water supply in India, both the Central and State Governments have achieved, is the largest of its kind in the world and significant progress due to sustained efforts. The country is facing now, three major challenges in the water sector; (a) slippage of covered habitations, (b) water quality problems, and (c)

sustainability of sources and systems. Ground water depletion has aggravated water quality problem (like excess fluoride, arsenic and brackishness), which has resulted in diseases like fluorosis and arsenical dermatitis.

Prior to the green revolution, sustainable use of water resources was commonplace. Water is also necessary for better sanitation, and improved hygiene. Patients from middle class family are suffering from water-borne diseases. India can't uncage its 'tiger' economy or claim to have entered into the 21st century sans better water, sanitation and hygiene makes a powerful plea for an informatics blueprint for integrated water resources planning and management at grass roots level in relation to climate change and sustainable agricultural development.

Living Standards of Habitants of Hilly and Tribal areas of India and Habitants of hilly area and ethnic groups of Nepal is near about same but facility produced by govt. is differ.

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CHAPTER – 3Agriculture in Nepal and India

AGRICULTURE IN NEPAL & INDIA

Except for a small strip of flat land in the south, the topography of Nepal is mountainous. The Himalayan range in Nepal's north has the world's highest mountain peaks, which then progressively taper to the plains, or terai at 100 metres or so above sea level. Consequently, Nepal contains three distinct ecological zones, the mountains, the hills, and the terai (plains). Each administrative district of the country is identified as a mountain, hill, or terai district, in accordance with the ecological zone where it is located. For administrative convenience, each ecological zone has been demarcated on the map as a strip running from east to west, with the mountains in the north, the hills in the middle, and the plains in the south. However, the topography is not uniform within each zone. Thus, in what are administratively hill and mountain districts of the country, there may be both low lying valleys and mountain peaks of high altitudes. Also, the northern part of the terai swells up to meet the hills, with characteristics more similar to those of the middle highlands, than of the southern plains. In the terai, the northern uplands and the flat plains of the south are roughly divided by the highway that runs from east to west, and are sometimes referred to as northern, or inner terai and southern terai. The mountain and hill districts experience a range of climate types, from subtropical through temperate to alpine climates, with a wide variation in temperature and precipitation. The north-western valleys of the country are rain shadow areas, where only minimal precipitation takes place, and mostly in the form of snow. However, monsoon rains are characteristic of the eastern hills and the terai.

Only 7% of Nepal's total population live in the mountain district. The population of the hill district, on the other hand, is approximately 10 million-nearly 43% of Nepal's total population (CBS, 1991). The terai accounts for 23% of the country's total area, and hosts around 50% of the population. Thus, among the three ecological zones, the population density is the highest in terai. However, the hills have the highest population density with respect to cultivated area, whereas the number of people per unit of cultivated land in terai is the lowest in the country. As a result, the terai has continued to attract migrants form the mountains and hills who wish to practice settled agriculture under more favorable conditions.

There has long been movement of the population from highland areas for permanent settlement elsewhere in Nepal. Earlier there was emigration of highlands people from the arid west to the humid east. For better prospects, nepali farmers would then emigrate along the hill corridors with mountains to the north and terai to the south. In 1952, the mountain and hill districts accounted for 65% of total population. In 1991, this share was down to a mere 48% (ibid). This population growth in the lowlands is due mainly to migration from the highlands for permanent settlements in the terai.

Land Use Patterns and Farming Systems in Nepal:

The majority of land use in Nepal is for agrarian and pastoral purposes. Compared to other ecological zones, only a small area of the mountains is put under farming. The total cultivated area in the mountain districts is 275,945

hectares, only 5.3% of its total area. The soil is of arid type, and the precipitation in several districts is low. Within the mountain districts, the productivity is highest in the east, and drops sharply in the western districts. The lands and other natural resources in the mountain districts are also used for livestock rearing, forestry and tourism.

The hills district too are predominantly rural. The agrarian economy accounts for more than 90% of the economic activity, with livestock accounting for 32% and horticulture 14 per cent. As noted earlier, the population density for each unit of cultivated area is the highest in the hills, and has reached a saturation point.

In the terai, agriculture and forests account for most of the land use. Most of the terai was put under cultivation only in the past fifty years, and consequently, the land is relatively fertile. However, the terai has failed to achieve a green revolution so far.

The farming systems in Nepal vary sharply from the higher altitude north to the lower south, and from the wet east to the arid west. In the mountains, potatoes, millets and maize constitute the staple food crops. A variety of vegetables, and fruits (apples and citrus fruits, for example) have been successfully introduced in many mountain communities that earlier did not eat many greens and fruits. However, in rain shadow trans-Himalayan areas and at altitudes above 3000m, only monoculture farming is practiced (the fewer number of crops is due to low temperature, and leached out, poor, soil quality). Wheat or barley is typically sown in November and harvested in June/July the following year. This means that on a

typical farm, one crop of the staple crop variety, such as wheat, oat, barley, buckwheat, is grown, and beans and vegetables are harvested as intercrops.

The major cereal crops grown in the hills are rice, maize, and millet. The growing of paddy is practiced up to an altitude of 2000 meters. Pulses and potato are found everywhere in the hills. There are also some location-specific commercial crops such as tea and cardamom in the east, coffee in central hills, and ginger in the west, that produce important cash income. In the terai, paddy, wheat, and maize are the main cereal crops. The farmers in the eastern terai can grow two crops of paddy in a year. Typical intercropping patterns practiced in the eastern districts could be paddy-wheat-paddy; paddy-maize-paddy; paddy-vegetablepaddy; paddy-potato-paddy; or paddy-oilseed-paddy. The western terai allows fewer crops, with the following combinations: paddy-wheat-fallow; paddymustard and lentil; paddy-mustard-fallow; maize-mustard and lentil-fallow; maize-wheat-fallow; or millet-mustard and lentil-fallow. However, as noted earlier, the agricultural productivity in Nepal's terai remains lower than its under stood potential.2 Generally speaking, the agricultural land owned by marginal farmers is typically less productive because of the steep topography ((in uplands), lack of irrigation, and less amount of manure due to small number of animals that they can maintain.

Food Production, Availability and Security:

Despite the fact that Nepal depends predominantly on agriculture for its gross domestic product (GDP), the country continues to face acute food shortages. The productivity of major crops in Nepal during the early 1960s was higher than that of other South Asian countries. However, by the early 1990s, Nepal's

agricultural productivity lagged behind that of other South Asian neighbours. A number of reasons have contributed to this situation, including a population growth that has outmatched the growth in agricultural productivity. Indeed the agri-cultural productivity is far below the potential level: farming in Nepal has remained subsistence-oriented and use of high-payoff inputs such as fertilizer, improved seeds, and year-round irrigation is low. Also, commercialization of agriculture is yet to take place. Most of its 55 highland (hill and mountain) districts are food deficit, and several of the districts depend on regular external support involving food imports and subsidies provided through the state's food distribution systems. Currently, all sixteen mountain districts suffer from food deficit. However, the eastern districts, on the whole, yield more variety, and tonnage of crops that the districts in the west. The local food production in the western districts is meager, the transport networks are rudimentary. As a result, people may lack access to food despite having the money to purchase it. The state's food distribution systems, managed by the Food Corporation of Nepal (FCN) and the World Food Program ((WFP) have been supplying food in crisis areas for several years, particularly, in the mid-and far western mountain districts. Indeed, higher agricultural yields, cash earning capacity and better markets (with infrastructure) are needed if the western population is to have relief from food scarcity.

Many hill districts do produce crops that are sufficient for the resident population. However, a fair number of districts remain food deficit, with food balance running a deficit of 448,540 metric tones in 2006. In 2002, terai, on the whole, had produced surplus food grains, i.e., the production of food grains exceeded the food requirements of terai residents. Generally speaking, farmers in

the eastern part of terai are able to grow a greater variety of crops, and the cultivation period lasts longer. The region also grows more cash crops, is better connected with markets, and possesses a better infrastructure. However, currently, several districts in terai suffer from food deficits.

The food that marginal farmers produce is sufficient only for 3-8 months, depending on location, type and size of land, and seasonal factors (Secondary assets, off-farm earning opportunities and remittances from family member working abroad are regularly used to tide the food scarce periods). Locally grown farm crops, livestock, and forest products are the traditional sources of food for most of Nepal. A typical diet for marginal farmers consists mostly of maize, finger millet, and buckwheat. Rice, however, is the preferred food and is eaten with vegetables and lentil soup, when available. The animal proteins come mainly from milk and meat; the latter, however, is eaten infrequently. The diet is monotonous, carbohydrate-rich, and protein-poor. The locally made liquor, from millet, rakshi is popular particularly with men. There are several food practices-particularly those that relate to meat and alcohol- that are linked to the community to which one belongs. The leanest months for food availability are the periods before the harvest of crops. In periods of food crises, dhido and aato prepared from millet and maize flour respectively are commonly eaten. Livestock and its products provide a crucial alternative to crop agriculture. The number of livestock is largest in the west. There is a sizable number of sheep, goats and chauri that provide considerable income, as well as supplementing the diet. The number of livestock (particularly a pair of bullock) possessed by a family is taken as an indicator of well being of the family. It is commonly held that those who own a pair of bullocks will not go hungry. For example, the decision to marry a daughter to a

farmer is often based on whether the household has enough able-bodied men, house (that is, well repaired), land, and livestock. In the western districts, yet another sign of prosperity, at least until the recent past, was the collection of fuelwood on the roof of the houses. The older the wood, better the sign that the household has not had to dip into its 'reserves' for survival (with the introduction of electricity, this feature has become increasingly irrelevant). Forest products also complement the household food needs either on a regular basis or during food stress periods.

Agriculture in Nepal:

Agriculture is the predominant economic activity in Nepal. Over 80 per cent of the total population still depends on agriculture for subsistence living. Based on the available information on land use, about 21 per cent of the total land in the country is cultivated. About 1.7 million ha. of agriculture land is rainfed, which accounts for almost 65 per cent of the total cultivated land. On an average, the Terai (Plains) comprises of about 43 per cent of total cultivated land, while the remaining land lies in other physiographic zones. The distribution of agricultural land is highly skewed, with 16.1 per cent of the farmers owning 62.8 per cent of land. Half of the farm holdings are below 0.5 ha., averaging a mere 0.15 ha. Small farmers clearly dominate the Nepalese agriculture.³

Crops grown in Nepal are broadly divided into two groups, namely, food and cash crops. The main food crops are paddy, maize, wheat, potato, millet, barely and pulses. Among these crops, paddy occupies about 55 per cent of the total land. Approximately 80 per cent of the paddy is produced in the Terai region. Maize, millet and potato are basically hill crops. Other food crops are cereals,

tuber crops and pulses. The main cash crops are sugarcane, jute, tobacco, tea, cotton, cardamom, fruits, etc. Most of these crops are produced in the Terai. During the last ten years, some of the hill districts in Nepal have been diversifying the cropping pattern towards the production of cardamom, tea and fruits.

The cropping system, whether irrigated or rainfed, depends on land type and the physiographic region. The major cropping patterns in various types of land in different physiographic regions indicates that the dominant cropping patters in the hills and plains are maize-based and rice-based respectively. Pulses like blackgram, soybean and pigeon pea are also grown on paddy bunds in the lowlands. A typical crops are maize and millet. The same crop rotation pattern is repeated during the subsequent years. This kind of indigenous cropping system developed by farmers in the Middle Hills is suitable for maintaining soil fertility and providing fodder.

Contribution of the agricultural sector in the gross domestic product (GDP) was about 69 per cent in 1974/75. This declined to 52 per cent in 1987/88 and 40 per cent in 1997/98. Most of the cereal and cash crops indicated an increasing trend during the FY 2006-07.

In FY 2007, the output of the principal cereal crops in the country was estimated to be 6.46 million ha with an increase by 2 per cent from the previous year. There is an increasing trend in the production of cash crops such as sugarcane. In spite of increased irrigation facilities, and use of other agri-inputs, the decline or increase in yield rate is determined by weather condition. Adverse weather conditions result in the decline of production of both cereals and cash crops.

The amount of food available per capita has bee declining. While an increasing number of districts are experiencing food deficits, the gap between food requirements and consumption is increasing. The cultivated areas of most food grains have also been increasing.

Different types of chemical fertilizers (organic and inorganic chemicals) are unproportionately used for cultivation. Consumption of chemical fertilizers began to increase progressively after 1980s from about 7 kg NPK/ha/yr. in FY 1979/80 to 25 kg NPK/ha/yr. in FY 1992/93 and 30 kg NPK/ha/yr in 2006-07.

Similarly, the use of pesticides is also on the increase, about 250 types of pesticides, 40 types of herbicides and different fungicides are used to minimize the loss of agriculture production from pests and insects. However, in spite of high doses of agri-inputs, agriculture production increase has not been significant. For example, the yield rates of paddy indicate slight increase from 1.98 mt/ha. to 2.42 mt/ha. With significant variations between 1974/75 to 2006-07. For maize, it has been on the decline form 1.81 mt/ha. To 1.71 mt/ha. During the same period. However, the yield rate of wheat has slightly increased form 1.14 mt/ha. to 1.55 mt/ha. The base year as 1974/75 (100) the yield rate of principal food crops has reached 119 mt/ha. In 2006-07. During this period the food crop area increased by 1 million ha, and total production by 2.5 million tons.⁵

Cash crops occupy a small percentage of the total cultivated area. Over the last few years cash crop production increased between 5.8 and 2.6 per cent during the fiscal year 1994/95 and 1995/96 respectively. In case of principal cash crops (sugarcane, oil seed, tobacco, potato and jute), the area increased by 140 thousand ha with over four-fold production (670 to 2,782 thousand mt) during the period

1974/75 and 1998/99. The yield rate indicating the fluctuations in agri-inputs and climatic conditions.

Land degradation has also negated farm production. Realizing this problem, farmers are shifting from traditional organic farming to chemical farming. Efforts are therefore underway to regulate the use of pesticides through the Pesticide Act, 1991 and Pesticide Rules, 1993. Similarly, Integrated Pest Management (IPM) has been introduced in order to minimize impacts on the agricultural environment. In commercial farming the national average consumption rate of pesticides was estimated to be 650g/ha. Misuse and overuse are the two distinct routes of pesticide pollution. Pesticide residues have been detected in rice, wheat, and pulse grains in godowns and even in milk. In 2006, the Pesticides Registration Office at Department of Agriculture estimated that about 65 metric tons of different pesticides have been imported into Nepal. More than 50 metric tons of obsolete pesticides of hazardous nature, albeit persistent, are yet to be disposed off.

MINERAL FERTILIZERS:

Mineral fertilizers were first introduced into Nepal in 1952. In 1954 fertilizer consumption was 10 tons, and by 1965 it had increased to about 1,500 tons. It was only in 1965/66, with the establishment of Agriculture Inputs Corporation (AIC), then known as Agriculture Inputs Supply Corporation, that organized supply of fertilizers actually began in Nepal. AIC began its fertilizer trade operation with 3,196 tons of fertilizers received as aid from India (2,169 tons) and the former Soviet Union (1000 units). Most of this (2500 tons) was ammonium sulphate (21% N). In the FY 1965/66, the amount of fertilizers sold was 2069 tons. Sale of fertilizers at that time was mostly confined to the Central

Development Region, mostly around Kathmandu Valley and the Surrounding hills, and the Birganj area of Bara, and Parsa districts in the Terai region. The consumption of mineral fertilizers increased from a mere 2069 tons (451 tons N, P₂O₅ and K₂O) in 1965/66 to 185,797 tons (90,277 tons N, P₂O₅ and K₂O) in 1994/95. However, fertilizer usage is still very low in Nepal. As a result, the maximum national average consumption of fertilizer nutrient (in terms of N, P₂O₅ and K₂O) in Nepal was about 35 kg/ha/annum in 1994/95, which is the lowest after Bhutan in the SAARC (South Asian Association for Regional Co-operation) region. Fertilizer consumption has actually declined in 1992-97 years against the projected plan of increase. The Ninth Plan sought to raise the overall average fertilizer nutrients use from 31 to 83 kg/ha/annum by the year 2015 seems doubtful, though not impossible.

There has been no domestic production of any fertilizer in Nepal. All fertilizer requirements are met through imports. Until recently (1996/97), AIC had monopoly over fertilizer imports, including fertilizers received as aid, grant or purchases under loan. Recently HMG has introduced a policy to involve the private sector in supplying the fertilizer. HMG has also issued a Fertilizer Order in order to ensure the supply of quality fertilizers to the farmers.

His Majesty's Government of Nepal has issued the Fertilizer (control) Order, 1999 under which the ministry of Agriculture (MOA) has the sole authority to execute the order. No person shall produce, import or distribute fertilizer which does not comply with the order.

The fertilizer Order is aimed to supply quality fertilizers to farmers. A Fertilizer Advisory Board has been conceived in the Order in order to advise the

MOA in the formulation of policies, priorities, specifications, quality control and statistics. A Fertilizer unit is in operation in MOA to regularize and control the production, import and sale of fertilizer in Nepal.

LIVESTOCK:

The interdependency among the three rural subsectors-farming, animal husbandry and forestry-is unique in the Nepalese hill farming system. Livestock contributes 31 per cent of the total agricultural GDP. It also provides farmyard manure/compost to farmland for maintaining soil fertility and draught power. Estimates indicate about 6.237 million livestock, 3.073 million buffaloes, 5.452 million goats, 0.911 million sheep and 0.605 million pigs in the year 2006-07. In 2008, livestock population has been estimated at 34 million. Over half of them are reared in hills, and one third in Terai. There is an increasing trend to rear livestock, except cattle. Livestock density has increased from 5.95/ha in 1981/82 to 7.4/ha in 2006-07. The production of meat, milk and milk products, and egg has substantially increased from 117.1 thousand mt., 711.5 thousand mt., and 219.6 million respectively in 1982/83 to 185 thousand mt., 1090 thousand mt, and 440 million in 2006-07.

Meat production in FY 2006-07 increased by 3.677 per cent more in comparison to FY 1996/97 and reached 1,80,975 mt. Milk production in FY 1997/98 was 10,48,040 mt, an increase of 3.545 per cent as compared to the previous year. Likewise, egg and fish production both show an upward trend as compared to previous fiscal years. Eggs have increased by 4.615 per cent and fish by 7.181 per cent.

Estimate indicate that about three-quarters of all households keep cattle, while half of them keep buffaloes, goats and poultry. The number of livestock kept on farms has a negative association with the size of holdings. Very small farmers cannot meet the fodder and forage requirements of their animals, resulting in the decline in livestock products. Thus, pressure on public forests and pastures is increasing in most parts of the country. However, this sectors is growing fast. The Agricultural Perspective Plan (APP) argues that the growth rate of the livestock will increase from 2.9 per cent at the base period of the Plan to 6.1 per cent at the end of Plan, i.e., 2015 AD.

Livestock production is dependent on the quality of forests and grazing lands. Open and over-grazing have contributed to land degradation. Uplanders repeatedly graze many of the pasture land in the mountains during winter season, while lowlanders do the same during the summer season. There are also unproductive livestock, which freely graze in the forestland. In sum, the degradation of the land system and increase in the soil loss due to livestock pressure is clearly visible.

FISHERY:

Fish is a major source of protein. In the early 1990s the per capita consumption of fish was about 800 grams. Its production significantly increased from 4.3 thousand mt in 1982/83 to 30.86 thousand mt in 2006-07. Both pond and cage fisheries have been introduced in the Terai and the lakes. Cage fisheries have also been developed in major lakes and reservoirs such as Phewa Lake, Rupa and Beganas Lakes, and Kulekhani hydropower reservoirs. Estimates indicate that 19.8 per cent of the total lakes and 14.7 per cent of the total reservoirs are used for fish

development activities. Farmers also practice fish raising in village ponds and irrigated paddy fields.

Fish production is sometimes hampered by high flood and sediment deposition in the ponds and the reservoirs. Discharge of untreated industrial effluents has also affected the fish population in natural water bodies. Increasing physical and chemical pollution in water bodies is a major concern for sustainable development of this sector.

In sum, agriculture will continue being one of the major sectors in Nepal's national economy. However, Nepal has become a food grain deficit country since the 1970s. The yield rate of most of the cereal crops is on the declining trend, primarily, due to loss of nutrient rich topsoil. Another factor may be the disproportionate use of agro-inputs such as chemical fertilizers and pesticides. Livestock production is also increasing at the cost of land degradation. This phenomenon is visible in the Middle Mountains. The problems of fodder, inferior breeds of crops and livestock, low yields and a poor extension base are still significant. The recently implemented APP has emphasized irrigation, technology and fertilizer input, including a few high value commodities to accelerate the growth of farm products. The APP is designed to accelerate agricultural growth rate from about 3 per cent to 5 per cent per annum and achieve a six-fold increase in the growth of agricultural output per capita from the insignificant growth rate of 0.5 per cent to a rapid 3 per cent. It also focuses on the growth of livestock sector and indigenous techniques of organic farming. Including plant nutrient management. Although, species diversity in agriculture sector prevails, people tend to use only the high-yielding varieties.

The interdependency of agriculture, livestock and forestry has to be closely looked into in order to minimize land and forest degradation. It will help to increase land productivity and reduce the number of unproductive livestock Efforts should also be made to promote the use of organic fertilizers and strengthen integrated pest management.

Marginal Farmers and their Subgroups:

Marginal farmers (taken here as those who have landholdings less than 0.5 ha) are vulnerable to food insecurity due to the poor productivity of land that gets coupled with their small or negligible landholdings. For each subgroup, the situation varies according to where people are located-in the mountains, the hills, and or the terai. This study further emphasizes the difference between those marginal farmers who are located in the west from those in the east. In addition, it discusses the sharecropping and agricultural labor arrangement in Nepal. The sharecroppers and agricultural laborers are concentrated in the terai, and fare worst in terms of food security status.

Table :33

Districts by ecological zone, in eastern and western Nepal

Ecological	Western Nepal	Eastern Nepal		
zones				
Mountain	Dolpa, Mugu, Jumla, Manang,	Rasuwa, Sindhupalchowk,		
districts	Mustang, Kalikot, Bajura, Humla,	Dolakha, Solukhumbu,		
	Bajhang, Darchula	Sankhuwasabha, Taplejung		
Hills	Gorkha, Lamjung, Tanahun,	Ilam, Panchthar, Terhathum,		
districts	Syangja, Kaski, Myagdi, Parbat,	Dhankuta, Bhojpur, Udaypur,		
	Baglung, Gulmi, Palpa,	Khotang, Okhaldhunga,		
	Arghakanchi, Pyuthan, Rolpa,	Ramechap, Sindhuli, Kabhre,		
	Rukum, Salyan, Surkhet, Dailekh,	Lalitpur, Bhaktpur,		
	Jajarkot, Achham, Doti,	Kathmandu, Nuwakot,		
	Dadeldhura, Baitadi	Dhading, Makwanpur		
Terai	Nawalparasi, Rupandehi,	Jhapa, morang, Sunsari,		

districts	Kapilbastu,	Dang,	Banke,	Saptari,	Siraha,	Dhanusha,
	Bardiya, Kailai, Kanchanpur		Sarlahi,	Mahottari,	Rautahat,	
				Bara, Parsa, Chitawan.		

Source: Tenth Five Year Plan, Govt. of Nepal

The majority of the mountain population are counted as farmers in the census. Of the total mountain population, nearly 45% are marginal farmers and landless agricultural laborers and sharecroppers. In the hills, approximately 35% of the population are marginal farmers. In the terai, 65% of the population is involved in farming, and approximately 48% of all farm households in the terai are marginal farmers and agricultural laborers. The marginal farmers cultivate only 7% of the total cultivated area in the terai. Although the cut-off for marginal farmers for this paper is taken as 0.5 ha, the average land-holding of a typical marginal farmer is much lower at 0.21 ha (but the average size of the holding for all farm households in the terai on the whole is 1.23 ha.). Therefore, although the cultivated land is less saturated than the hills, farmers in the terai till a smaller amount of land. However, this is compensated by the better quality of the land and shorter agricultural calendar in the southern plains.

Table: 34 Composition of subgroups among marginal farmers

Subgroups of Marginal Farmers	Mountains	Hills	Terai	Total
Sharecroppers and landless agricultural laborers	19481	159060	467027	645568
Marginal farmers of western districts with <0.5 ha land	337725	1905837	654936	2898498
Marginal farmers of central and eastern districts with <0.5 ha land	333902	1350756	1552085	3206743

Source: Tenth Five Year Plan, Govt. of Nepal

Marginal Farmers: The East-West Divide:

There is a gradient regarding the food security situation in Nepal. Farmers who do not have their own land and practice sharecropping and/or provide agricultural labor are considered as those who are most food-insecure. The marginal farmers in the western region are the next most food-insecure. Due to poor land quality, lack of precipitation, the farmers in the western parts are considered as worse off than the marginal farmers of the eastern regions. The latter have relatively better economic opportunities due to the existence of a more vibrant market economy, infrastructure, and proximity to Indian markets. In the east, the soil is of better quality, monsoons are timelier, and there are fewer shocks to the farming system.

In the mountains, the eastern districts not only have longer growing seasons for staple crops but also the cash crops grown in the area (cardamom and tea) find accessible markets in the neighboring India. To cope with drier and less productive land, the farmers in the western districts have built up large livestock bases. However, because of lack of roads, and access to markets, they are deprived of sustainable trade in livestock and livestock products.

In the higher reaches of the Hills districts, the situation is similar to the mountain districts. On the other hand, for the farmlands located at lower altitudes, the farmers in the west suffer a higher proportion of fragmented landownership, a drier climate, and lower productive land. Within the terai, there is a notable difference in agriculture patterns between the eastern and the western districts, and between the northern highlands and the southern plains. For one, the rainfall pattern in eastern terai is different from the west. The monsoon comes earlier in

the east and is more regular than in the west. The west gets less rain, and a significant part of this is in the winter months. In the terai, the eastern part is better off in terms of infrastructure and market access.

Generally speaking, due to small size of the agricultural land, marginal farmers are often underemployed, and the crop yield from their own land is insufficient to make them food secure for the whole year. Resultantly, they seek cash-income from working as agricultural labourers, and, in non-farming seasons as porters, in caste-based occupations, or as petty goods traders (in fruits, and nontimber forest products). However, with the same landholding size, a typical household in the east may be food sufficient for up to 8 months, compared to 6 months in the west (and less than 3 months for agricultural laborers and sharecroppers). In lean months, marginal farmers also rely on livestock and fruit products (mainly citrus fruits), and other income sources such remittances from family members in India, to maintain food consumption levels. However, during winters in households where young men are away working, women, children and older people are vulnerable to any shock that can harm their stock of food. Compared to the eastern districts, the farmers in the western Nepal have poorer access to markets, and off-farm jobs. The farmers in eastern districts face the problems of increased population pressure, progressive fragmentation of land assets, and progressive loss of soil fertility.

Special Marginal Farming Groups:

There are two special farming groups spread across the terai, who deserve mention. These are the Chepang community who had traditionally derived the majority of their food from forests and common property resources and have now begun to practice settled agriculture, and the hill migrants who migrated from highlands to permanently settle in the terai region. Both groups do not have clear titles to the land they till. There are approximately 15,000 Chepang households and 40,000 migrant farmers from the hills and mountains. They live mostly at the edge of forests (area that have recently been cleared) and do not have land titles. Compared to the regular terai farmers, these two subgroups are worse-off in terms of food security. The could settle only on marginal lands, and the land entitlement is insecure. The forest and other common property resources that were food sources to these communities have become scarce in many areas, and the access is heavily regulated by the government.

Sharecroppers and Landless Agricultural Laborers:

This subgroup is comprised of agricultural laborers and sharecroppers with no agricultural land of their own. The sharecroppers and agricultural labourers earn part of their living by working for a landlord, with responsibilities of sowing, ploughing, and harvesting in exchange for wages. The wages are mostly in kind, usually a share of the crop produced at harvest, (50% is common). The crop share from sharecropping and agricultural labour is able to feed families for up to three months. For the rest of the year, these farmers earn wages from carrying loads and taking up caste-associated works (many of the sharecropping and agricultural labouring households belong to traditional occupational castes such as Kami [blacksmiths], Damai [tailors], and Sarki [leather-workers]). Another source of income for these families, especially in mountain districts, is the collection and sale of fuelwood, mushrooms, and some medicinal herbs. Women contribute by working at the landlords' households. A few men go to India for seasonal work. The number of seasonal migrants is, however, small, as such practice requires

networking and initial expenses (for travel, and stay), which are often not available to the sharecroppers.

The majority of Nepal's agricultural labor force is found in the terai. The agricultural labor arrangement in the terai is complex and has evolved over centuries. This includes several informal systems of contract formation, payment, and patron-client relationships that have been in place for generations. Three features mark the agricultural situation in terai; the agricultural laborers usually come from lower caste groups who have little or no agricultural landholding, labor contracts are informal and made orally, and currently, there are important changes underway in the agriculture sector in Nepal. The agricultural laborers in the terai are of two types, bonded laborers who until recently used to be locked in long-term contractual relationships with rich farmers, and regular agricultural laborers not tied up in long-term contractual arrangements with the landlords.

Social Capital as a Livelihood Asset:

The intra-and intercommunity relationships are put to important use by poor farmers to secure livelihoods and ease food stress periods. The households members take turns looking after community livestock, for example. Also, the intra-community networks help finding jobs in informal economy sectors (portering, petty trading, etc.). Landless sharecroppers and agricultural laborers help each other with labor loans called, 'aicho-paicho', and during stress periods, the households exchange credits, in cash or king. Exchange of gifts between households during times of food scarcity is also common.

There exists a strong base of social capital among the poorest of the marginal groups, the former Kamaiyas, or the bonded laborers. The Kanaiyas

come from tightly knit Tharu communities. Tharu household heads, called ghardhuriya, elect for each village a community leader, called Badghar, or Mahato, carried out in a public assembly called, Khel. Although, the Ghardhuriya decide how things run in households, the Badghar or Mahato look after village affairs, including mobilization of labor for employment, community work, and, religious activities. The leaders also help resolve conflicts among community members. The public gatherings provide an opportunity for community members to exchange ideas and develop cohesiveness.

Patriarchy is the common practice in Nepal. Men dominate decision-making, and are the main income-earners. Among relatively better-off families, women are discouraged from working for others. In Hindu-caste groups, women eat last, once men and children have eaten, and during pregnancy women often do not get sufficient nutrition care. The caste practices are particularly apparent in the terai, with inequity being higher in the west. Owing to highland influences, caste differences are lower among the residents of inner, or northern terai than in southern terai.

Marginal farming communities from lower castes and ethnic groups, in general, practice a less conservative culture than what is standard in rest of Nepal, and there is better gender equity in household decision making. In Tibetan communities, the equity between men and women is better. For example, women of Rai, Limbu, Sherpa communities in the eastern high mountain regions have better access to decision-making in a household. However, men usually make most of the livelihood decisions. They alone migrate to the lower hills, plains, and foreign countries looking for jobs. Women from certain communities (Thakalis, for example), however, have shown exemplary entrepreneurship in running hotels

and petty businesses and can work independently of menfolk. On the other hand, some communities practice polyandry, where a woman gets married to two or more men, usually brothers in the same household. The practice is on the decline, and arguably, had helped landholding and other assets to remain within one household, and not be split.

The farming community, in general, is not well represented in the mainstream national polities. Marginal farmers are poor both in socio-economic and political milieus. There is little representation in governance in local and national polity. Field reports indicate that those few from these marginal communities who receive a senior government post tend to behave like other castes and do not tend to the dalit issues.

Common Problems Faced by the Marginal Farmers:

The common difficulties facing marginal farmers are the low value of their assets, exposure to natural hazards (particularly in highlands), few opportunities to diversify in agriculture and other businesses (or profit from existing diversification), and poor clout in the mainstream politics.

Natural Hazards:

The arid condition of the land and lack of irrigation facilities allow farmers only inadequate production from their farms. In addition, shocks such as heavy snowfalls and hailstorms damage standing crops. Similarly, frequent earthquake tremors, floods, and landslides takes away their cultivable land, and progressively cause soil structure degradation. The growing season is very long in the upper parts of the highlands; as a result, fewer crops can be grown. As noted earlier, the

dry west is poor in both precipitation and soil. In the past, there have been several instances of a late monsoon and prolonged drought also affecting the eastern regions. At several places there has been marked degradation in the quality of natural resources, particularly forests. Communities such as Chepangs who still draw a high proportion of food items from forests are liable to suffer from this trend.

Dearth of Non-farm Job Opportunities:

There is a dearth of job opportunities during the off-season within the farming districts. Tourism is in its infancy. The seasonal migration of men that is common has resulted in the 'feminzation' of agriculture, and psychological problems for those who are left behind.

Infrastructure:

The absence of roads creates crop losses, and hampers production of fruits, e.g. apples, that rot due to lack of access to markets. Lack of modern inputs, improved seeds and technology are additional reasons for poor production and poor income. Remoteness from markets does not give farmers information in time to cushion them from price fluctuations. Many household sell their crop produce at very cheap prices to local merchants, because competitive markets are far away.

Indebtedness:

Marginal farmers' own produce seldom covers their annual food requirements. They need to resort to loans to tide through difficult periods. However, farmers are unable to obtain formal credit since they do not have lands that are acceptable for banks as collateral against loans. Informal credit that comes

mostly from moneylenders is their only option. The households constantly borrows money at high interest rate, which ranges from 36% to 60% per annum. The farmers cannot get loans from the formal system due to a lack of security required for bank loans. The excessive interest rates further aggravate the poverty situation. The banks usually do not provide loans without trustworthy collateral, but marginal farmers do not have trustworthy collateral to pledge. Such a system excludes marginal farmers form benefiting from loan facilities, pushing them into exploitative relationship with local moneylenders and into perpetual indebtedness.

Armed Insurgency in Nepal:

Since 1996, Nepal has suffered the Maoist guerrilla insurgency or 'People's War' that was launched to destroy the constitutional monarchy and with an aim to establish a 'Maoist people's democracy'. Since June 2001, the Maoist uprising in Nepal has intensified, and the country was put under Emergency in November. The clashes continue between the military and the rebels, mostly in the countryside. The armed insurgency has affected the plight of marginal farmers. Many districts are acutely affected. Reportedly, many of the poorer sections (and arguably, marginal farmers) are not only made to play hosts to insurgents but are recruited (including women) into the insurgent groups. The insurgency has left several areas without farming activities, and many forests that served as food and fuel sources for the insurgents have been made off limits by the government.

Coping Mechanisms:

To get bigger yields, sharecroppers and agricultural labourers work on new land once they have finished their regular contracts. During the stress months when there is little farming activity, many farming households (particularly women members)collect forest products such as fuelwood, edibles, and nontimber forest products (mushrooms, medicinal herbs) for supplementing their household food sources and to earn petty cash in local markets.

An noted earlier, taking loans at high interest rates (3-5 rupees per 100 rupees per month) is often resorted to. In more severe circumstance, bhyakur, gittha and or flour soups, dhindo and khole, eating less, and skipping meals are reported. In severe shortages, the farming households may mortgage or even sell land, livestock, and homesteads to raise money or resources for food. Seasonal migration is on the rise (usually by men) to India and other foreign countries to earn cash, usually from selling labour.

AREAS OF OPPORTUNITIES FOR THE MARGINAL FARMERS:

Use of Forests, Pasturelands, and Water Towers to Better the Lot of Farmers:

Nepal has an abundance of pasturelands that is present also in the western districts. Several communities have long traditions of managing large numbers of livestock, such as sheep, goats, cattle (including yaks and dzos). However, there are few markets for livestock and products. Similarly, forests offer a potential source of food and income, especially for those communities who have a history of dependence on forest resources, and can reliably manage their local forests, for example through participatory community forestry committees. The mountains' water sources could also be put to better use to serve the irrigation and electricity needs of the rural households.

Livelihood Diversification:

Both the eastern and the western mountain districts in Nepal have potential for cash crops such as vegetables and fruits. However, it will be important that marginal farmers are able to grow them (during nonfarming seasons for staple crops, for example) and market them for profit. There is also a need to create nonfarm employment opportunities. One possible area is to process and market nontimber forest products (NTFPs). These are currently harvested in an unorganized manner and sent away without processing. Marginal farmers who are involved in collection of NTFPs get lower prices than the actual market price. Both community-based infrastructure to process the collected NTFPs before they are sold to the middlemen and better information on markets will be helpful.

Agricultural Productivity Improvement in Terai:

The terai has the potential to benefit from improved agricultural technologies that would increase the productivity of smaller pieces of land that are typically owned by small and marginal farmers. Land productivity can be increased by increasing cropping intensity through better management of water, increasing the use of improved technologies for increasing yields, and growing high-value crops. Also, a greater diversification of farming systems is needed.

Possibilities for Reducing Poverty and Enhancing Food Security:

Infrastructure Development:

As noted earlier, transport systems are most primitive in the mountains. Several 'east to west' roads have now been constructed in the country. However, it is still difficult and expensive to carry goods from the southern regions upwards into the mountains. More roads that run north-south need to be developed. The government should try to have service posts equipped with medicines and personnel to attend the cases of epidemics and/or provide regular medical treatment to both humans and livestock. Similarly, the tourism infrastructure is still in an infancy stage in Nepal. More peaks, and destinations could be opened to cover a larger area. However, the tourism-design should aid the earning power of marginal farmers.

There is also a need to address the indebtedness of farmers. Formal financial institutions could support the needy farmers by providing credit facilities (low interest, timely delivery of loans that are given against minimum collaterals),

Capacity Building:

The areas of intervention may also include training marginal formers in advanced farming techniques, in processing of select crops, and in marketing of both subsistence and crops. This, added to the impetus of literacy and general vocational training, should be made popularly available. The literacy rate among women members in marginal farmer households is currently very low.

Approximately 30% of the Nepal's total population are marginal farmers, sharecroppers, and agricultural laborers. Most of these live below the poverty line. The marginal farmers work unproductive and un-irrigated landholdings that are unsustainably small. They usually own only a few head of livestock and obtain only small earnings from other sources. Lack of awareness, and a high rate of illiteracy preclude these farmers from opportunities that require information and skills. Also, the low social capital that many marginal household have, due to lower caste status, for example, prohibits certain economic activities and their

representation in mainstream politics. On the other hand, community relationships are regularly used by poor farmers to share assets for farming and cope during food stress periods. However, the value of their asset is not able to earn them fair loans, which they perpetually need. Consequently, they take out loans from local lenders at very high interest rates.

Nonetheless, the eastern part of Nepal has benefited from better agricultural potential, relatively better infrastructure network and closer marketing and labour relations with neighboring India. The eastern region also has more units of services (health, education) than in the west, since the density of population per square km is much higher. Road networks are denser and closer to hamlets than in the western region. The advantages of the terai, such as better markets, roads, cash crops, etc., on the other hand, have often failed to benefit the small farmers there. Several well-meaning policies and welfare programmes for marginal farmers have limited impact, if any at all. This paper recommends higher crop production, equitable use of natural resources, welfare and empowerment for farmers, a better agricultural trade arrangement with India, and welfare policies and programs that are handled sensitively and sustainably.

INDIAN AGRICULTURE:

India is one of the fastest growing economies of the world and is currently the focus of a great deal of international attention. It is the seventh largest country in the world in terms of its geographical size. Today it has a population of nearly 1.1 billion which makes it the second most populous nation in the world. With current population growth by 2025 India may even have caught up with China.

India has a large and diverse agriculture and is one of the world's leading producers. It is also a major consumer, with an expanding population to feed. For this reason and because of its agricultural and trade policy, its presence on the world market has been modest in relation to the size of its agriculture.

Cereals are the staple food in India, providing over half the calories consumed, while pulses are the main protein supplement in the diet. Rising incomes and the influence of globalization have contributed to changes in the diet with a slight decrease in cereals consumption and an increase in pulses, edible oils, fruits and vegetables, milk and meat, which is growing from a low base. In the case of edible oils, the fall in prices after the liberalization of imports further stimulated consumption. However although diets are diversifying, India still lags behind Nepal in terms of daily calorie intake per capita.

Table :35
Food consumption daily calories per capita

	1990-92	1998-2000	2003-05	
Brazil	2860	3001	3223	
China	2696	2917	2957	
India	2396	2463	2512	

Source : FAOSTAT

Agriculture plays an important, though declining role in the economy. Its share in overall GDP fell from 30% in the early nineties, to below 17.5% in 2006. This is high compared to Nepal.

Despite India's economic development, over 70% of the population still live in rural areas. Agriculture is the key employer with around 60% of the labour force, down from 70% in the early nineties. This compares with 44% in Nepal.

The decline in agriculture in the labour force has not kept pace with its decline in the economy. This stickiness has been attributed to low labour mobility and slow growth in productivity in agriculture. In India agriculture value added per worker has grown by only 15% in real terms from 1990 to 2004 by comparison productivity in Nepal.

India's agricultural area is vast with total arable and permanent cropland of 170 million hectares in 2003-2005. it has the second largest arable area in the world after the United States. OECD in it's 2007 agricultural policy monitoring report notes that Indian agriculture is dominated by a large number of small scale holdings that are predominantly owner occupied.

The average size of holding in the late nineties was about 1.4 hectares and continues to decline, as farms are usually divided on inheritance. Out of India's 116 million farmers, around 60% have less than 1 hectare and together they farm 17% of the land. The share of medium to large farms (above 4 hectares) is very small at just over 7% of all holding, but these farms account for around 40% of the land. The implication is that many of the very small farms are subsistence holdings, with low investment and little productivity growth.

Indian agriculture policy is aimed essentially at improving food self sufficiency and alleviating hunger through food distribution. Aside from investing in agricultural infrastructure, the government supports agriculture through

measures including minimum support prices (MSP) for the major agricultural crops, farm input subsidies and preferential credit schemes.

Under the prices support policy, MSPs are set annually for basic staples to protect producers from sharp price falls, to stablise prices and to ensure adequate food stocks for public distribution. In the past guaranteed prices have been below the prevailing market prices, according to the international food Policy Research Institute (IFPRI) in 2007.¹⁰

At the same time subsidies on farm inputs including fertilizers, electrical power and irrigation water have led to inefficient use of inputs and indirectly subsidise income. IFPRI concluded that "support for agriculture (from 1985-2002) has been largely counter cyclical to world prices".

Key agricultural sectors:

India is among the world's leading producers of paddy rice, wheat, buffalo milk, cow milk and sugar cane. It is either the world leader or the second largest producer in eight out of its top ten products. Some of these are widely traded while others are more specialist products.

Table shows the composition of production by value for 2003-2005, when paddy rice was the top sector, followed by buffalo milk and wheat. India is now the largest milk producer in the world and the second largest producer of paddy rice, sugar cane, wheat, cow milk, groundnuts and certain fresh vegetables. But it is also leading consumer. So although it exports these products the quantities will vary depending on the size of the crop and demand.

Table :36

Top 10 Sectors of India & world rank

Commodity	Rank India	World Rank 2005	Production Avg 2003- 2005	
			Billion \$	Million T
Paddy rice	1	2	27.5	129.2
Buffalo milk	2	1	25.2	50.5
Wheat	3	2	10.9	69.7
Cow milk	4	2	10.0	37.5
Fresh Vegetable	5	2	6.6	34.9
Sugarcane	6	2	5.2	250.0
Potatoes	7	2	3.6	25.0
Groundnuts	8	2	3.4	7.1
Pimento	9	1	3.3	1.1
Buffalo meat	10	9	3.1	1.5

Source: FAOSTAT, World rank calculated by DGAGRI

Meanwhile India is the world leader in such specialist products as buffalo milk, spices (pimento) and bananas, mangoes, chickpeas etc., which are important in the Indian diet and are also exported.

Indian agriculture is better than agriculture of Nepal but some crops in Nepal is better than India. Govt. facility in India is better than Nepal.

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CHAPTER - 4

Govt. Policy for the infrastructure facility

Development of Rural Area in Nepal

and India

GOVT. POLICY FOR THE INFRASTRUCTURE FACILITY DEVELOPMENT OF RURAL AREA IN NEPAL & INDIA

The Democratic Republic of Nepal with 147,181 Sq km of total land area has got three main ecological regions viz. Mountains, Hills Terai (the plain area). Mountain region consists 35% of land with 7.3 % of the total population, Hills; 42% land with 46% population, and plain; 23% land with 47% population. Nepal extends between longitudes 80° 4′E and 88° 12′E and latitudes 26° 22′N and 30° 27′N.

Nepal ranges from about 60m to the summit of the world, Mt Everest 8848 m. Altitude-wise, elevation below 1000m covers 36% of area; that of 1000-5000 m range 55% and remaining 9% above 5000m.

Socio-economy:

Nepal's economy is primarily based on agriculture. It is one of the least developed countries in the world. Agriculture sector comprises 65% of total labor force in Nepal. Nepal's per capita income is US\$300. The contribution to the national economy by the agriculture sector is 39% and of industry and services are 23% and 39% respectively. The capital formation of the Gross Domestic Production (GDP) is only 26%. 80% of the GDP is contributed by the private sector.²

The incidence of poverty is greater in the rural areas, in the mountains and in the hills. 44% of rural households and 23% of urban households lie below poverty line. Except kathmandu, urban poverty elsewhere is as high as 34% almost one and half times higher of national urban average. Similarly 56% of mountain, 41% of hills and 42% of Terai households live below poverty line.

The adult literacy rate is 52.7% life expectancy, is 61.9 years, and the annual population growth rate is 2.25%.

It is estimated that totally unemployed population is 5% and underemployed is 32.3% out of the total population. Approximately 300 thousand unemployed people enter labor market every year seeking employment.

Transport & Communication Sector:

The sector is one of the largest sectors in terms of investment in Nepal's development. It has taken up 17.6% of total ninth plan development expenditure and 15.6% of total outlay is planned to invest in the tenth plan.

Against the GDP of the country, transport and communication sector's contribution has been evaluated at 8.6% of total GDP with 6% annual average growth rate.³

Major Policy Framework of the Government for Rural Infrastructure Development:

The local government Units are operated based on local self-government Act 2055 and its related manifold subordinate regulations. The Government of Nepal has promulgated Local Infrastructure Development Policy 2061 to develop local infrastructure needed for rural development. Ministry of local Development is the central Government Agency to take care of this business of liaisoning. There

is an engineering department named the Department of Local Infrastructure Development and Agricultural Roads to backstop local bodies for all kinds of engineering technical matters so ever required. GON has been implementing through these local bodies its present interim target plan for local infrastructure development. More than a dozen foreign bilateral and multilateral donor agencies are also financially and technically assisting local infrastructure development in Nepal for long past.

Nepal Agriculture Perspective Plan:

The 20 years APP has clearly identified that the engine of growth will be agriculture. Agriculture, the largest component of contribution to Nepal's gross national product, dominates employment through its direct and in-direct influences. Over the course of the twenty-year plan, people living below the poverty line is expected to decline by 5.5 million and will be only one-quarter that at present. APP has identified four key component of investment viz. Roads and Power, Irrigation, Technology and Use of Chemical Fertilizer.

Development of a huge network of rural agricultural roads has received top priority in this plan. Agricultural road investment constitutes 20 percent of the priority input investment in the APP. The agricultural road investment in the APP is essential to the high-value commodity strategy i.e. to connect by all weather roads for boosting production of high economic value fruits and herbs production pockets in the hills and mountains for commercial purpose wherever feasible. Likewise installation of shallow tube wells to harness easily available groundwater is taken in to account to enhance irrigation facility at lower cost in the Terai; the granary of the country. The APP offers the opportunity to put Nepal onto a fast growth track that will bring rural prosperity, a rapid decline in poverty, diffused

urbanization, and an improved environment. A total of 6,200 km of roads at the average rate of 500 km of roads per year in rural areas are supposed to be built in 20 years period. A vast employment opportunity has been thus foreseen in the rural people through these infrastructure development activities in addition to the economic development.

Aims of Agricultural Roads:

Agricultural Roads Programs have the following aims:

- To link agro-production pockets to market centres.
- To assist in agricultural commercialization,
- To facilitate smooth transportation of agricultural inputs and implements round the year.

Strategy and Modality:

Agricultural roads development has adopted the following strategy and modality of construction:

- It is based on community participation, and following decentralized approach.
- It is local resource and technology based.
- It is labour-based with minimum use of heavy machineries and capital intensive technology.
- It is environment friendly.
- Its modality of management is aimed at poverty reduction by generating local employment,

- It is focused on strengthening capacity for planning and management of local bodies and community,
- It has set as a strict development prerequisite, by developing District Transport master Plan.

National Transport Policy of Nepal 2001:

The principle objective of the policy is to develop a reliable, cost effective, safe facility oriented and sustainable transport system that promotes and sustains the economic social, cultural and tourism development of Nepal as a whole. The strategies pinpointed are the responsibility demarcation between central and local levels, decentralized governance system by utilizing the local level resources, and private sector involvement. National highways, feeder roads, and roads having special objectives are included in the central roads system. District roads, village roads, agriculture roads, main trails/tracks and urban roads within municipalities and town development board are included in the local road system.

Poverty Reduction Strategy:

Poverty has always been an overriding concern of the planned efforts for development. However it was explicitly stated as an objective only since the sixth plant in 1980, the actions for the approach include policy changes, institutional reforms, and implementing targeted programs and projects. Deprivation and poverty is not just due to lack of income but also due to lack of access to social sectors like education, health, safe drinking water, sanitation facilities and other services. Increased public expenditure in rural areas has not made much impact in reducing rural poverty. Employment creation is expected to come mainly from sectoral programs as expansion of transportation networks and actives. It has to be

growth with equity' or 'pro-poor growth' to ensure an active participation of the poor in the country's development process. As suggested by the paper the GoN has established poverty Alleviation Fund (PAF) to strengthen, coordinate, support and monitor targeted activities directed towards meeting the goal of poverty reduction focusing community preferences.

A 20-years Road Plan (2002-2022):

Ministry of Physical Planning and works has introduced a 20-year road plan for the period of 2002-2022 to cover up to 12th Plan. The road density for 10000 population and 100 square km are 6.68 and 10.4 respectively, which are comparatively lower than other countries in the South Asian region. A large number of road projects were under funded, thus this plan has made an urgent change of strategy to concentrate resources in a limited number of prioritized road projects to ensure that the projects are completed within a reasonable period of time. The five objectives set for the plan are (i) to strengthen political and administrative linkages, (ii) to alleviate poverty, (iii) to develop and utilize social, economic and cultural potentials, (iv) to minimize total transportation cost and, (v)to minimize adverse effects on the environment. A total of 4040 km roads are to be newly built in the plan period. The objectives are to be fulfilled by implementing strategies of connecting all districts headquarters by roads; providing links to district headquarters with adjacent road network of the neighbouring country; providing reasonable level of services, adopting philosophy of stage-construction; adopting environment friendly green road approach; using local resources; minimizing traffic congestion and delays; and improving strategic networks.

Priority Investment Plan 1997:

Department of Roads prepare of 20-years Perspective Plan for the period 1965-85. This served as a guideline for the development of roads. After the expiry of the term of this plan, need for the second plan for the next twenty years was realized. In the mean time a 10-year master plan for the prioritized roads was undertaken again with assistance of the World Bank, called Priority Investment Plan (PIP) for the period of 1997-2007. Recommendations of the PIP are to concentrate on maintenance of the existing road network, with modest expansion, and in particular to connections to some previously unconnected district headquarters. The study regarding the development of rural roads states as a conclusion: This study found no particular evidence to support a continuing extension or the further development of the rural/local road network in areas that already have a basic level of access to wheeled transport. However, the development of low cost rural roads, built with high levels of community participation, may be justified to meet local needs and should be considered on a local areas basis.

Local Self Government Act 1999 and Regulations 2000:

Nepal has two-tier system of governance viz. central and local and three types of local government units, called local bodies viz. Village Development Committees (VDCs) Municipalities and District Development Committees (DDCs). The local bodies are governed by a separate Local Self-Governance Act 1999. Local bodies have institutional responsibilities, rights and power necessary to formulate and carry out plans at local level as per their needs, priorities and demands. There are very clear articles in the Act that stipulate guidelines for

planning and implementing the plans and programs for the poor and for reduction of poverty. Regarding poverty the process and procedures of the implementation of development programs among others are codified in the regulation.

National Strategy for Rural Infrastructure Development 1997:

The Strategy has given attention for the effective implementation of the local level infrastructure development plans, programs and projects. In order to fulfill the objective and goal set by the long term APP, it is essential to have the rural infrastructure such as means of transportation and communication, health and education facilities, provision of safe drinking water, irrigation, availability of energy sources etc. The strategy as its key objective states that the development of basic rural infrastructure country-wide in a planned and sustainable means by adopting the labour-based, local resources-oriented, environment-friendly means and in accordance with the decentralized, participatory approach in line with strategy to the poverty alleviation objectives in national plans in such a way that maximum employment income opportunity is created to local residents.

National Plan for Rural Road Maintenance 1999:

This Plan approved by the GoN with the objective of initiating regular maintenance, repair or reconstruction/rehabilitation of built road infrastructures in the past which have been overlooked at the cost of new construction projects. It is obvious in the mountain country like Nepal that a road is a major capital investment and it is necessary to preserve it by means of an appropriate maintenance done at an appropriate time. Failure to maintain the road properly leads to rapid deterioration with subsequent increase in vehicle operating cost and road accidents and eventually demands for an expensive reconstruction. The

modality of maintenance is primarily labour-based and local resources oriented to create local employment and income. Cost sharing basis of partnership between central government and the local government for funding has addressed and ensured the priority and needs of the locality in selecting the maintenance projects. The objective of delivering desired services regularly from the ever-increasing different category of local and rural road network, approximately 22,000 km to be maintained property is addressed by the Plan.

Local Infrastructure Development Policy 2061:

This policy identifies 7 sectors as the local infrastructure viz. rural transport rural drinking water and sanitation, rural electrification, small and middle size irrigation programs, solid waste management, rural housing and township program and social infrastructures like community buildings, health-posts, schooling building etc. Also the policy clearly demarcated the classification between central and local level programs. For transport accessibility, it has set the basic need of access as 2 hours to a nearby motorable road in the plain Terai region and that of 4 hours in the hill and mountain regions.

Nepal Road Board Act 2002:

It is estimated that Nepal at present has about NRs 70 billion worth of road infrastructure asset to be maintained and operated regularly. The annual minimum financial resources requirement for proper maintenance is therefore calculated is NRs 1.3 billion. The total road network including rural roads are estimated at more than 22000 km. DOR is the responsible government organization for maintenance of strategic roads i.e. highways and feeder roads and local bodies are responsible for local roads. The fund so far made available has not been adequate and the

priority for proper maintenance did not receive due importance in practice inn the past. Therefore the government enacted a special act to mobilize resources autonomously, transparently and effectively by creating its own fund under the act called Nepal Road Board Act 2059 to take care seriously of maintenance to begin with and later to rehabilitation and reconstruction at the minimum cost. It is also envisaged that new roads building can be funded from the fund under this act. The Board under the act has the power and right to impose different kinds of toll tax on the vehicles plying over the roads, to generate road fund.

National 3 years Interim Plan 2062-2065:

Since it was not possible due to political instability, GoN formulated a 3-years interim investment plan in line with 11th National Plan. The interim plan has set for various infrastructure development physical and financial targets.

Rural Road Preset Status, Projects Under implementation and Donors:

Table: 37
Status of Rural Roads in Nepal (as of 2007)

Classification of	Length (km)	Condition of road				Condition of road		
Rural Road	_	In operation	Not in operation					
Earthen	16875							
Gravel	3882							
Blacktop	357							
Total	22105	12176	9929					

Source: Survey Report

Table : 38

20-Year' Agricultural Perspective Plan Target Phase I (first 10 **Ecological** 20 years Target Phase II (second 10 Zone vears) Target years) Target **Physical Financial Physical Financial Physical Financial** Řт Rs million ķт Rs km Rs million million 2805 3570 3400 2805 3400 Terai 0 4875 522 532 1428 Hills 1950 1305 318 4250 1590 2660 Mountain 850 6200 11930 1054 Total 5146 7965 3965

Source: Survey Report

Major Rural Development Programs/projects:

There are a number of projects undertaken by the Ministry of Local Development in collaboration with local bodies i.e. DDCs, having major component of poverty reduction apart from transport infrastructure development. Some of the major rural transportation projects are as follows:

- GoN Funded Block Grant to DDCs, Annual budget (approx.) Rs 1bn, 42% of which is to be spent for capital formation in public works.
- GoN Funded Block Grant to DDCs, Annual budget Rs 8 bn (appox), 70% of which is to be spent for capital formation in public works.
- GoN Funded Block Grants to Municipalities Annual Rs. 40 crore (approx), 70% of which is to be spend for capital formation in public works
- SDC Grant Funded (partial) District Road Support Program (SDC grant) in 6 districts
- GoN Funded Local level and Agricultural Road Project Rs. 1 Bn per annum in all districts
- GoN Funded Remote and Special areas Development Program, Rs 10 Crore per annum in 25 remote mountain districts.
- DFID Funded Rural Access Program (DFID grant) GBP 17 million in 7 districts
- WFP Food Grant Funded Rural Community Infrastructure Dev. Works, food for work in 22 districts
- ADB loan funded Decentralized Rural Infrastructure and Livelihood Project, USD 50 Million in 18 districts.
- WB Grant funded Rural Access Improvement & Decentralization Project, USD 32 million in 30 districts
- GoN funded rural Road Maintenance fund.
- GoN/SDC funded Trai (Suspension) Bridge Construction and Maintenance Project (SDC grant) in 54 hill districts.
- ADB/DFID/OFID/HMG funded rural Reconstruction and Rehabilitation Sector Development project, USD 106.8 million in 20 districts
- GoN funded Roads Board Fund Rs 25 Crore per annum for rural roads maintenance and upgrading.

- Finland Grant/Nepal funded rural village water resourced management project, Euro 11.4 million.
- Finland Grant/Nepal funded Rural Water Supply and Sanitation Project Western Nepal, Euro 9.7 million.

The World Bank, The Asian Development Bank, UK's Department of international Development Japan international Development Agency, Swiss Development and Cooperation, Finland, OPEC Fund for International, IFAD, and UN World Food Programe are the major development donor partners in rural infrastructure development efforts of Nepal.

Helvetas, GTZ, are among the major International Nongovernmental Organizations who facilitate Nepal's rural development.

WSP (British), SKAT (Swiss), ITECO(Swiss), Fin consulting Group (Finland), Ramboll (Finland) are the existing International consulting firms associated in rural infrastructure development consultancy business at present.

Nepal Rural/Agricultural Roads Technical Standards:

Table : 39

SL.	Design Parameters	Class 'A' District Road		Class 'B' Agri and Village Road	
DL.	Design Farameters	Hill	Terai	Hill	Terai
	Design Capacity-in both directions (Vehicle per day/T.U per day)	200	400	100	200
		(400)	(800)	(200)	(400)
2.	Design speed (km per hour)	20	40	15	30
3.	Right of way, either side from the road center (m)	10	10	7.5	7.5
4.	Formation width (m)-includes 0.6 m drainage & 0.4 m parapet which will be kept wherever needed.	5.0	6.0	4.0	4.5
5.	Carriageway width (m)	3.0	3.0	3.0	3.0

6.	Shoulder width, either side (m)	1.0	1.5	0.5	0.75
7.	Paving the earthen surface by	Broken stones or Gravel	Grave ling or Brick soling	None	none
8.	Minimum radius in horizontal curve (m)	10	20	10	20
9.	Maximum average gradient (%)	8	5	8	5
10.	Maximum gradient (%)	12	7	12	7

Source: Survey Report

Local Government Institutions:

Nepal has been divided into 75 administrative districts. Rural level Infrastructure development implementation is the local government's responsibility. As a part of local Bodies in Nepal there are 75 DDCs, 3915 VDCs and 58 Municipalities. The physical infrastructures thus planned and implementation technology has to address appropriate Nepal's geo-eco-climatic engineering context.

Nepal has now decided to opt for federal governance system from the present unitary one. It is estimated that perhaps more than a dozen provinces (federal states) will be constituted after a new constitution is promulgated by the constituent assembly. New modern towns and cities are inevitable to develop in commensurate with the upcoming new political administrative structures.

Potential and Prospect of engineering consulting opportunity:

With the success of the last democratic movement, there is great hope generated among the people of Nepal and a great opportunity is also entailing. Almost all big political parties have given emphasis and committed for the rapid economic development of the country.

The significant political commitments made by leading political parties/concerned authorities of Nepal can be viewed briefly in the figures below in response to infrastructure development of the nation that ultimately creates an enabling environment and ample of opportunities for engineering consultancy in the country.

NEPAL: RURAL POVERTY ALLEVIATION UNDER CHANGING ECONOMIC CONDITIONS

Although there were some achievements in area such as transportation, communications, health, drinking water supply and literacy, the economic achievements were vague and disappointing on the whole. Owing to the low growth rate in gross domestic product (GDP) the per capita income only recorded a marginal increase during the period. The average annual growth in GDP was 3.4 per cent whereas the growth in per capita income was a mere 0.8 per cent. Foodgrain production, which was around 3 million tons in 1961/62, reached 5.7 million tons in 1989/90 (an average annual growth rate of only 2.1 per cent) mainly through expansion in area. Only 21 per cent of the total land under cultivations is irrigated.⁵

Taking into account the experiences of several developing countries which indicated that a high economic growth rate would not automatically benefit the population, the eighth five-year plan (1992-1997) envisaged a new dimension in development approach. That plan took as its broad objective social and economic enhancement through tackling the challenges of economic stagnation, poverty

alleviation, reducing structural anomalies, and controlling environmental degradation and rapid population growth.

The major objectives of the Ninth five-year plan were sustainable economic growth, poverty alleviation and the reduction of regional imbalance. Amidst economic stagnation, environmental degradation and rapid population growth, the Ninth five-year plan set a target of providing job opportunities to 1.4 million people, thereby reducing absolute poverty from 49 to 42 per cent of the total population. The government programme on poverty alleviation did not distinguish between urban and rural poverty. The major part of the programme has been directed towards the alleviation of massive poverty at the rural level.

The plan further envisaged the implementation of various target grouporiented sectoral and specific programmes such as production and employmentgenerating activities, development of physical infrastructure, resettlements of the poor, and the provision of health services, education opportunities and safe drinking water facilities. Other activities included a small farmer development programme, production credit for rural women, leased forestry, labour-intensive public construction works and irrigation programmes.

Various institutional efforts were also envisaged in that direction. The plan placed emphasis on mobilizing the private sector as well as non-governmental organizations (NGOs) in implementing poverty alleviation programmes. Decentralized local-level planning was also initiated with a view to empowering local government units at the district and village levels. At present, a Participatory District Development Programme is being implemented in 20 of the total 75 districts of the country. The project envisages the strengthening of the planning capability of the District Development Committees (DDCs) and Village

Development Committees (VDCs) through the application of a participatory approach in the formulation, implementation and management of local-level development projects and assistance in spatial as well as attributed database management.

POVERTY ALLEVIATION PROGRAMMES:

The main programmes that have been implemented in order to alleviate rural poverty under the various Five -Year Plan are detailed below.

A. Subsidy and Transfer Prgrammes:

Subsidy and transfer programmes basically include: the food subsidy programme of the national Food Corporation (NFC), a government fertilizer subsidy through the Agriculture Input Corporation (AIC), and government interest and capital subsidies programmes through the Agriculture Development Bank. The NFC food subsidy programme provides food at subsidized prices to people living in remote areas where food is not available at reasonable prices.

The government has provided a fertilizer subsidy I the form of a transportation subsidy and a price subsidy through the Agricultural Inputs Corporation (AIC). Similarly, with the aim of encouraging productive investments in agriculture, especially in irrigation, cash crops and livestock, the government has provided interest and capital subsidies through the Agricultural Development Bank.

B. Integrated rural development projects:

Although the integrated rural development projects (IRDPs) were not specifically designed for poverty alleviation, many poor people have benefited as the projects have been implemented in rural areas where poverty concentration is

high. Basically the projects focus on small farmer development though information, training and research on agriculture, community forestry, drinking water supply, irrigation, women's development, creation of village funds etc. Currently, four projects are underway within the Local Development Ministry. Although no impact studies have been conducted, the projects have successful in strengthening sectoral programmes, creating infrastructure an, consequently, poverty alleviation in the rural communities.

C. Food and feeding programmes:

In Nepal food and feeding programmes include two projects: (a) the Nutritious Food Programme and the Joint Nutrition Support Programme. Under those projects, onsite food distribution to children aged under six years and pregnant and lactating women, primary school feeding programmes to encourage attendance, and institutional feeding programmes in orphanages and nurseries have been undertaken. The total number of beneficiaries reached so far is nearly 200,000.⁶

D. Targeted credit programmes:

In the public sector, there are four main credit programmes: the Small Farmer Development Programme (SFDP), Production Credit for Rural Women (PCRW), the Intensive Banking Programme (IBP) and Rural Development Banks (RDB). The basic components of all four programmes are community development, income generation, provision of credit, group activities and participation in self-help activities.

E. Employment programmes :

The Food-for-Work Programme and a Special Public Works Programme (SPWP) are two major employment programmes being implemented in Nepal. The major objective of the Food-for-Work Programme, which has been in operation in Nepal since the early 1970s, is to build rural infrastructure and to provide employment for the rural poor, especially during the off-farm season. It pays wages in food and has therefore become attractive to the poor. In the past three to four years, the programme has been successful in generating about 1.5 million man/days of work per year. SPWP has mainly been involved in small irrigation construction and maintenance works. Although the programme has created less than 1,400 fulltime construction projects per year (employing about 20,000 rural people, it has great potential for expansion, both in terms of area and activities.

F. Skills -generating programmes:

Training provided by the Training for Rural Gainful Activities (TRUGA) and the Labour Supply Centre are the main activities. TRUGA basically provides training which enhances the skills of the rural poor, unemployed women, seasonal agricultural labour, the handicapped and practicing artisans.

G. Special Programmes for Backward ethnic communities :

The eighth five-year plan set a target for carrying out special programmes for poverty alleviation among backward ethnic and oppressed groups through income-generating activities. Emphasis was given to elevating them out of the poverty trap and deprivation. The plan allocated funding through DDCs for the improvement of the socio-economic status of such communities. The government

was also interested in supporting those local NGOs working to improve the conditions in backward ethnic communities.

H. Settlement of landless people:

The main purpose of the programme for the settlement of landless people is to use surplus land for the poor in a systematic manner in keeping with the parameters of social justice. Since 1992, the Landless Settlers Problem Resolution Commission has been entrusted with implementing the programme.

Kamaiya abolition programme:

The Kamaiya (agricultural labourers bonded by an annual fixed wage) Abolition programme includes two activities: (a) the abolition of the Kamaiya system and the settlement of the Kamaiya labourers, and (b) skills development and training for Kamaiya women. The objective of the government is to abolish the Kamaiya system within two years. Under the programme there is provision of carrying out various subprogrammes for settlement and employment. There is also a provision for establishing a Kamaiya loan relief fund for the improvement of the socio-economic status of Kamaiya and for providing alternatives ways of living. The involvement of NGOs and other private sector organizations is also considered to be a major component contributing to the programme.

I. Agricultural growth and rural poverty:

Nepal is predominantly an agricultural county. The government has adopted an agriculture perspective plan as 20-year priority focused forward-looking strategy. The plan aims to accelerate agricultural growth by about 5 per cent and increase agricultural income from 0.5 to 3 per cent over that period. The meet the target, the plan has identified certain priority inputs as well as outputs. In

the case of inputs, the plan envisages: (a) the promotion of increased use of chemical fertilizer by farmers; (b) the construction of small irrigation projects such as tubewells and small canals; (c) the construction of agricultural roads and rural electrification; and (d) the promotion of appropriate agricultural technology. The plan also envisages encouraging farmers to change their farming pattern from low-value crops to high-value agricultural practices such as the production of high-value commodities, as well as milk, meat and egg production and other types of agri-business through the implementation of a "prioritized productivity package".

RURAL INDUSTRIALIZATION AND INFRASTRUCTURE:

A. Rural Industrialization:

Industrial development in Nepal is still in its infancy. The major industries are in the public sector. The private sector has been slow and inclined to invest in industries which have offered quick returns. As such, the contribution of the industrial sector to GDP is still less than 10 per cent. Because of the low level of industrial development it has not been possible to divert the excessive population pressure from agriculture to other viable economic activities. The government has been trying to create a congenial environment for private sector development though the implementation of an industrial policy which includes the Industrial Enterprises Act, the Foreign Investment and Technology Act and the Foreign Investment and One-Window Policy. Efforts have been made to attract much needed foreign investment and technology through a liberal and open policy.

In Nepal, where 82 per cent of the population depends for its livelihood upon cultivable land which constitutes only about 20 per cent of the total land area, the need to redirect population pressure from the agriculture to industrial sector is critical. However, despite a history of five decades of industrial activity, the level of industrialization in Nepal is still very low. In fact, the contribution of the sector to the national economy has been minimal. The causes of slow industrial development have been: (a) the low level of infrastructure development (transport, communications and power and water supplies); (b) the concentration of investment in urban areas of the Kathmandu valley and eastern terai; (c) a limited market; (d) inadequate forward and backward linkages in the industrial sector; (e) the unavailability of raw materials; (f) problems with maintaining product quality; (g) policy instability; (h) excessive protectionism an administrative control; (i) complicated licensing procedures, unwarranted delays and a lack of transparency in decision-making. Consequently, it has not be possible to attract private and foreign investments in industrial development.

In view of the poor performance of the public sector industries, the eighth five-year plan focused on privatization. In order to correct such distortions, the government formulated comprehensive policies for industrial development for inclusion in the eighth five-year plan. The policies were mainly guided by the concept of economic liberalization and an open market system, with the role of the government being confined to acting as facilitator and to encouraging private and foreign investments. Thus, industrial development in Nepal has undergone a significant change since 1991, from being dominated by inward-looking public enterprises to an outward looking private sector-led policy. With the enactment of the Industrial Enterprises Act 1992, changes were introduced that encouraged maximum private sector participation (both domestic and foreign) and a minimum of government interventions.

Various government agencies have been implementing programmes aimed at the development of rural industry through skills development training, promotional activities related do design, technical support, consultancies, credit, extension activities such as the establishment of new industries, joint ventures, and the provision of inputs and other services such as financial support, supplies of raw materials, equipment and spare parts, and development and marketing.

B. Rural infrastructure:

By the end of 1995/96, the road network had been extended to a total of some 12,000 km. however, of the total 75 districts, 15 districts in the hill and mountain regions are still without road links. Most of the existing roads are earthen-surfaced and thus can only provide fair-weather transportation services. Although the communication network is modern and links the capital city with all district headquarters, it is beyond the access of the majority of the population.

Impact of new reforms policies on rural poverty:

In view of the weaknesses in past poverty alleviation programmes, the government felt it was essential to direct all sectoral programmes towards poverty alleviation. The growth approach to economic development and the concept of central level planning and programming for the poor was not able to promote the living standards of the poor. Because that approach lacked participation by the people, a more comprehensive programme was designed and implemented in cooperation with the local population.

The clear identification of the poor and deprived, such as kamaiya and backward ethnic groups, together with programmes such as "the abolition of the kamaiya system and their resettlement" and "special programmes for backwards

ethnic groups" have had a positive impact on poverty. In addition, the provision of credit to women and marginal farmers has helped to raise the socio-economic status of women by enhancing their creativity and productivity.

A significant change in approach has been made with the emphasis now being placed on social mobilization, in order to organize and empower the poor, in place of the delivery approach adopted by past poverty alleviation programmes. This also enhances the development of self-governing local level institutions. A requirement for institutional arrangements in the implementation of various poverty alleviation programmes has been perceived, in that context, the establishment of a trust fund was proposed as a way to coordinate all poverty alleviation programmes as well as provide loans to user groups and NGOs.

The involvement of NGOs in the implementation of poverty alleviation programmes is an another major departure from past policy on anti-poverty programmes. Hence, the establishment of a high-level coordination committee, represented by the authorities concerned, has been undertaken in order to coordinate the activities of RDBs and NGOs engaged in credit mobilization in rural communities.

Recognizing that the productivity drive was a way to develop the nation, the government pursued a policy of privatization and liberalization in which competition among various groups would enhance productivity and efficiency. The policy of selecting at least one VDC from each of the five development regions in which to implement a model programme with adequate resources and necessary technology for promoting the living standards of the poor served to enhance the socio-economic status of the local population as well as enable the model to be developed for gradual implementation in additional districts.

Institutional reforms which allow the intensification and diversification of agriculture is another major step in this direction. In that connection, the government has prepared a comprehensive Agricultural Perspective Plan which covers the next 20 years.

The commitment by the government to making the village the development unit and to increasing direct participation by the rural population in rural development programmes, by making the local authorities more autonomous and resourceful, was a major step towards achieving the objective of poverty alleviation.

Although the impacts of the programmes related to poverty alleviation have yet to be reviewed, it has been observed that those programmes have only made a limited impression on the hard-core poor. One of the major reasons has been the lack of an effective institutional system for identifying the poor and making them the target of such programmes. The poor often live in remote and inaccessible areas where access to public services is difficult. Another reason, resulting from illiteracy and a culture of silence, is the lack of access to such services as well as subsidies provided by the government to the poor.

Nepal's Seven Party Alliance (SPA) government and communist party of Nepal (Maoist) signed a Comprehensive Peace Agreement (CPA) on November 21, 2006 promising to end the decade-old maoist insurgency and begin an inclusive, secular, peaceful and democratic nation-building process. The CPA thus paved the way for arms and armies' management under the supervision of the United Nations, preparation of an Interim Constitution, formation of an interim legislature and an interim government with the inclusion of CPN (Maoist). This government would then hold the Constituent Assembly (CA) elections before mid-

June 2007. The CPA was signed after protracted negotiations following the success of the April (6-24) mass upsurge that rolled back king Gyanendra's direct rule. The king reinstated the parliament and appointed G.P. Koirala as Prime Minister. A subsequent House of Representatives (HOR) declaration removed the king as Supreme commander-in-chief of the Nepalese army (NA), made his income taxable, cut his power regarding the appointment of their to the Nepali throne, left his role to be decided by the first meeting of CA in June 2007, brought the NA under civilian control and declared the state secular. These changes have substantially undermined the historic identity of Nepal built on monarchy, Hindu state, Nepali language and cultural nationalism.

On the surface, the SPA and CPN (Maoist) harbor many dissimilar and often contesting visions about the nature of the state, the status of monarchy, citizenship, modality of elections, economy, nationalism, foreign policy and power-sharing arrangements. These continue to pose as barriers to cooperative action. The governmental power of the SPA is weak to prevent its constituent units' resistance, overcome sectarian violence and consolidate national security, economic recovery and political development without international cooperation. The conflict-affected groups--ethnic and indigenous people, Dalits (oppressed people), women, Madhesis (people of southern plains) and youth nurse a feeling of deprivation and demand a legitimate space in decision making. Pro-King forces are questioning the legitimacy of the 8-party establishment (SPA and Maoist) and dubbing its actions doctorial. New polarizations between the left and the democratic forces, between republican and monarchist forces and between nationalistic and subsidiary identities is certain to make the transition to democratic peace difficult.

Massive poverty among the masses coupled with corruption associated with a culture of impunity among powerful economic and political actors flag the human rights condition of the majority of people. These call for economic reforms and engage the conflict-affected people in rebuilding the societies. Spiraling violence is drawing the concerns of the UN and great powers in the volatile geopolitics of the nation. The capacity of civil society, media and professional groups to generate public demands does not at all match the ability of the torn state. It is struggling even to fulfill basic needs of the people. The pressure of the CPN (Maoist) and subsidiary groups for state restructuring has put the regime further in a dilemma as to how to beef up the state's presence in society for security and authority and still enable the political leadership to renew its legitimacy through free and fair CA elections.

International community has to be strategically oriented in capturing the synergy of the social contract, economic revival, human rights, democratic consolidation and peace building so that the Nepalese are enabled to shape their shared future. Peace and reconciliation at various tracks can alone expand the development space for the donors, enable the governance institutions to meet their commitments and steer the regional and international cooperation in the right direction.

Political Situation:

In the year 2006 Nepal marked a political transition from assertive monarchy back to a multi-party democracy. The most significant development is the success of the April movement (6-24) led by the SPA, the CPN (Maoist) and civil society groups that overturned king Gyanendra's direct rule installed of February 1, 2005. subsequently, the king appointed Nepali Congress (NC)

President G.P. Koirala as Prime Minister. On May 18, the HOR claiming itself a sovereign and supermen body made a proclamation which made the king virtually powerless in governance. A judicial commission set up under the chairmanship of former judge K.J. Rayamajhi to investigate the "suppression of the movement" has submitted its report ad recommended action against the culprits. Similarly, an Interim Constitution Draft Committee (ICDC) headed by former judge Laxman P. Aryal handed over the draft statute to the government. An 8-point (June 16) pact signed between the SPA and the CPN (Maoist) spelled out the provisions to implement Ceasefire Code of conduct signed on May 26, expressed commitments to human rights, democracy, competitive politics, transitional arrangements, roles for the UN in the peace process and structural reforms in various institutions of governance.

The framework of a CPA signed on November 21, brought the decade-long armed insurgency to an end and promised to chart a "peaceful and democratic new Nepal." The CPA includes provisions on political, economic and social transformation, conflict management, management of army and arms, permanent ceasefire, the process of ending the conflict, human rights, fundamental rights, adherence to humanitarian law and dispute settlement and implementation mechanism. The most significant developments are, beyond doubt, the ongoing efforts to manage the arms and armed forces from both sides and commitment to hold the elections for the CA by mid-June 2007 to write a new constitution. The 5-point (August 9) letters separately written by both sides asked the UN to assist in four areas-elections and peace-building efforts. The UN has already created a Trust Fund t finance its peace mission in Nepal and agreed to provide experts on elections, constitution, management of arms and human rights monitoring.

Interim Governing Arrangements:

According to the CPA, both sides agreed to form an interim constitution and set up an interim unicameral legislature with 330 members n which all the sitting members, except those nominated by the king and also those supported regression, will remain as members. The share of seats for NC will be 75, communist Party of Nepal Unified Marxist-Leninist (CPN-UML) and CPN (Maoist) will have --73 seats each, NC (Democratic) 42, the rest 48 seats would go to other SPA constituents and oppressed groups, marginalized and professional associations. An interim government is to be formed after the management of arms. These measures are expected to dismantle CPN (Maoist)'s 'people's governments' and bring all sides under a single rule of law. Local bodies will be run according to the understanding between the SPA and CPN (Maoist). They also agreed that those born in Nepal before mid-April 1990 or have been residing in Nepal since then are eligible for Nepali Citizenship. The parliament has already passed the Citizenship Bill and the Government has decided to mobilize 520 mobile teams of distribute citizenship certificates.

The CA will have 425-members out of which 205 will be directly elected from the existing geographical constituencies on the basis of first-past -the -post election system, another 204 members will nominated by the political parties in proportion to the votes they score and the council of ministers would nominate the remaining 16 members. Every Nepali attending the age of 18 will be eligible for voting in the CA election. The members of constitutional bodies will be appointed by the Constitutional Council (CC) headed by the premier, Chief Justice and Speaker of the interim legislature as members. The CA will also function as a legislature for two years until general elections take place. They have decided to

put late King Birendra and his family's property under a trust while nationalizing King Gyanendra's ancestral property. A high level Truth and Reconciliation Commission will be created to promote peace in society.

Both sides have agreed to constitute a 23-member interim cabinet, 5 ministers each to NC, CPN-UML and CPN (Maoist) and the rest will be divided among other parties. On December 16, the leaders of SPA and CPN (Maoist) signed the final Draft of the Interim constitution, which relegated the king to the margins devoid of any power in governance. Nepal is defined as an independent, indivisible, sovereign, inclusive and completely democratic state. The other features of the Constitution are: popular sovereignty, secularism, women's rights, rights to education, health, employment and food have been included as fundamental rights, constitutional remedy against caste discrimination, provision of a CA court to look into the complaints regarding the CA elections, National Human Rights commission (NHRC) to be set up as constitutional body, revival of local bodies in the understanding of eight parties, formation of a National Security Council headed by the premier including Defense and Home Minister and other minister named by the Premier, executive power to the Council of Ministers (COM) which will also appoint the Chief of Army Staff, a special committee of the COM to oversee accommodation and rehabilitation of People's Liberation Army (PLA), formation of the CC headed by the Premier that includes the Chief Justice, Speaker and three minister named by the Premier, authority to the COM to look into the punishment sentenced by any court, special court and military court, appoint ambassadors and other special representatives, power to remove difficulties that should be approved by the parliament of the CA within a month, all executive powers given to the Premier as the head of the state, to confer title,

honor and decoration on behalf of the state, fresh oath of office made mandatory to justices of the courts, amendment of the Constitution by two-thirds of the parliamentarians, etc.

Rastriya Prajatantra Party (RPP), RAstriya Janashakti Party (RJP) and Rastriya Prajatantra Party (RPP-Nepal) have dubbed the Interim constitution (IC) exclusionary as it was prepared in the interest of only 8 parties. The Federation of Indigenous Peoples and Nationalities burned the copies of the IC saying that it has ignored their demands for federalism, ethnic autonomy and local selfdetermination. Nepal Workers and Peasants Party (NeWPP) and Jana Morcha Nepal (JMN) opposed the provision to gove citizens to all born in Nepal after 1990. Nepal Bar Association and Supreme Court judges have also opposed it arguing that it subordinates the judiclary to the executive, makes the Premier an all powerful which undermines the system of checks and balances of power. The IC bars those political parties which hold the opposite view against the spirit of the constitution, recognizes only 8 incumbent parties, allows a party to be registered only if it can submit 10,000 signatures to the Election Commission (EC) and allows the government to sign treaties with any foreign country without any parliamentary approval. Nepal Sadbhavana Party (NSP-A) -sponsored a general strike on December 25, demanding a federal state system, demarcation of constituencies according to population and seeking that the rights of Madhesi people in the interim constitution be ensured. It crippled life in the Tarai plains killing one person. The mounting opposition against the unlimited power of the executive forced premier Koirala to reconsider revising some of the provisions of the IC. But later an eight party meeting, including the Maoists, agreed to promulgate it in its current form on 15 January. The reservations by different sections of the people and the prime minister's own recommendations regarding power check and balance were put on hold for the interim legislature to decide. Although Nepal is in a state of no-war-no-peace, the deterioration security and law and order situation puts a question mark on the feasibility of holding the CA elections on time. The media and civil society movement is putting pressure for the democratization of the state and political parties and inclusive peace while ordinary public are seeking the professionalism of these groups in public communication and the promotion of public interests.

Management of Arms of Armies:

On December 8, the government and CPN (Maoist) signed an agreement on arms management of both NA and PLA. The UN put its signature as a witness. They agreed to form a 9-member Joint Monitoring Coordination Committee (JMCC) comprising representatives from the government, the UN and the Maoists for monitoring the camps and barracks. The CPN (Maoist) were to be set up 7 main and 21 satellite camps, the latter were to be clustered within two hours' driving distance from the main camps. The CPN (Maoist)'s arms will be separated from the PLA and put under a single-lock system. The keys will be given to CPN(Maoist) but the arms were to be monitored by the UN via Closed Circuit Television (CCTV) with siren alarm. There were to be 30 armed Maoists to provide security to the main camps and 50 Maoists in the satellite camps. They would be accountable to the UN. The government has taken the responsibility of providing food and other logistics support to them. All the landmines are be destroyed within 60 days. Neither of the parties' of the parties' were to engage in movement or deployment of forces resulting in tactical or strategic advantage. Due to the UN's delay in arms storage, CPN (Maoist) pushed for the creation of a exGurkha servicemen's [retired servicemen form the Indian army but of Nepalese origin] Interim Task Force where all sides agreed to recruit 111 ex-British and Indian Gurkhas to monitor the arms.

The ongoing peace process has yet to rid the country of violence and intimidation. More persons have been killed (46) during the first six months after the formation of SPA government than during the April movement (22). The regime was responsible for the killings of 12 persons whereas the CPN- Maoist was responsible for 15. six persons were killed by vigilante groups, 8 by local villagers and unknown groups and the rest were killed in stray bomb explosions. Ethnic, regional and separatist resentment against the government and religious fissures are also challenging the government's ability to protect human rights and create a favorable environment for the CA elections. The CPN (Maoist) is trying to capitalize on the former three elements while the simmering Hindu discontent against secularism goes against it. Janatantrik Tarai Mukti Morcha (JTMC), breakaway faction of the CPN (Maoist), has continued to mount violent attacks against CPN (Maoist) and hill people. It has forced them to close their ships and has prevented them from driving vehicles.

The SPA government is struggling to enlarge the writ of governance in rural areas. The CPN (Maoist) has recently allowed the restoration of police posts and return of Village Development Committee (VDC) secretaries to their respective villages. The miserable record of the SPA leadership on governance and its intense internal bickering has strained its effectiveness to create security, law and order and facilitate humanitarian and development supplies. Under Maoist threat of general strike the government withdrew its August 18 decision to raise the price of petroleum products and suspended the recent appointment of 14

ambassadors, chairman and two members of NHRC and put off the recruitment and transfer of government officials until and interim government including the Maoists was formed.

Party politics:

Popular pressure on SPA is increasing for intra-party democracy, inclusiveness of the social diversity in their central committees, resolution of intense factionalism and splits and connecting the grassroots citizens with district party structures. Despite personality clashes at highest leadership level, both NC and NC (Democratic) are making efforts for reunification. There is also generation conflict within the SPA and its youth factions are demanding their fair representation in party structures. Maoists are adding force to their demands which in the foreseeable future might push for the democratization of the SPA built on patronage politics, and patron-client network. Ethno-regional differences are exacerbated by favoritism and nepotism in appointments in political, diplomatic and bureaucratic positions. Their pre-modern political culture has weakened the loyalties of citizens to the state. The RPP, RPP (Nepal) and RJP have proposed to Premier Koirala to create a "democratic front" to counter the CPN (Maoist) sponsored "left front" that are bent on abolishing the monarchy. The Premier talks about a "patriotic and democratic front," and has initiated a peace campaign in the countryside where leaders of NC and NC (D) were dispatched to mobilize their cadres seeking to re-link the broken connections of the party. The non-left parties' move to expand the state's writ in society has moderated the leftists' preference for state restructuring. Premier Koirala defended the appointment of the current army chief, preferred ceremonial monarchy, fostered civil-military relations, left the Palace Secretariat intact and did not mind the

King's rejection to respond to the questions of Rayamajhi Commission. The King has also welcomed the CPA considering that it will be able to restore peace and amity in the country.

The students of 8 parties took action against pro-King parties for voicing their disapproval of exclusionary moves of the government. The supremacy of the political will of the majority over the constitution has already weakened the conditions for human rights as well as rule of law. The formation of democratic culture in Nepal requires a democratization of both mainstream and revolutionary parties, moderation of their behavior, structural inclusiveness, sustained civic education of citizenship training and building party from below. Sustainable peace also requires the partnership of the critical mass of change agents of Nepalese society, such as business leaders, media and civil society in democracy consolidation and development.

The CPN (Maoist)'s strategic goal is a People's Republic. But it has tactically adopted bourgeoisie democratic republic for the medium-term and has formulated a policy to "fuse class war, mass movement, diplomatic efforts and peace talk" to mark the opening of another phase of transition whereby 8 parties will have primacy in politics. But, it has also broached a proposal to unify all the left forces in the country and form a single Communist party of Nepal. In December, CPN (Maoist) decided to transform its military-based party structure into a political one to implement the CPA and prepare for CA elections.

An 11-member central secretariat led by Prachanda has been created to coordinate the party's all 15 bureaus and 6 commands and formulate necessary policies for the party. It has also created village and district committees and decided to push for a nation-wide political campaign for a socialist democracy,

republic, federal state structure, foreign direct investment n priority sectors such as energy and production sectors that can give good employment opportunities, revolutionary land reforms through redistribution of lands, transformation of the rural economy into and industrial one, education for all, decentralization and special policy for Karnali Zone, etc. it has, however not foreclosed the possibility of a revolt if peaceful processes are foiled.

Foreign Affairs:

Preoccupation of political leaders with peace negotiation has left foreign affairs without a clear edge. As a result, foreign aid has declined, there is no positive indication of actual increment on foreign direct investment and the fate of over 106,000 Bhutanese refugees of Nepalese origin has been left in a limbo. Bhutan's Foreign minister Lyonpo K. Wangchuk, has ruled out any prospect of repatriation of these refugees. On October 4 the US Assistant Secretary of the State for Refugee Affairs Ellen Sauerbrey said that Australia and Canada would be willing to resettle 60,000 Bhutanese refugees out of the 106,000 but no progress in this regard has been made so far.

Nepal suffered an embarrassing defeat during voting in the UN Security Council for a non-permanent membership from Asia. Its contender, Indonesia, received 158 votes-guaranteeing its election -while Nepal received only 28 votes. The government in April recalled the ambassadors from nearly a dozen important world capitals and has not yet been able to fill the vacant posts. Among them involve Washington, Tokyo, Beijing, Delhi, London, Paris and Brussels (European Union). Internal political warngling among the mainstream political parties and opposition by CPN (Maoist) forced the government to suspend the appointment of ambassadors for various countries.

There are some positive signs also as Nepal's major donors-EU, India, the UK, China and Japan have welcomed the ongoing peace process. The US has expressed cautious support and suggested the CPN (Maoist) renounce violence, surrender arms and transform itself into a democratic party before joining the government. The US and India have not yet removed it from the list of terrorist organizations. The Indian role from the signing of 12-point agreement to CPA is based on the belief that the rebels' entry into the government will de-link it from Indian communists, the Revolutionary International Movement (RIM) and inspire Indian Maoists to join democratic politics.

On September 12 the Intonational Organization for Migration (IOM), the principal intergovernmental organization in the field of migration affiliated to the UN, formally established its liaison office in Kathmandu. It deals with migration and human trafficking issues. The United Nations Peace and Disarmament regional office for Asia-Pacific is likely to be established in Kathmandu soon. On December 15 the cabinet approved the idea of setting up embassies in South Korea and Australia . the UN has increased its role in Nepal and has deputed personal representative of UN Secretary-General, Ian Martin, to beef up the peace process. The UN Security Council has provided electoral advisors as well as a full mission to deliver the assistance requested by the conflicting parties. The UN Technical Assessment Mission has prepared a detailed proposal for the personnel, the logistical support and resources required by the mission to support the peace process.

Economic Development:

Nepal's population is 27 m with a growth rate of 2.25%. it ranks 138th out of 177 countries in the Global Human Development report 2006. The Human

Development Index (HDI) stands at 0.527, Life expectancy at birth is 60.18 years (male: 60.43; female: 59.91 years). Adult literacy is 45.6% (62% for males and 27% for females) with a per capita income of US \$311 human poverty index value for Nepal is 38.1 and power purchasing party is \$1 per day. Agriculture provides livelihood for majority of people. Due to poor monsoon, floods in the far-west and famine in Tarai, agricultural production this year suffered a sharp decline. Still, this sector contributes 40% to Gross Domestic Product (GDP). After the reduction of violence since the end of April economic condition remained stable as economic growth remains at 3%. The industrial sector suffered due to frequent disruptions by unions, declining business confidence and extortions by rebels. Poor security situation, lack of representative institutions and inability of the international community to invest in rural areas have caused food crisis in 32 food deficit districts of the far-west. Nepal's economic growth rests on political stability and a viable mechanism to resolve multi-layered conflicts.

The Nepal Rastra Bank in its 2005-06 report reveals that Nepal's trade with India (Rs. 150b) made up 63.3% of the country's entire foreign trade amounting to over Rs. 235b (US\$1 =Rs 71.69). It indicates an almost 18 % increase over the previous year's business. Indian imports accounted for Rs. 109b while imports from other countries amounted to nearly half, Rs. 65.80b. Petroleum products, rice, medicine, fertilizers and TV parts formed the bulk of Indian imports. Petroleum imports accounted for over Rs. 33b, medicines Rs. 4.38b and spare parts over Rs. 5b. Nepal exported goods worth over Rs. 61b, with India being the prime destination that accounted for exports worth Rs. 41b. Vegetable ghee, polyester yarn and jute goods were the top three export items to India, earning Rs. 3.86b, Rs.3.4b and Rs.2.63b respectively.⁷

The tourist arrival has increased by 7%. Inflation remained at 7.8% Growth in remittance (49%) helped to keep current account surplus of \$186m. Foreign grant declined by 10.6% due to shrinking development space in the countryside. Foreign exchange stands \$2.3b until mid-October which is adequate for financing merchandise and service imports of 9 months. It has a balance of payments surplus of Rs 25.6b during the current fiscal year.

Nepal's annual budget stands at Rs. 143.91b. out of this Rs. 79.64b has been allocated for regular expenditure while Rs. 64.276b has been allocated for development program. Rs. 80.825 b will be borne from the current source of revenue, Rs 23.73 b from foreign grant and Rs 16.97b from foreign loan. There will be a deficit of Rs 22.45b. The debt servicing now is about 8% of government expenditure. The foreign debt of Nepal as of July 16 has reached over Rs. 234b which comes to over 40% of the country's total GDP that stands at Rs 58.3b. Every Nepali now owes a loan of Rs. 13,000. Alarming foreign loans and declining development expenditure indicate that Nepal is moving towards a debt trapped economy.

Although Nepal provides 100% ownership in some sectors and has simplified licensing and regulations, pro-investment policies are often distorted by bureaucratic delay. Still, official data show that the FDI commitment received during the first half of 2005/06 touched \$17.5m. a total of 67 FDI projects were approved for operations in the country where India topped the list by registering 20 projects followed by the US and China.

The annual report of the office of Auditor -General has raised serious concern over growing losses in public enterprises (PEs). The unsettled account of the government crossed over Rs 29.9b in the last fiscal year. Appointments of

party cadres in PEs, corruption and rent-seeking tendencies have affected economic performance. The cabinet has decided to take legal action against 1,917 blacklisted loan defaulters who have borrowed Rs. 32.23b by the end of this year. The action involves passport seizure and restriction on fixed assets transfer. Citizens, however, doubt that these actions will take place given their leverage in high power centers.

The World Bank has approved a \$25m grant to be utilized for the benefit of the rural poor and vulnerable groups in Nepal. German government has provided half a million euros to the world Food Program to Nepal and has already spent 1.2m. It has pledged an additional grant (16.6m euro) to meet almost 70% of the funding gap faced by the middle Marsyangdi Hydel Project. This is in addition to the grant of 161m euros already committed by the German government through the German Development Bank (KFW). The annual German bilateral aid stands at euro 36.3m, the British government's stands at \$62.7m and the US development package stands at \$45m.

India has offered a soft credit of Rs 7.5b for the execution of infrastructure development projects and enhanced its aid to Nepal budget from Rs. 1.4b to Rs. 2.4b. Additionally, it has provided a grant of Rs. 1.3b to build unified, modern check posts along the Nepal-India border and Rs. 1.08b for the establishment of a trauma center. China has provided Rs 180m to invest in "mutually agreed" projects in Nepal. This amount is a part of the 80m yuan that China provides annual for Nepal's development.

Policy Reforms:

Transparency International (TI) revealed that the level of corruption in Nepal has not gone down in comparison to the previous year. Nepal has scored 2.5 in the Corruption Perception Index (CPI) ranking 21st out of 163 countries. Corruption, continued political instability and conflict have caused the failure of public institutions and delayed in achieving the targets of poverty Reduction Strategy (PRS) and Millennium Development Goals (MDGs). Donors are suggesting the government review its priority areas to have an impact on poverty outcomes. The international Monetary Fund (IMF) has renewed the poverty Reduction and Growth Facility (PRGF) agreement for one more year and allowed it to receive \$24.6m despite the slow pace in fulfilling "prior commitments". A MDGs needs assessment report unveiled that the government should mobilize double the current level of foreign assistance (\$16.6b) for the next decade if the MDGs are to be achieved for the period 2005-2015. Half of that money needs to be invested to reduce hunger, improve education and rural infrastructure. The government has approved Rs. 620m for the reconstruction of district headquarters and the rehabilitation of internally displaced persons. The preliminary estimate reveals that Rs. 1.10b is needed. It has requested the international community to bear the financial burden of the ongoing peace process and sought \$ 75m aid from them to bridge the existing financial gap.

Social Development:

The eleven-year old conflict has displaced about 300,000 people and ha intensely affected Nepal's social progress. Nepal's total fertility rate is 3.5 children per couple while infant mortality rate is 64.4 per 1000 live birth. 6,000 mothers die

each year in child birth. Two third of the babies die within 28 days which equates to over 30,000 neonatal deaths annually. The main reason for this condition is lack of post-natal care. Despite government ban on child marriage and the law for punishing brides and bridegrooms who ask for or offer dowry the system has not been abolished due to poor law-enforcing mechanism. There are 75,000 cases of people living with HIV/AIDS. Among these 16,000 are women (ages 15-49). Health facilities for the people of rural areas are declining due to declining investment, low motivation of the doctors and poor infrastructural condition. Medical equipment at district hospitals and health centers are dysfunctional. The facilities need to be improved. Only 67% of the people have safe drinking after facilities.

Every year 300,000 youth enter the labor market. But, Nepal's domestic labor market is shrinking day by day due to declining economic opportunities, fragile political situation and possibility of ethnic and regional unrest. Although the government has annulled the previous government's Ordinance guaranteeing labor market flexibility, a climate of industrial peace has yet to be established. More than 90% of the country's 11.5 m workforces are employed in informal sector and are not covered by any social protection mechanism. This condition has forced the migration of youth every day abroad for jobs. Altogether 8,19,000 Nepalese migrants have contributed \$785m in remittances, representing 12% of the country's GDP and 65% of the country's foreign exchange. Nepal has 1.660m economically active children (boys 54% and girls 46%). Many of these children do not go to schools. It is estimated that there are 127,143 children working in the worst forms of child labor -as bonded laborers, rag pickers, porters, domestic workers, in mines, in the carpet sector, and being trafficked.

On December 3, endorsing the proposal of pressurizing political parties on compulsory proportional representation of workers in the interim parliament and CA election, a 10 point agreement was signed by the chairperson of all trade unions which affiliated to Maoists [all Nepal Trade Union Federation (ANTUF-Revolutionary)], NC, NC (D) and CPN-UML. The pact seeks workers' rights, social security, social justice and the need for a unified trade union movement. Nepal Trade Union Congress (NTUC), General Federation of Nepalese Trade Unions (GEFONT) and Democratic Confederation of Nepalese Trade Unions (DECONT) have been jointly working in a number of areas, such as implementation of labor laws, verification of memberships, elections in the unions, unity among affiliates, occupational health a safety, globalization and conflict mediation. After these federations joined the newly formed International Trade Union Confederation (ITUC) in November, better resource and networking opportunities are expected in various areas, especially to assert their collective rights in their representation in the CA and define areas of cooperative action. Internally, however, these unions are engaged with the Maoist-affiliated trade union on the resolution of their conflicts. A RPP-affiliated National Democratic Confederation of Trade Union (NDCONT) having 17 national affiliates has formally registered with the Labour Department.

Gender:

Nepal's gender development index (GDI) value is 97.3% of its Human Development Index (HDI) value, out of the 136 countries with both HDI and GDI values, 119 countries have a better ration than Nepal's. despite commitment by the political leadership to provide women 33% of seats in the institutions of governance, gender disparity persists in every aspects of life, such as politics,

formal labor market, education and empowerment measures. The transformation of agrarian feudalism and caste hierarchy into modern institutions has blurred the distinction between the public and the private spheres. Women's organizations and international community are, therefore, pushing for gender responsive governance. The implementation of the Interim constitution, however, will likely to increase women's seat in the 330-member interim parliament and 425 seat CA body and increase their voice and visibility in decision making.

Conflict has affected men and women differently. Gender-based violence such as sexual violence, rape, unwanted pregnancy, forced recruitment as spy or in the fighting force, psychological damage, life-threatening diseases such as HIV/AIDS, infertility, stigmatization and rejection by family members and society, alienation, divorce, being declared unfit for marriage and severe economic and social repercussion, widowhood, trauma, economic burden for the family, etc has put women in a disadvantaged position. As a result, Nepalese women, during he violent conflict, played various roles in peace education, advocacy and rehabilitation.

On May 30, the parliament passed a proposal which obliged the government to issue a citizenship certificate to children with the mother as approver or legal guardian, to guarantee proportionate representation in all state mechanisms including jobs and other opportunities in the long run and to end all provisions in laws that discriminate against them. The post-conflict peace building efforts require alleviating their suffering and creating equal social, economic and political outcome for both women and men. On December 18, Nepal ratified CEDAW's Optional protocol. This provides Nepali women the power to bring claims of gender discrimination directly to the UN committee. But, in rural areas,

the lack of proper law enforcement agencies is exploited by anti-social elements. Rural women require capacity building efforts including access on the institutional resources of these state, civil society and international community.

Regional Cooperation:

Regional cooperation has become an inescapable option for the South Asian countries owning to emerging international trends, the need to cope with the challenges of globalization and domestic need to form common positions on multi-lateral regimes such as World Trade Organization (WTO). The 14th South Asian Association for Regional Cooperation (SAARC) summit will be held in India in June 2007. The most important achievement of SAARC so far is that South Asian Free Trade Area (SAFTA) came into force on January 1, 2006 which is expected to give benefits to the regional peoples through enhance economic activities, trade and commerce.

The induction of Afghanistan, as the eight member of the Association and the endorsement of observer status of Japan and China with the possibility of the EU, Republic of Korea and the USA joining at the next SAARC Summit surely gives further impetus to the Association. An integrated South Asia would bring concrete benefits to the people of the region and the decision to establish the SAARC Development Fund (SDF) is a crucial step in the direction of promotion mutual benefits through interdependence.

The seven-nation Bay of Bengal Initiative for Multi-Sector Technical and Economic Cooperation (BIMST-EC) has endorsed a plan for a free trade pact by 2017-while the three better off countries---India, , Sri Lanka and Thailand---are committed to trade liberalization by 2012. For a least developed Nepal's interest in

joining the international regime lies in balancing the negative effects of bilateralism, creating choices in foreign policy and reaping the benefits of globalization by seeking collective self- reliance.

Nepal has also offered itself to serve as a "transit state' between its two mega neighbors and has received supports from them. Nepal and China (March 16) signed an agreement on duty free access for all Nepalese goods to the Chinese market. Nepalese goods will be exported to three major Chinese markets-Tibet, mainland China and Honk Kong. On March 31, Nepal-India transit treaty was renewed for seven years. Of the 15 transit points, seven have been agreed for the transportation of goods under sensitive list.

Conclusions and recommendations:

With nearly half of the population in Nepal still living under conditions of object poverty and social deprivation, poverty alleviation is the biggest long-term development challenge for the government. Population growth, if it continues at its current rate, will wipe out the benefits of economic growth and thus undermine the various efforts made to provide social services. Hence, to ensure sustained increase in per capital income, and in order to elevate the population out of the poverty trap, a sharp reduction in the rate of population growth as well as proper management of scare natural and other resources are essential.

Since the problem of poverty is multidimensional in nature and requires a multisectoral approach, poverty alleviation requires broad-based, labour-intensive economic growth. In order to alleviate poverty in a sustained manner, given the interrelated structural problem, Nepal must pursue a balanced approach; such an approach will need to include efforts to promote rapid economic growth and

employment together with human resource development. The limited resource base, rapid population growth, environmental degradation, low level of social development, and inequality in income distribution and land assets are the basic reasons for the persistent poverty in Nepal. Moreover, the deficiencies within the administrative system, which contributes to the problems associated with implementing poverty alleviation projects, only serve to dissipate the expected benefits from foreign assistance.

Overall, there is a need to develop strategies focused on outwardly oriented, market-friendly, labour-intensive development. As the roles of individual initiative and private enterprise are significant in promoting industrialization, the state will have to play a more active role in the empowerment of the people through the provision of basic social services such as education and health as well as credible anti-poverty programmes if it is to be able to reach out to those living at subsistence level. There the poverty alleviation programmes must be designed within a sound macro-economic framework that will promote growth and distribution.

Despite four decades of socio-economic planning, Nepal has not been able to achieve a significant breakthrough in national development. Although comprehensive policies and programmes have been formulated over the past few decades, such policies and programmes have not been seriously implemented. A formidable mix of factors, such as to low level of infrastructural developments, the inadequacy of capital and technical manpower, a reticent private sector, a lack of project management skills, inadequate political commitment and resources, appears to be responsible for the sluggish economic growth. After the change in the political system in 1990, the collective aspiration of the people required that

the harsh rural life should be improved. Perceiving the needs of the poor, the eighth Five-Year Plan incorporated a national policy and various targeted and sectoral programmes for rural poverty alleviation. However, those policies and programmes were unable to go very far in achieving their objectives. Therefore, based upon reviews of ongoing poverty alleviation programmes, a list of recommendations is given below:

- (a) Development is an outcome of a combination of both natural and human resources, and a country should make the best use of what it has available. In the case of Nepal, which is basically resource-poor, human resources is all that the country can depend upon. Prior to the mobilization of the population, the people have to be made healthy, well-nourished, literate and skilled, so that they can be used as human capital. The success of a development programme is impossible without human resource development. But Nepal has not been able t make any headway in this direction. Therefore, a sound human resource development plan must be formulated and implemented;
- (b) Compared to the enormity of the poverty problem, ongoing poverty alleviation programmes have been too small and scattered to have any substantial impact of the lives of the rural poor. Some programmes, such as various credit and skilled development programmes, may be cited as successful examples. However, the effectiveness of certain other programmes which were implemented quite some time ago, such as SFDP, PCRW and the abolition of Kamaiya, is questionable;
- (c) Many of the policies and programmes visualized in the eighth Five-Year plan have not been implemented. Therefore, large progressive programmes

need to be designed, formulated and executed. Existing programmes and their operation should be thoroughly reviewed and modified to make them effective, wherever necessary;

- (d) Although the concept that the government should play the role of facilitator is gaining ground, NGOs, CBOs and local bodies are not yet capable of playing a decisive role in development. As such, the government should establish a partnership with the NGOs and CBO, assist them in building up their capability and bring about coordination between their various programmes and activities;
- (e) Public programmes alone cannot help the rural people unless they are ready to help themselves. For that, awareness among the rural inhabitants has to be awakened so that they can be organized and encouraged to become active in the programmes. The best way to create awareness is through social mobilization. The bet way to create awareness is through social mobilization. Therefore a large cadre of social workers, mobilizers and motivators needs to be trained so that they, in turn, can educated and train rural people;
- (f) Whatever progress has been neutralized by population growth. As such, regulation and control of the population is essential. Therefore the government should strongly promote family planning programmes. If such programmes are tied to educational programmes the effort will be even more effective. The government should seek the support of NGOs in that respect;

- (g) It is not practical for the central government to get down to the grass-roots level to cater to the local people. The decentralization policy being implemented by the government is a step in the right direction. However, the counterparts associated with local government are not skilled and competent enough to carry out local level development programmes. Consequently, reluctance exists on the part of the central authority to introduce massive decentralization. Therefore, the government should devise a plan for gradually strengthening the capacity of local bodies and opt for full decentralization. Since no government can succeed in its development mission without enlisting the participation of the people, activation of local bodies is the best way of doing so;
- (h) Although there has been mush discussion about the empowerment of women, in practice it is not really visible. In Nepal, women play a larger role than a men. Looking after the domestic chores and children, undertaking framework and caring for livestock. Since a community development programme cannot succeed without the active participation of women, the government should ensure that emphasis is placed on implementing improvement programmes for women; and

Poverty alleviation is a multidimensional issue. The challenge of poverty can be effectively addressed only through the concerted efforts of all the agencies concerned. It is a common experience that when many agencies are involved in similar programmes, problems arise with coordination and communication. When the level of commitment varies, it is often difficult to get all the agencies to act in concert. As such, a national level poverty alleviation body needs to be established, since only a high power apex organization of that nature can inspire and set on

track all concerned agencies as well as establish an atmosphere of coordination, communication and cooperation. It is proposed that the ninth Five-Year Plan (1997-2002) will take the issue into consideration.

Since the latest successful revolutionary movement which changed Nepal from a status of Kingdom to a republic Nepal, its political parties are now committed to take Nepal to fast development path. For, it need huge financial resources. Foreign donor community is also very much interested to assists by providing grant or loan aid in Nepal's endeavors.

Nepal need relevant quality experts and expertise. Multinational company private sectors do have equally good opportunity to direct invest in Nepal. With this prospective investment boom domestic as well as international engineering consultancy firms will certainly have a great opportunity & a scope for doing a good deal of business here in Nepal in the sector of railroad, highways, hydro & renewable energy, cable car, industrial engineering and so on.

It is therefore equally important to lobby with their respective governments to assist in Nepal's priority areas such as this study has highlighted.

Helping Nepal by helping your government you will all help yourselves. Official Development Assistance policy must be, can be and should be supportive and benefiting to all concerned: Investors, consultants and the recipient countries simultaneously. This politics should be one of the focus movements for international consultancy businessmen who are interested to do this business in Nepal.

INDIAN SCENARIO:

Improvement of Rural roads, bridges and drainage structures:

At present panchayats and panchayat unions are maintaining 52% of the total length of the roads in the state. The road transport has emerged as the most eminent mode of transport in the light of its inherent advantages of lower cost of travel and flexibility of operation. The rural roads also provide outlet to market centres, taluk headquarters and other main roads. Hence, it is essential to improve village roads to all weather roads i.e., by black topping. The improvement of road works has been taken up under Rural Infrastructure Development Fund (RIDF) under NABARD. An outlay of Rs. 93.75 crores has been proposed under this head during Tenth Plan. It has also been proposed to avail a loan amount of Rs. 93.76 crores under RIDF-V.

Provision of Infrastructural facilities in Tribal Blocks:

The objectives of the schemes are (i) to assists the ST families to cross the poverty line with special emphasis on improving agriculture, irrigation and education in tribal areas and (ii) to provide basic infrastructure facilities for better living conditions. An outlay of Rs. 2.39 crores has been proposed during the Tenth Plan.⁸

Provision of Infrastructure facilities for Rural local bodies :

With a view to provide basic infrastructure facilities such as drinking water, street lights, link roads, construction of school buildings, health sub-centres etc., an outlay of Rs. 294.68 crores has been proposed during the Tenth Plan.

Local Bodies Incentive Scheme:

An outlay of Rs. 80 crores has been proposed during the Tenth Plan. Thus the total outlay for Community Development for the Tenth Plan is Rs. 600 crores.

Table : 40

Proposed outlay for Community Development							
		(Rs. in crores)					
	Name of the scheme/programe	Outlay (State share)					
1.	Improvement of rural roads, bridges and drainage structure under RIDF	93.75					
2.	Loans for improvement of rural roads, bridges and drainage structures under RIDF-V	93.76					
3.	Integrated Rural sanitation and water supply project with DANIDA assistance	16.27					
4.	Central Rural Sanitation Programme	19.15					
5.	Local Bodies Incentive Scheme	80.00					
6.	Formation of Tribal Blocks in Hill areas	2.39					
7.	Provision of infrastructure facilities for rural local bodies	294.68					
	Total	600.00					

Source: Tenth Five Year Plan, Govt. of India

Impact of reforms on rural poverty:

The central government has taken a number of initiatives aimed at basic economic restructuring and reforms, with the objective of putting the Indian economy on the path of sustainable economic growth. The new policy aims at

macroeconomic adjustments and structural reforms in the areas of industrial policy, trade and exchange rate policies, foreign investment policy, tax reforms, financial sector and public sector reforms.

However, those reforms involve social costs. In the first place, fiscal discipline has forced limits on Government spending which could affect investment in the social sectors. Economic restructuring may also involve temporary job losses. While total employment may increase in the process, it is necessary to insure that the hardshin imposed on any section of labour as a result of such restructuring is minimized. Recognizing the need to create a social safety net, the government has taken several major steps.

From the beginning, the economic reform programme has been guided by the twin goals of accelerated and sustained growth and social equity. The goals have been pursued through the promotion of broad based, employment-generating growth, enhanced Five-Year Plan outlays for poverty alleviation and social sectors such as health and education and the building of social safety nets to cushion the possible adverse effects of reforms on vulnerable sections during the stage of transition. Therefore the importance of the special employment programmes of IRDP and JRY that are targeted on the poorest segments of Indian society have been considered as important elements.

The lower incidence of poverty in 1993/94, despite the intervening crisis of 1991/92, suggests that the various policies and programmes adopted in the process of economic reforms have helped the poor in the country. Other available evidence also supports this view. Average real wages of unskilled agricultural labour which reflect the economic conditions of agricultural labourers, declined by 6.2 per cent

in the crisis year of 1991/92 for the country as a whole. But in subsequent years they increased steadily, showing an average growth of 5.1 per cent per annum form 1992/93 to 1994/95 for the country as a whole. The all-India infant mortality rate was virtually unchanged in the crisis years of 1991 and 1992, before resuming its pattern of decline in 1993 and 1994. Similarly, the death rate rose slightly in 1991 and 1992 before reverting to its declining trend in 1993 and 1994. Those trends were consistent with the view that while general living standards were adversely affected by the economic crisis of 1991/92, the reform-induced recovery led to the improvements in general living standards in 1993 and 1994.

Expenditure on the social sectors, including rural development, health and education, had to be restrained in the first year of the reform because of the severity of the fiscal crisis. However, it was subsequently stepped up substantially, reflecting the improvement in the fiscal situation that had taken place over the previous years. Despite stringent resource constraints the government had steadily increased expenditure on the social sectors and on programmes for poverty alleviation. The allocation for rural development, which encompasses the major programmes for poverty alleviation, was increased from Rs31 billion in 1992/93 to Rs77 billion in 1995/96 and to Rs86 billion in 1996/97. Correspondingly, the share of the social sectors and anti-poverty plan rose from 35 per cent in 1992/93 to 47 per cent in 1995/96. ¹⁰

The government also accorded high priority to poverty alleviation programmes. The Central Plan allocations for social sectors and poverty alleviation programmes were considerably increased in 1996/97. The outlay for elementary education rose considerably, mainly because of the programme of nutritional support to primary school students. The allocations for health and rural

development, which encompasses the major poverty alleviation programmes, increased by 21.6 and 12 per cent respectively in 1996/97, compared with the allocations in 1995/96.

Indian Govt. allocation fund is better than Nepal. Infrastructure facility available in India is better than Nepal.

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CHAPTER - 5

Problems of Rural People in Nepal and India

PROBLEMS OF RURAL PEOPLE IN NEPAL & INDIA

Despite some progress in poverty reduction in recent years Nepal remains one of the poorest countries in the world. Poverty in Nepal is a deeply entrenched and complex phenomenon. Over 30 per cent of Nepalese live below the poverty line of US\$12 per person/per month. Nothwithstanding declining rates of urban poverty, the problem remains widespread with indicators suggesting a ruse in rise in rural poverty.

About 80% of Nepal's population live in rural areas and depend on subsistence farming for their livelihoods. Household food security and poor nutrition are still major concerns in rural areas. Most households have little or no access to basic social services such as primary health care, education, clean drinking water and sanitation services. Rural poor people generally have large families, are landless or have very small landholdings, with high rates of illiteracy and are also concentrated in specific ethnic, caste and minority groups, particularly those of the lowest caste (dalits) and indigenous peoples (janajatis). Small, fragmented subsistence farming is a characteristic of Nepalese agriculture, and the average landholding is only 0.8 hectares. Life is a constant struggle for survival. The most vulnerable and marginalized groups are the lowest social castes, indigenous peoples and women. ¹

Building Peace and Reconciliation:

Poverty, lack of economic growth, and increasing marginalization contributed to political unrest and violence which originated in the highlands of Nepal. A maoist rebellion that began in 1996 in the remote hill districts of the Mid-Western region later intensified ad spread across large parts of the country. More than 14,000 Nepalese were killed in the conflict and about 600,000 have been internally displaced or made homeless. In addition, more than million people are believed to have fled to India. Fighting occurred largely in rural areas, with agriculture particularly affected.

In November 2006, a comprehensive peace accord was signed between the Government and the Maoists which, apart form the provisions for disarmament and the end of hostilities, included clauses about the transformation of the country to a multi-party democratic republic as well as for respect of human, social and economic rights. A re-instated parliament abolished the monarchy, formed an instated parliament abolished the monarchy, formed as interim government led by the former Maoist rebels and provided a new interim constitution for the nation. A constituent Assembly election in April 2008 and the country entered into the era of 3Rs (Reconciliation, rehabilitation and reconstruction). Though the armed conflict has ended, peace and the political situation remain fragile.

Land ownership in Nepal has traditionally been concentrated in the hands of a few. For most poor rural families access to land is extremely limited. Almost 70% of households have holdings of less than 1 ha and many of them depend on plots that are too small to meet their subsistence requirements.² Productivity levels

remain low as a result of limited access to new farming technologies, inputs and extension services.

Because of poor growth in the agricultural sector, living standards in rural areas are deteriorating and poverty is increasing. The growing population has put huge pressure on cultivable land, especially in the Terai region, which also supports many landless migrants from the hills.

Many factors contribute to chronic poverty in Nepal's steep and mountainous areas. The rugged terrain makes it difficult for promoting economic activity and delivering services. These areas are also physically isolated, with poor communications and infrastructure and are ecologically fragile. Increasing population pressure has led to unsustainable use of natural use of natural resources, including overgrazing and deforestation. And erosion in the uplands causes flooding in the lowlands that can be devastating to crop yields.

Social discrimination plays a significant role in keeping the most disadvantaged people in rural Nepal poor and marginalized, excluded groups include smallholder farmers, landless labourers, lower castes, indigenous peoples and women. Discrimination on the grounds of caste is officially illegal in Nepal but is in fact widespread, especially in rural areas. Members o the lowest caste (Dalits, or untouchables) are the most disadvantaged group. Many lower caste Dalits work as wage labourers for higher-caste farmers.

There is a wide gap between women and men when it comes to access to health, nutrition, education and participation in decision-making. Infant mortality is much higher for girls, and illiteracy is far more common among women than men. Many rural women live in severe poverty, without any means of improving

conditions for themselves and their families. Within households women often have less to eat than men. Insufficient calorie intake can lead to chronic malnutrition in the infants they feed.

Lack of economic opportunity and the recent conflict resulted in many of the most productive members of households to migrate and leave the villages. As a result more and more women have been heading households alone and taking on the burden of sustaining the rural economy. Women constitute more than 60 per cent of the agricultural labour force but have little access to land, production technology and training.

Poor families are often obliged to send their children to work rather than to school. In this way the poverty cycle is perpetuated into the next generation. It is estimated that about one quarter of the children in Nepal are engaged in some kind of family or wage labour.

The highest concentration of poor rural people is found in the Mid-Western and Far-Western regions. While the overall poverty rate for Nepal is 31 per cent, this figure increases to 45 per cent in the Mid-Western region and 41 per cent in the Far-Western region. In these remote hill and mountain zones the terrain is rugged, rainfall is low and the soil is poor and difficult to farm. Agricultural holdings per household are the smallest in the country, and access to health, education, roads, telephones, electricity, water supply and sanitation services is very limited. The conflict has exacerbated the extreme isolation of these regions.

The Terai area has good potential for food production but is increasingly overtaxed by the needs of a growing population. The number of landless and marginalized poor people is rising in the region.

Situation and trend of poverty:

Poverty in Nepal is rural phenomenon and widely spreading. Measurement of this multidimensional socio-economic issue as hurdle in the course of economic development and high economic growth is surprisingly and unacceptably different that raises a question of reliability and accuracy on poverty figure and research. National Planning Commission estimates about 38% population living below the nationally defined poverty line in 1999, according to the Tenth Five Years Plan (2002-2007). In the Ninth Five Years Plan, poverty figure was estimated 42% on the basis of Nepal Living Standard Survey 1996 conducted by Central Bureau of Statistics.³

Poverty in incidence profile:

National planning Commission, through the national survey on employment, income and consumption pattern, first of all attempted research on poverty to define and quantify the level of poverty in 1976/77. The survey attended two criterions: income level of Rs. 2 per capita per day as minimum subsistence level of income and expenditure required to buy 605 gm of cereal and 60 gm pulses fulfilling an average calorie need of 2256 (suggested by the Food Research Laboratory and FAO) as minimum subsistence level of expenditure. Te survey estimated 32.9% population below the above poverty lines ⁴

Table : 41

Poverty measures of Household and population with Expenditure and Income by region (in per cent)

Region	Households				Population			
	Consumption		Income		Consumption		income	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	urban
Eastern	34.09	13.70	38.63	21.99	32.61	14.40	37.02	19.06

Central	34.00	25.56	36.33	27.81	29.33	25.30	34.46	21.23
Western	37.25	25.76	29.96	29.26	37.00	26.25	28.45	25.61
Far- Western	38.29	33.96	47.31	35.85	34.82	33.96	43.56	25.04
National average	35.53	23.49	37.33	27.58	32.91	23.99	35.46	22.20

Source: National Planning Commission. 1983.

Far western development Region is relatively poorest of all remaining Development Regions - Eastern Development Region, Central Development Region and Western Development Region by the proportion of household and population according to the defined poverty line is followed by Western Development Region, Eastern Development Region.

Specific study on poverty of Nepal depicts rural phenomenon reports more proportion of household and population living below the poverty line in rural areas than in urban areas, according to income and expenditure based poverty lines. Income measure of poverty by household and population reports generally higher poverty incidence than consumption measure of poverty in Nepal.

Multiple household survey:

Nepal Rastriya Bank, the Central Bank of Nepal continued the research on poverty through Multiple Household Survey 1984 conducted the survey on basis of ecological belt: Himal, Hill and Terria rather than of development region wise. The survey reported 41.4% as national average of poverty incidence out of which 43.1 % population lies below the poverty line in rural areas and 39.2 % in ruban areas. The poverty incidence n Nepal in 1980s was rural phenomenon that wasn't different from 1970's

Table – 42
Poverty incidence by ecological regions ((in per cent)

Region	Household	ls		Population		
	Rural	Urban	Total	Rural	Urban	Total
Mountain	36.0	-	36.0	44.1	-	44.1
Hills	49.8	12.6	47.1	52.7	14.5	50.0
Teri	34.1	20.2	33.0	35.4	24.1	34.5
National	40.7	16.1	-	43.1	19.2	-

Source: Nepal Rastriya Bank, Multiple Household survey

Poverty line was based on the estimated per capita income per annum, the was estimated US\$ 69 and US\$ 87 for rural terai and hill respectively and US\$69 and US\$95 for urban hill teria respectively. Ecologically, poverty incidence in hill areas is more pervasive and wide spreading than himal and terai. Subsequently, himal and teria follow hill for poverty incidence.⁵

World bank survey (1992):

The world Bank and UNDP conducted the poverty survey in 1992 estimated 70 % population living below the poverty line as national average of poverty incidence with the use of US \$ 150 per capita income per annum. The size and nature of poverty is rural phenomenon.

Nepal living standard survey (1996):

Central Bureau of Statistics conducted Nepal Living Standard Survey over all Nepal in 1996 with introduction of ultra poor. The survey was comprehensive and also micro nature. The survey measured 42.0 as national average of poverty incidence in 1996 out of which the poor was 24.9% and the ultra poor was 17.1% regarding the defined poverty line. By region, rural poverty was revealed approx,

twice of urban poverty in Nepal. The survey revealed poverty as rural feature. Ecologically, poverty incidence in mountain (himal) that as estimated at 56% was highest of all terai (at 42.0% and hill (at 41.0%). The pattern of poverty incidence from mountain, terai and hill in Nepal changed from the pattern of poverty incidence from hill, mountain and terai of 1980's.

Table :43
Poverty incidence b y region : 1996

(in per cent)

Region	Population below Poverty Line					
	Poor	Ultra-poor	Total			
Mountain	29.3	26.7	56.0			
Hills	21.3	19.7	41.0			
Terai	28.7	13.3	42.0			
Urban	13.2	9.8	23.0			
Rural	26.4	17.6	44.0			
National Average	24.9	17.1	42.0			

Source: National Planning Commission. 1998. p. 203.

Ethnically, Nepal is diverse. The survey studied poverty distribution by caste and ethnic groups noticeably found more poverty concentrated in lower castes (Dalit) including Damai, kami and Sarki with 67%, 68% and 65% respectively. Among the higher caste and ethnic group (Rai, Limbu, Gurung, Tamang, Magar, Tharu). Limbu (71) was relatively poor among Tamang (59), Magar (58), Rai (56), Gurung (45). Among higher caste, Cheetri (50) was relatively poor among Brahmin (34) and Newar (25) per cent.

World bank survey (1997):

The world Bank continued the research on poverty of Nepal conducting a survey in 1995 with three poverty measures: US\$ 200 estimated as income per capita per annum, NRs. 1170 as purchasing parity power per annum and less than US\$1 per day income earning. The World Bank Report 1997 estimated 53.1% population lying below the poverty line Demographically, 11.4 million lived below the poverty line, out of 21. million.

World Bank survey (1998/99-1999/00):

The World Bank followed the poverty research of Nepal studied the survey of 1995 to the poverty of Nepal. The survey reported 42% population living below the defined poverty line out of which 44% population lived below the poverty line in rural areas and 23% population in urban areas. The survey accounting absolute poverty as 53.1% and as 86.7% on the use of in urban areas. The survey accounting absolute poverty as 53.1% and as 86.7% on the use of US\$ and US\$2 per day income earning respectively depicted a gloomy portrayal of poverty in the course of economic development.⁶

Causes behind poverty:

Factors behind poverty are variable in respect to change in time, human and structural dynamism link with governance and stability and socio economic and geographical structure. In Nepal, poverty is rural phenomena behind which there is a weak linkage with distribution, production, physical and human.

Feudalistic land system:

Land distribution in Nepal is still feudalistic nature, although the government of Nepal has brought revolutionary and progressive land reform in the

post 1990. Few percent people holds large size of land in Nepal but large size of people holds small. So, returns of land have been unequal as cause of poverty and inequality.

Table :44
Unequal Landholding of people in Mountain, Hill and Terai
(in percent)

Area	People	Landholding	People	landholding
Mountain	66.66	20.04	0.29	15.03
Hill	51.85	10.51	0.25	7.51
Terai	45.65	12.05	1.25	16.06
Total	163.96	42.6	1.79	40.39
		Average 0.26		Average 22.56
			People in Nepal	Average 0.5

Source: the Ninth Plan (1997-2000)

Geographical disintegration:

In the present observation on development of Maoist conflict, Nepal seems to be politically integrated but not 100 percent physically and socially integrated because of geographical complexities and poor performance of the plan on physical linkages with rural areas. The distribution of resources, opportunities and fruits of development towards the poor and rural areas has been critically weak. So, the negative correlation between poverty and the plan efforts deepen the growth of poverty and its vicious cycle.

Unemployment and under employment:

Unemployment and under employment are factors behind poverty because employment is source of income and basic needs. In Nepal, 4.7 percent of 1,16,69,000 economically active is fully unemployed and its 47 percent is

underemployed in the increasing price level of goods and services. The expanding unemployment factors raises poverty size and numbers.

High rate population growth:

The population growth rate of Nepal is 2.36 percent. (CBS: Population Census: 1991) that is a higher rate. This inflexible demographic factor challenges distribution system and also national development strategies and polices. Thus, the poverty doesn't correlate positively with the poverty alleviation plan efforts.

Low economic growth:

Average GDP growth rate of Nepal over past decades is less than 4 percent. This low economic growth rate is less than the population growth rate. The growth rate has not sufficiently response to poverty and quality of life.

Unequal income distribution:

Structure of National Income Distribution is rigidly centralized in the urban city and few percent high ranked people. So, the large share of National Income goes to the few percent high ranked people, this unequal National Income Distribution causes increasing income inequality and the gap between rich and poor.

Effects of poverty:

In case of Nepal, poverty has carried multiplier effects on different sectors. These are discussed below.

Maoist conflict:

Poverty is a root cause of development and strength of Maoist conflict.

Otherwise, Maoist has been only political party, instead of arm rebels.

Social fragmentation:

Poverty gap and inequality have made the society into small fragmentation and polarization into rich and poor. So, there will be a problem and conflict, which destroys social harmony and development.

Crisis of nationalism:

The conflict has brought crisis of nationalism and also made failure of development plan and efforts.

Insecurity:

Principle conflicts has transformed into arm conflict. The exceeding arm conflict of Maoist with the government has made Nepal insecure more than before since 1996. Consequently, life, wealth and infrastructure have been under destruction.

Constitutional deadlock:

The conflict has made constitutional values, norm and system are deadlocked because of Maoist conflict. So, there is a possibility of mal function of constitution that will not be favourable to the people who love freedom and democracy.

Migration:

Poverty is a major effect of migration not only within the country but also to outside the country. This demographic transition to India and other countries are benefit to the nation and national economy but internal migration is destructive through structural changes.

Poverty alleviation effort:

Nepal seriously concerns poverty alleviation through different measures such as planning measures, policy reforms, macro economic stability and growth, institutional development, poverty alleviation programs etc. the efforts of Nepal can be discussed below.

Socio-Economic conditions of Dalits in Nepal:

The untouchables in India are categorized by law as "Scheduled Caste". The hero of non-violence, Gandhiji, named these people the 'Harijan''- the children of God, and Ambedker, another leader, called them the 'Dalits'-the oppressed ones. In Nepal they are also being called the 'Dalits' these days. Whether it is in India or Nepal, dalits are considered as one of the most disadvantaged group because the process of social stratification and job distribution in the past have resulted in their present socio-economic plight and their entire and perpetual backwardness. Hence, most of the Dalits even today remain poorest of the poor. Even though many of the Dalits carry on with their caste based and service oriented traditional occupation as well as agricultural work, the insignificant return on the service they render and landlessness have made them face appalling poverty. Simultaneously, the process of modernization and industrialization has replaced most of their casteoccupations. These people have become helpless to make up for the loss by adapting to new enterprise or entrepreneurship. If the long achieved skills of the Dalits are properly accumulated and strengthened, it can emerge as a potential capital for the nation. Caste system is undoubtedly an obstacle for the economic prosperity of Dalits. Even though untouchability is fading from the urban milieu and among the educated, the principal of heredity in occupation has been

segregating them from the socio-economic mainstream of the country. There is not yet full and free access to Dalits to have an alien profession beyond their heredity occupation. This sort of psychological restriction is not conducive for the upliftment of the backward people. Hence, the needs to provide them free mobility in every field and walk of life and allow them to improve their standard of living just like others.

Cultural aspects of Dalits:

Social hierarchy in terms of caste, occupation, caste barriers and untouchability are some of the distinct features of a Hindu society found nowhere in other parts of the globe. Even more surprising is the question of untouchability and claiming of superiority within the sub-castes of Dalits itself. However, in spite of caste pollution, such stratification has served even today as a cementing force for group formation; for within the structure of the caste-oriented society individual behavior is largely regulated in terms of expected and accepted norms in which the individual is born. The primary loyalties of an individual are founds towards his or her kin ad caste members. Thus, caste represents a close clustering of members at different levels. Especially in the rural areas, people are more castebound and remain rigid within caste boundary.

The roots of the caste system are so deep that, apart from its symbolic value, it does have functional importance in the society. There may have been changes in inter-caste or intra -caste relationships, but in its functioning, caste is an important factor as ever in maintaining social distance as well as social solidarity. Hence no date can be predicted for a comprehensive eradication of caste disparities, but due to the growing sociopolitical awareness among the educated Dalits and non-Dalits, the distance between them does need to be

narrowed down to a desirable extent. The situation in this country also not has been worse than it was before with traditional caste discrimination prevailing in public places like teashops, groceries and so on disappearing. Except in his or her native area the people of Dalit are solemnly identified and treated accordingly. Disclosure of caste identity is no longer demanded in public places and in educated circles.

Awakening and consciousness among Dalits:

Political changes, following the 1950 revolution, have been catalytic to bringing about social changes in Nepal particularly with regard to breaking down of caste taboos. Caste barriers have been removed to a great extent and there are instances of inter-caste mobility. If one would observe the process of social change and mobilization in Nepal over the past five decades, it would be noticed that the traditional caste rigidity no longer prevails. In spite of the caste hierarchy, those who have been able to attain economic, educational and political achievement have received greater acceptability in the society.

The declaration of the constitution regarding caste discrimination, like 'untouchability' as illegal and punishable by law, has been a jolt to caste-ism. But, it is one thing to legislate and another to implement such legislation. It is true that one cannot now legally discriminate against Dalits in employment and other public dealings. But it is at the same time a stern reality that they live for the most part as they have traditionally lived carrying out the dirtiest and the most menial form of jobs since the evil is intricately woven into the social fabric itself.

Social political awareness, however, is growing among the educated members of the Dalit groups. They have launched a sustained movement to

liberate themselves from the centuries of suppression. Nevertheless, their constraints are naturally great. The centuries of caste practice and concomitant discrimination in the socio-political and economic life of the people is so deeply rooted in the society that it is not a matter that will wither away through mere legal provisions.

However, the local units of different political parties and a few international organizations are playing an important role in bringing the people of different castes together.

The first and foremost requirements for Dalits to come out of their plight are self-consciousness and self-realization of their own backwardness. Most of them still believe that the oppressed condition of their life is the consequence of their common lot, i.e. something destined by the unknown fate. Until they come out of the superstitions, their upliftment is not achievable. It requires education of all the Dalit children to enable them to exist and survive on an equal footing with all in a competitive society. The question of socio-political and economic equality is not always a mere thing to be demanded but it should be seized and commanded by themselves patiently through sound knowledge. It is obvious that the caste system is gradually declining from its ritualistic and traditional functions as the regulator of social behavior. A Brahmin today does not necessarily perform any of the traditional priesthood function but rather adopts the westernized way of living. Hence, the previous caste rigid society has converted into a more flexible and expansive one, even though, there are many instances of Dalits being insulted, humiliated and boycotted by upper caste people.

Dalits are being much more aware of their social status. In order to achieve some tangible power and position in the society they have now aligned themselves

with modern integrative forces-political parties and organizations. In this process, caste has even achieved new strength. They are also frequently holding seminars, workshops, talk programs, interactions and even agitation' to make themselves and others understand and realize the irreparable loss to the society and nation due to caste disparities. They are even demanding separate legislation for their separate identity and upliftment. They have understood that unless they have access to power the 'caste disease' can never be completely cured.

Upliftment of Dalits:

If non-discrimination between caste is to be achieved, it is only possible by pulling up different caste members together. But constitutional provision alone cannot bring any behavioral changes in the society nor strong speeches by political leaders. Some action oriented plans and programs are urgently required to suit the demand of the new millennium.

Nepal is the only Hindu state in the world. Dalits are Hindus by herediatary practice and culture, and very surprisingly, therefore Hindus have been oppressed and discriminated by the Hindus themselves. Dalits could have renounced Hinduism to follow Buddhism, just like prescribed by Ambedker, India's dalit leader, but peace loving Dalits of Nepal have not followed the Indian prescription. They appear optimistic that an equal and equitable society will ultimately prevail. If the discriminatory practices are not removed from Hinduism through equitable measures to unite the Hindus, the Hindus themselves can fall in minority in their own country or face religious clashes as in India.

The foremost and important measure, among many, would be to develop self-sustaining capacity of the Dalits themselves. For this their children need to be

admitted in schools. Hindrances in the process of fulfillment of these obligations by the Dalits need to be removed and if opposition to their emancipation comes it should be harshly dealt with through legal actions.

No society can be forcefully changed overnight. Social and political mobilization needs to be executed to transform the transitional society scrupulously into the modern one. In the course of transformation, sufficient opportunities or privileges and protection should be provided to these oppressed people by every sector of the society and by the State itself.

The Sudras of a Hindu society are the Dalits or oppressed, as we understand today. These are marginalized not only in the religious sphere, but in terms of political representation, economic participation or social exclusion, these people find themselves to be the most disadvantaged groups in Nepalese society. In other words, they are economically deprived, politically backward. And socio-culturally hatred by the Hindu upper caste groups. The development prices is demolishing their infrastructure forcing tem out of their home, depriving them of their traditional way of life and work.

Constitutionally, however, every citizen is equal and deserves equal rights in the society. However, the letter and the spirit of the constitution of Nepal 1990 is yet to be effectively implemented. The state seems incapable on its own to implement the existing legal provisions for the eradication of discrimination, economic welfare and redistribution in a decline for any economic program to have a long-term and positive impact on the lives of the oppressed and the political condition thus arising not very conducive to bring about positive social changes. Given this situation, a strong civil society can play a vital role for the resolution of the existing problems of Dalits.

Household's Socio-Economic Characteristic:

Agriculture is a dominant job in Nepal. Casual laboring, particularly in agriculture sector, is an important income source for land-poor households. Due to the lower educational level few households head and members are engaging in service sectors. Few households belonging to occupational caste are continuing their professional works as the main job. In the passage of time these people faced hardship to sustain their livelihood only with occupational works. Therefore, they had shifted their original job to farming, wage laboring and other activities. Apart from farming people also have some non-farm jobs. Some of the adult members in the households are engaged in one or several types of non-farm jobs within or outside the country. Temporary migration in search of income opportunities to the places outside the village within and outside the country is general phenomenon for adult members in rural Nepal.

The crucial assets for farming households are land, labor and livestock. The average family size in rural Nepal is 5.4% and majority of the households (67.2%) have 5-10 individual in their family. The dependency ratio i.e. number of members <15 aged is about 0.40. this means 40% of household members are dependent on other adult family members for their livelihood. The farming in Nepal, which is subsistence in nature, is operated on an average farm size of less than a hectare. The average landholding size is 0.71 hectare, 35.9% households are small holders (<0.5 ha), and 60.9% are medium holders (0.5 to 2 ha). Only 60% of the households own the irrigated land. Farmers are raising different types of livestock like cow, buffalo, bullock, goat and poultry. The average livestock ownership is calculated by LSU (Livestock Standard Unit), which help to aggregate the

number of different types of livestock owned by a family. The average livestock holding size is 5.48 LSU and 59.4% households own 1-5 LSU.

The crucial assets for farming households are the productive ones such as land, labour and livestock. The distribution of resources according to caste/ethnicity s highly unequal, particularly in the case of landholding (type and area), livestock holding and educational level of family members. In land size and equality of land bahun and chhetri are better endowed than magar and occupational caste. Balum, chhetri and magar have better labor endowment in terms of family size compared to occupational caste. Of course, larger family size increase at the same time the number of consuming units. In all caste/ethnic groups dependency ratio is more than 40% and educational level is very low. Among the caste /ethnic group educational level is quite low in occupational caste.

Food security status among Rural Households:

The head count method of food insecurity analysis indicates that majority of households (74%) are food insecure and are not capable to manage food demand even through the combination of different coping strategies. Table 4 shows that 22.7% households are chronically food insecure, 51.5% households are potentially food insecure and 25.8% households are food secure.

In total sample households, the incidence of food insecurity, average food insecurity gap and square of food insecurity gap are 74%, 0.33 and 0.14, respectively. The average depth of food insecurity is lower in bahun than in other caste. This depth is 1.5 times higher in occupational caste than bahun but severity is 2.5 times higher. The incidence of food insecurity is highest in magar but depth and severity of food insecurity is lower than chhetri and occupational cate. The

reason is that most of the magar households fall in otential food insecure group with less than 50% calorie deficit, where as in the case of chhetri and occupational caste, more numbers of households fall under chronic food insecure group with more than 50% calorie deficit. Similarly, both depth and severity of food insecurity is higher in small landholders and livestock holders, laborers, and households having less expenses. It was found that same and higher level of incidence of food insecurity is not directly related to higher depth and severity of food insecurity. This analysis also indicates that distribution of resource have influence to the household's food security status. Large land and livestock holders, business and service jobholders, and households with high -income level (proxy of household's expenses) are more food secure.

Food security -Temporal dimension:

The response of households they feel difficulty to manage the food requirement due to deficit in own production. In chronic food insecure group, the food deficit situation exists in the month of May to September and February to April. This is relatively more than the deficit months faced by potentially food insecure and food secure groups. In these two groups, the food deficit situation exists in the month of late June to early August and late February to early April. This problem exists just before the harvest of main crops. Wheat, maize and rice are harvested in April, August and November, respectively. After the harvest of rice in November, the entire households have enough to eat. But the food stock gets dried in March, and in chronic food deficit group, the food deficit condition stars to prevail as early as late January because of their less rice production. This situation is somewhat improved in April-June with the harvest of wheat, providing short relief. The severity of food deficit is found in late June to early August as the

self-food stock dries completely and the food prices in the local market shoot high. This problem is further aggravated by start of monsoon rain that disrupts transportation of food from the plains. This problem is particularly acute for the chronic food insecure households, who can't stock any food as they even have to sell portion of their produced food soon after the harvest, comparatively at cheaper price, in order to maintain households cash demand for other purposes. These households are compelled to take food loan from the local merchants and landlords during this time, to be paid later in cash, kind or labor. Potentially food insecure group manages this crisis slightly better. Whereas, the food secure group overcomes it with different coping strategies. The food deficit conditions improve in August after the harvest of maize, the other major food crop. Most of them don't face food deficit till the harvesting time of rice the following November.

Problems influencing Household Food Security:

The problems perceived by the survey households in rural Nepal. All problems are not equally important but they influence directly or indirectly the food security condition of the households. In crop production, disease and pests, lack of improved technology and inputs and dependency on rainfall are major problems for low food production. Less productive local breeds and severity of animal diseases are major problems in livestock raising. Rural markets are not well developed for agriculture and livestock products. Hence, farmers couldn't get reasonable price for their produce. On the other hand, due to higher transportation cost, food price in the market is quite high as compared to urban areas. The provision of social services and agriculture extension are weak and concentrated in the district headquarters.

Household Food Deficit Coping Strategies:

More than 75% of households under this study produce not enough food to fulfill their household's food demand. Households that are vulnerable to food security adopt different strategies to reduce, mitigate and cope with risk and shocks that affect them, based on the options offered by their internal resource endowment and their access to external assistance. Households are found to depend on different strategies to cope with food deficit situation. Households with more month of food self -sufficiency (>8 months) may able to manage overall calorie requirements by adopting combination of coping strategies. However these strategies are helpful for less food self insufficient households to sustain their life rather than to make them food secure. These food deficit coping strategies might be ex ante and ex post. The different coping strategies to fulfill household food demand. Among the coping strategies, casual laboring, occupational work, paper and handicraft making, service and business are ex ant coping strategies. Sale of agriculture and livestock products and temporary migration may be both ex ante and ex post coping strategies. Collection of wild food, loan for food, use of saving and use of pensions are ex post coping strategies. But in rural Nepal collection of forest products like fuel wood, fodder, grass, leaf litter etc. are common practices for agriculture and livestock farming. Therefore, collection of forest products other than food items for agriculture and livestock farming is an ex ante coping strategies.

Working as a Casual Laborer:

Working as a causal laborer is widely adopted in rural Nepal, particularly resource poor households are engaged in casual labor for their livelihood. Working

as casual laborer includes agricultural laborer during the agriculture season and non-agricultural laborer such as pottering, carpentry, and work in government constructing infrastructures. Working as an agricultural laborer is widely prevalent because agriculture is the main job of rural people. On the other hand, mutual exchange of labor is common practices in rural agriculture. This arrangement helps small holders to mitigate their own labor shortages during peak season without incurring cash wage. Pottering is done mainly for transporting goods of local merchants and baggage of peoples who are coming to districts from outside (tourist & visitors, job holders and the villagers working out side the district and country). Despite working in local areas, large number of people go to places outside the district and other countries (mostly India) to work as a casual laborer. Men and boys from the marginal farm households in the study area often migrate to the Tarai and India in search of paid agricultural and off-farm work. In rural Nepal, about 20% of households reported that casual labor is one of the coping strategies to maintain food demand. Like wise about 10% of households reported temporary migration to India for casual laboring is another coping strategy. This coping strategy when undertaken as ex ante can be understood as a measure against income shock. But when undertaken as ex post it is a measure to mitigate the income shock.

Occupational work:

Occupational caste groups are tied in a social relationship with households of the upper caste, who customarily pay them a fixed amount of grain after harvest. This traditional patron-client relationship known as Bista system still exists in the rural areas particularly with tailors and ironsmith. For lower caste households, i.e. kami, damai and sarki their occupational work is no loger enouth

to support their year round food demand. Some of them are doing this occupational work just to cope with the food crisis. Amoung them domais are more dependent on their occupational work. They lend their services throughout the year to their Bistas and collect seasonal agricultural products from them during each harvesting time. This traditional system of Bista is also a measure to mitigate income shock for the occupational caste. However, many of the rural occupational people have changed their main livelihood to agriculture or wage laboring to cope with the reduced demand for their services.

Sale of Agricultural and Livestock Products:

Income generation through the sale of agriculture produces particularly cash crops and live animals like goat, poultry and sometimes cow and buffalo are some of the common in house coping strategies for food deficit households. Sale of agriculture produce and livestock is found more in higher food secure households. Such coping strategy is ex ante and a measure against the anticipated income shock, in general. It is due the fact that these households have more land and LSU and can produce more caash crop and livestock products for marketing purposes. In relation to caste/ethnicity, coping strategy through livestock sale is found higher in bahun and chhetri households than magar and occupational castes. But sale of agriculture produce is found higher in bahun and occupational caste. The latter one is indeed a distress sale.

Collection of Forest Products:

Collection and selling of forest products is common practices in rural Nepal. Almost all households have access to either community or government forest resources. Forest access has both direct and indirect impact on the household's food security. Households can collect directly consumable food items for home consumption. They can also collect forest products like herbs, firewood, wild fruits, barks and leaves that can be used to prepare medicine and spices and sell these products for extra cash income. Access to forest resources in rural Nepal is also important to sustain livestock based agriculture system. Collection of fodder, grass, leaf litter and animal grazing are common practices. In this study almost all households collect some kinds of forest products and about 55% of the households collect wild foods for home consumption. Chronic food insecure households and occupational caste are depending more on collection of wild foods to fulfill household's food demand.

Borrowing Food or Money:

Many food insecure households borrow gain as a loan or directly money to cope with food deficit periods. In the beginning, the poor and disadvantaged people knock the door of neighbors, friends and relatives for food grains and money. In extreme cases they go to local landlord and merchants. Generally poor wage laborers borrow from their landlords in advance and pay later. But when there are not many people in the community with the surplus of food then the food insecure households have to visit local food traders to ask for food grains as a loan or visit local landlords and moneylenders and ask for loan. Due to lack of assets that can be used as collateral (that is required by formal credit by formal credit institutions), poor and marginal households rely on informal credit sources with high interest rate. Although interests can be paid through casual labor in different seasons, it could well tax the food insecurity condition and degrade it further. The interest on loan of cash and food received from different informal sources ranges from 20 to 60 percent. In rural Nepal, local saving and credit groups are providing

loans for its members during the time of hardship. They charge low interest rate for the members. But this practices is only common among relatively resource rich households than the poor ones. In this study, chronic food insecure household, chhetri and occupational caste are depending more on loan for food. This measure is virtually ex post measure to overcome the economic shock that can lead a household to a vicious circle if not managed properly.

Other Coping Strategies:

Temporary migration to outside the district (within country) and other countries, occupational work, paper making, pension and use of savings are other food deficit coping strategies. Petty trading is another kind of coping strategy in rural areas. Some people do this business when income is not sufficient to meet household demean for food. For example, some people buy livestock and agriculture products in village and cell them in district headquarters. But these options are not common for most of the food insecure households. Income generation by selling household made products like bamboo products (doko, dolo, mats, etc.) are ex ante and ex post measures also found in the study area. These measures help to over come the economic shocks, as well. Beside these food deficit coping strategies, household members also practice other coping strategies like reduction of amount of diet by all members, reduction of diet by elder members of household, and so on. But this study did not consider intrahousehold food distribution and dietary practices among household members.

This analysis has shown that for Nepal, commonly used indicators of food security at the regional and national level are often poor predictors of household food security. In this study of food security analysis based on calorie consumption at household level, it is found that majority of the households (74%) are food

insecure. Among them 22.7% households are chronic food insecure (consume less than 50% of total calorie requirement). The uneven distribution of resources aggravated the food insecurity status in the study area. All the socio-economic indicators are better for higher caste people. The comparison among the households based on socio-economic characteristics indicates that the depth of food insecurity and the severity of food insecurity are different according to socio-economic characteristics of the households. Both depth and severity of food insecurity are higher in occupational caste, small farms and less LSU holders, laborers, and households having minimum expenses.

Another result from this study is that households adopt combination of different coping strategies like working as a casual laborer, collection of wild foods, seasonal migration to the places outside the district or country, sale of agriculture and livestock products, use of savings, loan for food, and so on. These coping strategies also differ according to level of resource endowment, caste/ethnicity and food security status of the households. Those households who are relatively rich in resource endowment can adopt many ex ante measures, such as, increase in agriculture and livestock products through use of improved technology and income diversification through engaging in professional bobs and business. But the poorer ones are more dependent on ext post measures such as casual laboring, collection of wild foods and migration to outside the district or out side the country to fulfill the household's food demand. They also face more income shocks than resource rich households. The nature of these coping strategies also indicates both their severity of food insecurity and opportunities available for them to manage the food crisis. Policy institutions (governmental and

non-governmental)can response to the food insecure house holds based on their ext ante and ex post coping strategies with targeted policy and programs.

Rural households face many problems that are associated with different aspects of livelihood, such as, food production, livestock farming, irrigation, marketing, delivery of social services and infrastructure development. Some of the problems are manageable for rural people but some need more capitals, which rural people cannot manage without external assistance. This indicates that there is a space for policy intervention by government and non-governmental organizations to over come the problems and alleviate their food insecurity.

Some of the potions to manage food insecurity would be to increase food production through the provision of improved cultivation methods and inputs and to develop infrastructures for easy movement of food items from surplus area of plains (Tarai) to deficit area (Hills and Mountain). On the other hand, provision of off-farm income opportunities for resource poor households is necessary and this needs rapid development of non-agriculture sector in coordination with agriculture sector. Finally consideration of household's socio-economic characteristics in food security management programs will be at the core of successful food security policies in the rural areas of Nepal.

RURAL POVERTY IN INDIA:

In India, poverty is defined on the basis of a minimum per capita daily nutritional requirement of 2,100 calories in urban areas and 2,400 calories in rural areas. According to the report of the Task Force, the poverty line was defined as per capita monthly expenditure of Rs 49.09 in rural areas and Rs 56.64 in urban areas at 1973/74 prices, corresponding to per capita daily calorie requirements in rural and urban areas. The definition covers expenditures on food and non-food

items (such as fuel, clothing, housing, health, education and social services) and ensures adequacy of calorie consumption. That works out at an annual family income of Rs. 11,000 at 1991/92 prices.

For the estimation of persons living below the poverty line, National Sample Survey (NSS) data on household consumption are utilized and are applicable to the national level as well as at State and Union Territories levels. The poverty estimates are made separately for rural and urban areas at the national and State levels. The poverty line defined by the Task Force at 1973/74 prices has been updated for the reference year.

Table: 45

Persons living below the poverty line in India, 1983/84, 1987/88 and 1993/94

(million)

Year	Rural	Urban	Combined
1983/84	180.66 (37.73%)	37.71(21.68%)	218.37(30.08%)
1987/88	168.30 (28.37%)	33.11(16.82%)	201.41(25.49%)
1993/94	141.05 (21.68%)	27.52(11.55%)	168.57(18.96%)

Source: National Sample Survey, Planning Commission.

Some analysts have attempted independent estimations of the poverty line. Other studies have estimated that there was a sharp decline in poverty between 1973/74 and 1986/87. After 1986/87 the decline continued at a slower pace until 1989/90. However, between 1989/90 and 1992/93 poverty increased sharply. Thereafter it declined again in 1993/94 but was still higher than that in 1987/88.

Review of development strategies of past decades:

During the first three five-year plans, (1951-1966) the main emphasis was on achieving higher growth rates. The plans were influenced by the "growth model" of capital accumulation and saving/investment. There was a common belief that as capital was accumulated an growth stimulated. Poverty would be alleviated through the "trickle down" effect of growth. The strategy emphasized investment in heavy and capital goods industries to achieve rapid industrialization and economic development. The development of heavy industries was synonymous with industrialization. Development along socialist lines was presumed to expedite economic growth, expand employment opportunities and reduce disparities and concentration of economic power.

The government announced its first industrial policy in 1956, accepting the creation of a socialistic pattern of society as the goal of economic planning. Accordingly, the second five-year plan (1956-1961) emphasized development of basic and heavy industries. The plan laid special emphasis on the production of iron and steel, heavy chemicals, textiles and development of heavy engineering and machine building industry. The industrial policy of 1956 accepted the establishment of a socialistic pattern of society as a goal. That necessitated the development of industries which produced machines for manufacturing goods. The stress on industries continued during the third five-year plan (1961-1966) as well with stronger emphasis on achieving self-sufficiency in food grains and establishing progressively greater equality of opportunity.

During the above period, no specific attempts were made to remove poverty among individuals. Some rural development projects with a bearing on rural

poverty alleviation were implemented, such as the Intensive Agriculture District Programme (IADP) in 1960 and the Intensive Agriculture Area Programme (IAAP) in 1964, which covered 1596 blocks in 150 districts. Later on high yielding varieties (HYV) were introduced increasing agriculture production.

By the beginning of the third five-year plan, Indian planners felt that the Indian economy had entered the "take-off stage" and that the first two plans had created an institutional structure upon which further progress could be made. Consequently, the third plan aimed at the establishment of self-reliant and self-generating economy. The experience of the earlier plans suggested that agriculture should be assigned top priority. The third plan accordingly gave top priority to agriculture together with emphasis on the development of basic industries.

The over-ambitious plans from 1951 to 1966 met with a number of problems and failures. The Plans were unable fulfill the expectations of the common people; several difficulties and bottlenecks, especially during the third plan, such as inflation, wars, droughts during 1963/64 and 1965/66, and non-achievement of targets etc. seriously disturbed the economy as well as society. In spite of massive investment during the three plans, the living standard of the massive was not improved. Poverty and inequalities in the distribution of income and wealth remained as acute as before. Unemployment increased from 5.3 million in 1956 to about 9.6 million in 1966.

The period of 1966-69 in Indian planning may be categorized as transitional from a "growth approach" to a "distribution from growth approach". During that period, three annual plans were implemented: the fourth plan, which

was due in 1966, and a draft outline of what had been prepared was postponed until 1969 for the revision of objectives and priorities.

The fourth plan (1969-1974) was aimed at accelerating the tempo of development in conditions of stability and at reducing fluctuations in agricultural production as well as the impact of uncertainties in foreign aid. Its objectives were to raise the standard of living through programmes which were, at the same time, designed to promote equality and social justice. The plan laid particular emphasis on improving the condition of the less privileged and weaker sections of society, especially through the provisions of employment and education. efforts were also directed towards reducing the concentration, and bringing about a wider diffusion, of wealth, income and economic power. The average annual growth rate envisaged was 5.7 per cent.

The special programmes introduced for the poor during the fourth plan may be categorized as "area development programmes" and "family beneficiary programmes". The basic objectives of those special programmes were the transfer and creation of assets, skills development and creation of infrastructure as well as directly taking up developmental works in the backwards areas. The major area development programmes launched during that period were DPAP, DDP, ITDP, together with the small Farmers Development Agency (SFDA) family beneficiary programme.

The fifth-year plan (1974-1979) faced a major economic crisis which arose from inflation fuelled by the hike in crude oil prices. The final draft of the fifth plan proposed the achievement of two main objectives: (a) the removal of poverty; and (b) the attainment of self-reliance through a higher rate of economic

growth, better distribution of income and a significant step-up in the domestic saving rate. The fifth plan was, however, terminated in 1978 and the concept of rolling plans was introduced. The first of the new plans sought to reconcile the objectives of higher production with those of greater employment. The focus was the enlargement of the employment potential in agriculture and allied activities, encouragement to the household sector and small industries producing goods for mass consumption, and the raising of the incomes of the poor through a minimum needs programme.

The sixth plan (1980-1985) had the removal of poverty as its foremost objective even though it was recognized that the task could be accomplished only in the long term. The strategy adopted for the sixth and the seventh plans essentially comprised: (a) moving simultaneously towards strengthening the infrastructure for agriculture and industry, in order to create conditions for an accelerated growth in investments, output and exports; and (b) through special programmes designed for the purpose, providing increased opportunities for employment, especially in the rural areas and the unorganized sector, and meeting the minimum basic needs of the people.

The Eighth, Ninth and Tenth plan recognized human development as the ultimate goal of planning. Employment generation, population control, literacy, education, health, the supply of drinking water and adequate food, and basic infrastructure were listed as priorities.

Poverty reduction process is very rigid, although Nepal and India has adopted various poverty Alleviation models recommended by Asian Development Bank and World Bank. Alternative model is potential to reduce poverty as

expected in long run if it is implemented properly. So, in may opinion, the government should invest on children so that they can earn above the poverty line in the future through their capacity. Problems of people in India and Nepal is similar but life expectancy is Indian people is better than Nepal.

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CHAPTER - 6

Perspective Planning for the Infrastructure

Facility Development of Rural Nepal

and India

PERSPECTIVE PLANNING FOR THE INFRASTRUCTURE FACILITY DEVELOPMENT OF RURAL NEPAL & INDIA

The Nepalese polity is also strikingly non-modern in the extent to which state structures and institutions lack independence from social hierarchies. 'The state' has proven to be a very fragile organization once the social hierarchies in which it is embedded came under serious challenge. There is now a major state-building task to be accomplished.

Compared to most other countries in the South Asian region, Nepal was until recently distinctive in that it had not experienced any significant popular political mobilization around anti-colonial or democratic programmes. The state had been constructed from the top downwards. The process of interaction, bargaining and tension between states and organized societal interests that have been central to the construction of accountable, responsive and capable government in much of the world had not occurred in Nepal.

To some extent they have taken the form of a civic social mobilization independent of the democratic parties. More visibly, by far the most effective anti establishment force has been the armed CPN(M). The Maoists are currently the government in much of the countryside, and in the eyes of more than half the population. Recent polls also suggest that they rival the two biggest democratic political parties in terms of level of potential electoral support.

The governing Seven Party Alliance are engaged in negotiations with the NCP(M) over a long term constitutional settlement and short term measures permanently to end the armed conflict. Even if the negotiations are successful, the underlying causes of the success of the insurgency will not disappear. And the insurgency itself, while promising to stimulate many much-needed reforms, also has generated a whole new set of governance problems. Young people with funds now have experience of raising substantial financial resources from the populations they rule, and of excluding the police and other agencies of the formal state. The foreseeable future, even if the Maoist leadership is in government, (a) Some Maoists cadres will remain armed and in control of many rural areas and (b) some will defect and either become locally-based ethnic separatist movements or resort to criminality for their livelihoods.

In sum, any future government in Kathmandu will face governance problems stemming from a combination of (a) historic exclusionary and hierarchical rule and (b) new competition from alternative armed political and criminal groups. It is unlikely that any Kathmandu government will be able to reestablish its authority in many rural areas for some years at least.

The proposals in Sections 2, 3 and 4 are shaped by the need to deal with current political realities, notably (a) the fact that the government in Kathmandu will have limited control over some rural areas and (b) the need to remedy the long term problem of exclusionary, hierarchical rule to reduce the chances of the continuation of the current Maoist insurgency or its return in some modified form within a few years. The proposals address the two main, complementary dimensions of the state-building process:

- Creating governmental organizations that can organize the effective delivery of public services to the mass of the population.
- Creating the implicit 'social contract' that emerges from political tension, interaction, and bargaining between governments and organized societal interests.

Property Taxation for Decentralized Government:

Any sustainable agreement between the political parties is likely to involve substantial decentralization of government. This is anyway desirable given the high degree of centralization of government in Nepal. How will sub-national levels of government (whether 'state/province', district, municipality etc.) be funded? It is not possible to talk in any detail because the basic future structure of sub-national government is unknown at this point, and several alternatives are possible. At present- and not simply because of the recent activities of the governments have low capacities either to raise revenue or to spend money effectively. It is almost inevitable that transfers from Kathmandu will be a major source of income for future sub-national levels of government, because local revenue raising capacity cannot be expanded quickly. It is equally important that local governments do raise substantial revenues.

In addition to the technical case for effective property taxes as an appropriate way of raising local revenue in a progressive way, there are important potential political advantages of doing this. Tapping this revenue source should help both to keep sub-national governments accountable to local populations and to engage people construct only in civic politics. Taxation engages taxpayers politically, and trains local political leaders in negotiating a balance between getting revenue from businesses and driving business away by excessive taxation.

Raising revenue locally is a major challenge for governments in place which, like most of Nepal, are poor and agricultural. There are few very promising 'tax handles'. Especially if not properly supervised from above, local governments often end up trying to raise money from a very wide range of local taxes, charges and fines-e.g. on bicycles, carts, cash crops, transporting produce to market, trading, specific businesses, housing units-that do not actually raise much money but are levied in a rather coercive way by local—tax collectors (mainly to fund their own salaries). That kind of revenue-raising is politically very damaging, and rarely effective in terms of income generation for the government. It is important that Nepal aim at a local revenue system that is (a) simple, in the sense that it is based on one or two taxes that raise significant amounts of money; and (b) supported by central government institutions.

By far the most promising source of revenue for governments is property taxes, on industrial, commercial and residential properties. Partly because they have fallen out of favour in countries like the US and the UK, property taxses have been rather neglected internationally for some time. Interest in them is however growing. This is partly because they are seen as the 'natural' complement to decentralization, and partly because satellite imaging and information and communication technologies are making it easier to assess effectively the taxable value of properties. While property taxes should be collected locally, there are two good reasons why the assessment should be done partly/wholly by central government institutions. One is the local governments do not have the technical competence to do the assessment. The other is that, if the assessment is done locally, political connections are much more likely to result in severe underassessment of liabilities. Not only does this immediately reduce the tax yield, but

the perception of unfairness undermines the willingness of other people actually to pay their dues. If a central government institution does the assessment, then central government knows what the local tax yield should be. It can publicize and use this information to compare and check on the performance of local governments. One cannot simply give powers to sub-national governments to raise property taxes and expect much to result. They need both help and a degree of supervision and monitoring from effective central institutions.

There are a wide range of issues that would have to be discussed if this idea were taken seriously. One important qualification is that it takes quite some time to do assessments for a whole country. Among the attractions of the scheme are that (a) there is a large fund of international experience in this area; (b) it should be relatively easy to train Nepalis to do the technical work; and (c) innovations in information and communication technologies, especially in GIS (geographic information systems), are making the task easier.

Politically-Constructive Rural Development:

There is a great need for public spending of various kinds in most rural areas on Nepal, both on (a) physical infrastructure of various kinds (local roads, drainage, water, irrigation etc.) and (b) a wide range of non-hardware activities to improve health, education, agriculture and other services.

The existing capacity of the government line agencies is weak for a range of reasons that extend beyond the effect of insurgency. There is no reason from history to be optimistic that performance can be improved, substantially and nationwide, very quickly. This is all the more true now that there has been some (limited) flight of professional people from the country in recent years because of

the insurgency. It is questionable how many engineers, for example, will actually be available to design and oversee rural construction activities. Alternative means of providing services and infrastructure should be welcomed, especially if they are likely to contribute to state building. There already exists a diverse patchwork of rural development projects of various kinds, some of them successful, most of them funded by a range of aid agencies and international NGOs, which depend more or less completely on non-state agencies, especially NGOs and user groups, for project design and implementation.

If there is a peace agreement, the following situation is likely:

- There will be strong pressures for all kinds of public spending in rural areas, to address some of the issues of poverty and exclusion that helped cause the insurgency initially, and to try to prevent a recurrence.
- Aid donors will be willing to fund such activities, possibly generously.
- Because there are a relatively large number of aid donors in Nepal, and they
 are not well coordinated, it is likely that a number of agencies, both official
 agencies and international NGOs, will work largely independently. A great
 deal of high level professional energy will go into managing the separate
 programmes of the separate donors agencies.
- The capacity to prepare and appraise proposals, to monitor the quality of construction work and to spend money effectively will all be very scarce. Not only will money be wasted, but there may be a great deal of corruption, benefiting mainly the more privileged sections of society (government officers, NGO staff, contracting companies), that will further contribute to alienating people from the state and from electoral democracy.

There are clearly ways of alleviating these problems in the longer them. They include greater effective cooperation among aid agencies, improving the capacity of the line agencies of the Government of Nepal, and perhaps even limiting the aid inflow. But what can be done in the short and medium terms, assuming that the scenario outlined above is valid? The Government of Nepal

could instead invite donors to pool their resources into one or two rural development funds :

- Providing constructive competition for both small scale NGO activities and the regular programmes of the line agencies of the Government of Nepal.
- Diverting limited high level professional person-power from managing individual donor activities to more direct management of these funds.
- Encouraging local actors of all kinds-communities, use groups, NGOs, politicians, local governments-to design and implement innovative rural development activities through open-minded and competitive funding.
- Providing local level politicians and political groups, including the Maoists, with incentives to become actively involved in organizing people to request and then in promoting, designing, monitoring and perhaps even managing projects at the local level, and thus in strengthening their relationship with the electorate.
- There should be a high level of transparency and publicity about their procedures and operations, to encourage people to engage with them, and to minimize the degree of mis-use of funds.
- Bids would to be made for projects on a competitive basis, and evaluated and approved by technical committees.
- The technical committees would be free to select implementing agencies. Provided only that adequate technical is maintained with government agencies where required –as for instance over standards of road or well construction-implementation contracts could be awarded to, for example, government line agencies, NGOs, user groups, or local associations of various kinds.
- The central implementing agency would concentrate on (a) project assessment, accounting and monitoring, (b) on activities designed to maximize public information about projects, especially at local level; and, eventually (c) on conducting and publicizing the results of post-project evaluations.
- In the allocation of funds, some kind of quota or preference would be given to poorer districts.

Some final comments on this proposal:

- It is envisaged that local politicians would become involved because that is their natural intermediary role in a country like Nepal. For example, acting as 'promoters' and 'pushers' of government development projects is the staple activity of actual and aspirant local political leaders in India. It sometimes uncovers effective leaders from disadvantaged social groups.
- To protect the scheme against too much political influence in funding allocation, there would be a case for it being managed by a semiautonomous agency overseen jointly by the Government of Nepal and a group of aid donors. This might be politically acceptable in return for long term funding commitments. The nearest good model is the very successful Joint Sino-American Commission on Rural Reconstruction (JCCR), which managed large aid inflows into Taiwanese rural areas in the 1950s and 1960s.
- It is quite consistent with simultaneous direct donor support to the government line agencies, and indeed the implicit competition between the two might be constructive.
- This hybrid scheme would probably not be the best in a more ideal world, but might offer a way of coping constructively with a range of pressing actual problems.

India is sitting on the blitzkrieg of becoming a super power and it is the Indian rural sector that is going to drive that super growth. The Government of India has made rural economic development in general, and rural infrastructure development in particular, is a key priority. India has launched the "Bharat Nirman" (Building India) Program, which entails investing over US\$ 40 Billion, equivalent to 5 per cent of FY 2005 GDP, in six critical areas of rural infrastructure over four years starting from 2005

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CHAPTER – 7Conclusion and Suggestions

CONCLUSION AND SUGGESTIONS

Nepal is a small landlocked country about 500 miles long and 100 miles wide and it has population of around 23 million with the growth rate of 2.37 percent per annum. It is located in the Himalayan Mountains and bordered by China in the north and India in the south, east and west. With the per capita income of US\$220, Nepal is one of the least developed nations in the world. Infant mortality rates are among the highest in the world and life expectancy at birth among the lowest. Half of the population lives below the absolute poverty line. Additionally, the country's lack of infrastructure, such as transport and communication, has severely limited its economic opportunities. Historically Nepal has relied heavily on foreign aid for development. Finally, as Nepal is a landlocked nation with a small domestic market, and limited natural resources, it must have been relied on its neighbor, India, for any international market opportunities.

Despite the planned development efforts during last four and half decades, Nepal has not been able to improve economic condition. The government must consider strategies for reducing poverty and raising living standard. In addition to the equity considerations, the barriers faced by women and the poor limit their ability to provide the basic needs of their families. For this the government must try to utilize its own resources, human as well as natural, in order to raise the standard of living of the Nepalese people. There are various sectors, in which the government must draw its intention in order to bring the economy to path of development.

Agriculture is the backbone of the Nepalese economy, means of livelihood for majority of the population and the main source of gross domestic production, income and employment generation. It, therefore, rightly deserves the top most priority because the economy is still caught up in the initial stage of its development where the income generated through industrial sector as well as internal market expansion from non-agriculture sector depends upon the development of agriculture sector. The agriculture sector in Nepal contributes 41 percent of the GDP and employs and estimated 81.2 percent of labor. As the majority of the population depends totally on agriculture, it is the key to the economic development of Nepal. In order to achieve the goals of improving the lives of the people in Nepal, significant investment in irrigation, fertilizers, diversifying crops, forest management, and expanding rural infrastructure are needed.

Nepal has over 6,00 rivers and streams and tributaries. Based on annual run-off of rivers the theoretical potential hydropower of Nepal is estimated to be about 83,000MW, which is one of the largest potential in the world. Sites, which are technically feasible for development, could yield and estimated 44,000MW of installed capacity and about 95% of this could, based on the experience of the past evaluations, be expected to be economically viable. However, Nepal has so far been able to utilize only a small fraction of this potential resource. Till now only 261.918MW (0.3% of the total potential) have been installed. At present electric

power supply is available to only 15 percent of the population. A large amount of power produced in Nepal can be easily exported to neighboring countries. In addition to power generation, some of the identified projects can bring enormous benefits in terms of irrigation, flood control and inland navigation, beyond the Nepalese territory.

Nepal has been a tourists' paradise for many years. as a country of amazing attractions, both natural and man-made, it offers a memorable experience for every visitor. Nepal is the home to the world's highest mountains, including Mt. Everest (8848m). Enchantment is everywhere, be it one the shoulders of high snow-fed mountains, or terraced farmlands scrupulously carved like stairways on the hillsides, or cascading mountain rivulets and rushing rivers, or in forest full of wildlife, flowers and bird song. The total foreign exchange earning from this sector in the fiscal year 1998/99 was equivalent to Rs. 12,167.8 million, which was 15.9 percent of the total foreign exchange earnings. Nepal, a beautiful Himalayan kingdom, can create tourist magnetic atmosphere if the government as well as private sector take initiative in constructing more tourism infrastructure development.

In addition to the Water Resources, Nepal has a huge potential of Human Resources, which, if utilized effectively, can be the major factor for the development of Nepal. The national human development index (HDI) for Nepal, computed as an un-weighted average of values achieved in level of living, knowledge and health, is 0.378. the absolute value of Nepal's HDI is only 45 percent of the global HDI. Within the South Asian region, all countries, with the exception of Bhutan and Bangladesh, enjoy a higher HDI than Nepal. Average life expectancy, within the last two decades, has increased by 13.5 years. However,

average life expectancy is only 55 years (1994 figure). Infant mortality, while decreasing by approximately eight percent annually within the last two decades, nonetheless, claims one out of every 10 births. Infants in the rural areas are exposed to 1.6 times the risk of death compared to those in the urban areas. Incidence of maternal mortality is one of the highest in the world. Literacy rate has been increasing very slowly in Nepal. The current national literacy ratio is 40 percent. Only about 72 percent of the 2.7 million 6-10 years-old children are enrolled in school (1995 figure). Gross enrollment in primary schools, however, nearly doubled from 1.75 million in 1884 to 3.26 million in 1995. The number of primary school teachers nearly doubled between 1984 and 1995. rates of repetition and dropout are very high even at the primary level. Only 10 percent of all the children enrolled in grade one complete primary school (i.e., grade five) without repeating any grade. The economy is overwhelmingly rural and agriculture-based. The rate of growth of the working-age population is high at 3 percent/year. Work participation starts at an early age. More than four-fifths of the workers are engaged in the low productivity agricultural sector. The service sector accounts for one-sixth of the work force. Only a small proportion of the workers are engaged in industry, of which two-thirds are in manufacturing. Unemployment rate is high at 14 percent (1997 figure). The scale of underemployment is higher still: approximately one-half of the labor force works for less than 40 hours a week. Seasonal and long-term movement of labor is large in scale and has grown further within the last decade. While the landless, the highly indebted and members of the "low-caste groups" appear to migrate in larger proportions, even the relatively well-off individuals and households join the ranks of the labour migrants. The scale of international (principally India-Nepal) labour movement also appears to have increased within the last decade. The inflow of laborers from India, who are engaged in various sectors, e.g., agriculture, industry, construction and informal sector trades, is also adversely and significantly affecting the employment opportunity of Nepalese laborers.

During the Rana period before 1950, Nepal was not interested in foreign aid, as it was viewed as an intrusion. However, since the 1950s, Nepal has opened up to foreigners and recognized the possible benefits of modern technology. The government began to accept foreign aid, and since then Nepal has continued to become increasingly more and more dependent on it. Foreign aid inflow into the country has steadily increased and aid in the form of loans is much larger than grants.

Indeed, the central constraint on Nepal's development over the last few decades has not been the scarcity of financial resources, but the lack of effective governance and well functioning institutions, which can adequately perform the vital state functions that are essential for a sound economic and social development process. There are many manifestations of the governance problem in Nepal, including weak institutions and procedures, lack of ownership of development projects and programs, lack of accountability and mismanagement of resources, failure to provide effective delivery of public services, including law and order, and the absence of a well-functioning judicial system, all of which are reflected in increased corruption.

Nepal's social, financial, and political conditions prevent it from improving its macroeconomic condition, yet it is apparent that something must be done to take the economy to the path of development. If policies were implemented to

restrict immediate focus on water resources and human resources development together with good governance, Nepal would benefit by improving its economic and social conditions. Such focus would giver time for its newly democratic government to stabilize, to work on improving relations with India, and to begin to rely less on foreign aid. Hence, for the development of Nepal, the policy of the government of Nepal should be towards improving the agriculture and power generation sector as well as basic infrastructure including transport and agriculture and power generation sector as well as basic infrastructure including transport and communication.

This study basically aims to see Living standard of Rural people in various Plans in Nepal follow the same pattern or not. The difference in plan pattern has been identified with the help of difference in objectives, strategies and policies along with the existence of socio political and economic situation in which the plan was prepared.

Just after few years after the downfall of Rana Rule, the then government made an stride in the direction of improving the wellbeing of people by starting the first development plan in 1956. It is the first turning point in economic development of Nepal because the plan had envisaged creating a socio economic environment so that people of Nepal could also live a happy and prestigious life. During Rana regime, most of country resources were utilized for the pleasure and prosperity of few Rana rulers and their relatives. The plan was not successful as thought. The main reason of the unsuccessfulness was given to the lack of basic infrastructure, i.e. information about the economy for formulating an efficient plan. Hence the second plan was not started just after the end of first plan. The second plan started one year late. Thus there was a planning holiday of one year.

This holiday was used in preparing the basis of planned development. However, it was successful in the way that it had opened a door of planned development in Nepal and had tried to divert the resources for uplifting the life of mass.

So far since the commencement of first plan in 1956, Nepal has completed ten plans till 2006 in a long period of almost of fifty years. All are of five year plans except the second one that was of only three years extending from 1962 to 1965. First seven plans were completed by Panchayat system. Multi party system under the kingship had completed eighth, ninth and tenth plans. This is the final year of ongoing three year interim plans that has been started after the downfall of kingship because of historical people's movement in 2006. In the whole period of planned development, all plans have not been found of the same pattern because of the changing socio political condition and demand of time regarding the switch in economic policies. So far, three major turns have been found in the total period of almost half century of development plans in Nepal that have been mentioned below.

Excessive Control and Regulation:

The control-oriented development approach of the past created many problems. Increased government control, adhoc regulations and procedures, license requirements and other forms of counterproductive bureaucratic behavior tended to discourage decision making process and delays in the disbursement of budgets increased project implementation cost and resulted in the under utilization of the administrative capacity.

Inefficient public Enterprises:

The performance of state owned enterprises reached a stage of great inefficiency, indifference and apathy. The financial liabilities of these enterprises exceeded the capacity of the government. These enterprises suffered as a result of over staffing, political intervention, inefficiency and the lack of accountability.

Inefficient Investment Portfolio:

Cost-benefit ratios and other criteria which measure the economic and social benefits of projects were neglected in the course of selecting projects to be implemented in various sectors and sub-sectors. The interrelationship among projects and alternative investment options were not taken into consideration. As a result, investment could not be channeled to productive sectors. Many projects were not justifiable from economic and social points of view.

High cost of Economy:

In view of the inaccessibility and the ruggedness of terrain, it was not unusual for the production and delivery costs to be high. But in addition to these realities, the cost component pf the economy had been further aggravated by the dominance of donor driven projects, economically unproductive investment, lack of discipline, limited economic resources of projects, unwarranted expansion of bureaucracy and lack of efficient implementation capabilities.

Inefficient Administration:

Inefficiency in the administration has led to a further deterioration in the government's institutional abilities to effectively implement development

programs. The civil service that had been expanding continuously was found under utilize and lacked motivation. Traditional administrative and economic structures, highly centralized authority and the lack of sufficient power at the local levels were some of the reasons of inefficient administration.

Faulty Planning Process:

The planning process remained very weak and was poorly institutionalized. While projects were chosen on an adhoc basis without due consideration to any social or economic criteria, government investment in projects were not based on any long term sustainability considerations. In Consequence, there was always a scarcity of resources at the implementation phase. Political decisions were often autocratic and feudalistic. As a result, the planning process lacked accountability and was unable to induce genuine popular participation. Most of the programs became centrally directed in addition to being donor driven.

Sustainable Economic Growth:

One of the principal objectives of the plan was to achieve a high and sustainable rate of economic growth without which there was no possibility of achieving economic prosperity and its continuity. The economy would not be able to fulfill the development aspirations of the common people without a sustainable and high economic growth rate. The Ninth plan was determined to achieve a high a sustainable growth rate in the development efforts of the country. Sustainable economic growth also implies the management of the available bio-physical resources in the most productive manner without damaging or depleting these resources. The demand for such biophysical resources should not exceed their sustainable supply capacity. However, the present population of the country is

already placing excessive demands on existing resources. If the present trend of population growth is allowed to continue, it will not be possible to meet the demands of the people without causing permanent damage to the bio-physical resources.

Therefore, it was highly essential to reduce the rate of population growth in order to achieve a sustainable economic growth rate. To achieve the above mentioned objective, this plan had called for the involvement of private sector and increased people's participation at the community level. The plan had made additional efforts to increase the productivity of labour force and to make the financial investment more productive. Similarly, programs with higher comparative advantage were to be implemented in agriculture, industry, tourism and other sectors. Comparative advantage could be achieved by the utilization of low cost hydro-electricity and other natural resources in the production process. This would produce a comparative advantage especially in energy-oriented industries and irrigated cultivable land. For this purpose, the advanced technology and institutional reforms would be made indispensable tools of support to the private sector and organization down to the village level and production would be increased on the basis of equity and capability.

Poverty alleviation:

Despite the development efforts of the past, the population living below the poverty line has been steadily increasing and the majority of such poverty ridden people live in the rural areas. The biggest challenge for the then government was to alleviate poverty from the rural sector. It was the root cause of many of the existing problems of Nepal such as population growth, environmental degradation

and social anomalies. Therefore, another principal objective of this plan was to alleviate poverty.

Although poverty is the result of diverse factors, the basic causes of poverty in Nepal are the dependence of the increasing population on limited economic resources and low rate of economic growth. The visible impediments to economic growth such as natural constraints, preliminary stage of development efforts, low productivity, subsistence agricultural system and slackness in the expansion of non-agricultural sector were found the major factors for a weak economic base. In this perspective, emphasis was given on formulating integrated and interregional programs that primarily focus on the creation of productive assets base and additional employment opportunities to alleviate poverty. Extension of social service like health education, vocational training, drinking water, effective management and protection of natural resources were to be taken as the additional measures of poverty alleviation. Most of the programs would be implemented with the objective of benefiting the population living below the poverty line.

Reduction of Regional Imbalances:

In Nepal, poverty has acquired spatial variations. Despite policy-pronouncements and efforts in the previous plans, disparities between rural and urban areas and among development regions have increased. Over the recent year, there has been an increased trend of migration from rural to urban areas. Hills to Terai migration continue. If the disparity in urban and rural income is not reduced, this trend my gain greater momentum. Similarly, in comparison with other development regions, far western region and mid western region lag far behind in respect of infrastructural and social service facilities and other development

works. The living standard of the people of these regions have adversely affected by the growing disparity of income distribution caused by these factors. This has further complicated the creation of equal opportunities for sharing development benefits. While allocating resources in order to achieve regional balance, due attention had been paid to the necessity of creating physical infrastructure in these less developed regions. With this objective, while special emphasis had been given on the extension of rural roads, due importance had been attached to the provision of facilities like primary health care, education and drinking water in rural sector. The regional complementary interrelationship between Hills and Terai arising out of the existing agro-ecological condition could be beneficially utilized for agricultural and industrial specialization.

Therefore, the current and future development perspectives would be accorded special emphasis in order to benefit from the ecological interrelationships between Hills and Terai. Focusing on the development of less development regions, special emphasis would be laid on the reduction of regional imbalances. In order to achieve the principal objectives mentioned above, it had become essential to improve economic standard of rural people to achieve the self-sustaining rural development through the increased provision of social, economic and market services, and increased access to drinking water and alternative forms of energy.

To promote good-governance and effective service delivery:

By strengthening the value of rule of law and state machinery, creation of people's participation, transparency, accountability and a corruption-fee environment, the access of all Nepalese including those excluded in economic and

social service delivery will be increased. For this, the private sector and civil society (including NGOs and community organizations) will be accepted as partners in development. Necessary laws, policies and programs will be revised, formulated and implemented in addition to an emphasis on decentralization, institutional strengthening and capacity development.

To increase investment in physical infrastructure :

In addition to putting special emphasis on reconstruction and development of social and physical infrastructure, new concepts will also be utilized. In the context of infrastructure, strategy will be adopted to construct mega, medium and small-scale projects with the help of identification and participation of local people. In addition, the road that connect district headquarters, north-south corridors, rapid transit roads and road networks will be given special emphasis. Similarly, transport mediums like cable cars and ropeways that are significant from the perspective of tourism will be developed. Small and medium hydroelectric projects currently being constructed will be completed. Initiatives will also be taken to make mega hydroelectric projects started. Information and communication technology will be extensively expanded. In the case of infrastructures build through large investments, priority will be given to have their regular maintenance and quality improvement.

To give emphasis on social development:

Additional investment will be made on education, health, drinking water and sanitation and other social development activities to develop human resource and raise the living standard of the people. In order to make the services from these sectors effective, the responsibility of managing these services will gradually be transferred to the local bodies.

Clear policies, institutional structures and programs will be implemented focusing on the excluded groups like Adibasi Janajatis, Dalits, Madhesi, women, and people with disability, extremely poor people and the people of remote geographical areas who are in this state due to prevailing discriminatory practices in society and weaknesses of state structures as such. While adopting the inclusive development process, participation of excluded groups in development investment and outcomes will be ensured and geographical, economic, social, gender solidarity and re-integration will be emphasized. This approach seeks to make special efforts in ending all forms of discriminations, promoting multiculturalism and guaranteeing peace. In order to ensure a basis for inclusive development macroeconomic, social and political development processes will gradually be engendered. Special programs for areas falling in the shadow of development programs like karnali zone and regions along district/international borders will be carried out. Programs will be launched to bring all types of excluded groups of people in the main stream of development. Even in the 21st century, many individuals, groups and communities are still living a life that is unacceptable from a humanitarian point of view and from the perspectives of food security, health, education and other socio-economic conditions. Therefore, it has been thought that targeted programs will seek to end these conditions. Similarly, the people affected by conflict will be provided with relief and they will be rehabilitate and social reintegrated.

Nepal has been trying to develop the country with the help of various development plans. So far, ten such plans have been completed. A huge

infrastructure has been created. Nepal has a wider prospect of fostering development if it can minimize its challenges in the path of development on the one hand and intensify the people's participation on the other. However, its challenges are not always the same. Fro example, the major challenges at present are the presence of various types of conflicts, lack of economic confidence among domestic and foreign investors and lack of rule of law that has been causing the vandalism at all parts of the country. The country has opportunities also along with challenges. The opportunities like challenges also change time to time. Because of changing nature of opportunities and challenges, the development plans in Nepal have been found taking new turns in the course of time. So far, there has been found three major turns in the history of planned development of Nepal. First turn is associated with the fifth plan which had been made basically to focus the regional development and strengthen the involvement of government control in economic activities through the policy of party less Panchayat system. The second turn is found with the launch of eighth plan which was the first in itself after the restoration of democracy in Nepal it had focused the concept of privatization and economic liberalization. The third turn is in the form of three year interim plan that has been started after the downfall of kingship because of the historic people's movement in 2006. The turns have been analyzed basically on the basis of visions/objectives and strategies of the plan on the one hand and the change in socio political situation in the country on the other. As far as the turns are concerned, these are good until and unless these produce positive economic results. The effects of turns are positive. Nevertheless, these are not that much effective as expected. Various factors are responsible for this. However, lack of accountability at various levels, absence of good governance and lack of people's

participation to the desired extent are some of the major impediments on to the path of development plans.

CONCLUDING REMARKS:

On the whole, the data on Living Standard of rural people in Nepal are sketchy and fragmentary. It is, therefore, necessary to gather both the micro and macro level data while analyzing the problem of Living Standard of rural people in Nepal. Data on landowners, tenure, income, food production and consumption, employment, literacy, health, and other demographic measures are helpful in understanding the dimensions of Living Standard of rural people. These data assess the socioeconomic conditions of people and can be considered determinants of Living Standard of rural people in Nepal.

On the other hand, the available macro level data on Living Standard have questionable reliability, and the scholars who have relied heavily on such data seem to have misconstrued the dimensions of Living Standard in Nepal. Similarly, the micro level data are still too sketchy to assess the overall Living Standard situation.

However, considering some of the micro and macro aspects of the relationship between land ownership and poverty, food consumption and poverty, and access to public services and poverty, Nepal's current socioeconomic condition is staggering and seemingly hopeless. With the exception of the food consumption data, all other data confirm that most rural Nepalese are poor.

Rural poverty in Nepal is associated with a number of economic factors : population growth, minimal landholding per capita, poor productivity of land, lack

of marketing facilities, lack of alternative employment opportunities, poor educational attainment, and the overall socioeconomic structure which favor the rich over the poor.

The other dimensions of persisting low Living Standard are due to existing sociocultural values. In Nepal, although many intellectuals believe that the present socioeconomic structure is built on oppression and exploitation of people, they want to preserve the present structure because it gives them prestige and wealth. The people of this structure because it gives them prestige and wealth. The people of this culture are affluent and wealthy, and their position will be threatened if poor people are allowed to participate equally with them.

The Nepali caste system is, in fact, defined in terms of endogameity, where certain peoples are allowed to conduct only certain types of work. The Brahmanical values are deeply embedded in the total way of life of the people. This has invariably led towards the process of sanskritization and Hinduization, giving more orthodox, stratified caste hierarchical values, even for those who were originally outside the caste hierarchy. These deeply held sociocultural values inhibit cohesion within and between groups and encourage poverty.

A third dimension of the persisting low Living Standard in Nepal is the lack of sincerity in government programs. Many of the government's village development programs, including land reform, do not improve the socioeconomic condition of the poor because it is not committed to the programs.

SUGGESTIONS:

• The government should make policy for the control of growing corruption.

- The government policy should be directed towards improving the capability of human resources.
- The policy should be made to attract foreign direct investment for the utilization of available huge amount of water resources, which have impact on different sector (agriculture, power generation, etc...). For this, the attraction should be towards small dam projects, the cost of which is relatively less than that of large dam projects.
- Efforts should be made to improve the basic infrastructure that help the tourism sector, which is the major sector for the foreign exchange earnings of the country.
- It is necessary to properly understand the nature of rural Living Standard so that a realistic program to help the poor can be devised. The vital information needed in understanding the rural low Living Standard situation in Nepal has been discussed in this paper. In addition, the views of the poor families must be obtained. This will provide an in-depth understanding of the economic conditions and the sociocultural values of the rural people.
- A serious anthropological study should be undertaken to find out the inadequacies of development projects aimed at reducing rural poverty.
 Though these projects were aimed at helping the overall conditions of the rural poor, they did not reach the poor. Why?
- The assumption that the poverty must be studied exclusively with reference to the condition of the poor themselves is false. In the context of Nepal, a

research proposal to study the "rich" is desirable because it gives an understanding as to why other Nepalese are poor. It is necessary to look at the sociology of the rich to grasp their culture and way of life, and also how they become rich. This is immensely difficult because it is the rich who supply funds to study the poor.

- Poverty is a microphenomenon as well. To this extent, its solution is
 possible only through microlevel planning. Microlevel planning will be
 effective only if the program of government decentralization is effectively
 carried out.
- Reaching the Unreached through Public services;
- From digital divide to digital opportunities for sustainable development and economic growth at grassroots level;
- Sustainable development of SMEs-Reducing spatial disparities and enhancing opportunities for employement and development;
- Fostering agricultural growth, poverty reduction and sustainable resources use;
- Sustainable Development and Earthcare Policies in the areas of: Water, Energy, Education, Health, Agriculture and Rural development, and Biodiversity;
- Village cluster development through sustainable societies in a Viable Rural Space;
- Grassroots level Governance;

- Moving towards "ONE INDIA" to usher in a remarkable change in the life of the common man;
- Poor to be the real target of secular public policies;
- Why not give a choice to the potential NREG Candidate-to go for the employment guarantee or sign up for the skill initiative?
- Promote Yeshasvini under the NREG Scheme;
- Improve governance, education and healthcare through ICT;
- Broadband services over a technology neutral platform in rural and remote areas;
- Dairy Cooperatives in every village for procurement of milk to enable the farmers to enhance their income;
- Rural electrification through renewable sources.
- Greating the right Human resources to reach heights in food processing;
- Digital Network Farmers (AGRISNET, AGMARKNET, AgRIS, eCooperatives, Digital SMEs, etc.)
- Mainstreaming ICT for Grassroots level Planning for economic and social Development (DISNIC).

Thus, with the help of good governance, if the foreign assistance can be utilized effectively in these three sectors (Human Resources, Water Resources, and Tourism), there is a possibility to bring the Nepalese economy to the path of development.

Several important new schemes for social uplift and poverty alleviation have been launched in India during recent reform years, including EAS for providing 100 days of unskilled manual labour to the rural poor, PMRY which is aimed at providing work for unemployed youth through the creation of microcenterprises, NSAP which encompasses old age pensions, family benefits in case of death of the family breadwinner and maternity benefits, the Rural Group Life Insurance Scheme with a subsidized premium, the National Programme of Notional Support to Primary Education (also known as the Mid-Day Meal Scheme) aimed at providing notorious meals to children in primary school, the Mahila Samridhi Yojana to promote the savings habit among rural women.

The weaker sections, especially scheduled castes/scheduled tribes and women, have been given importance in special programmes on poverty alleviation and employment as well as in several other programmes. The Public Distribution System (PDS) was recently streamlined in order to target the poorer sections of the population.

The progress of economic reforms in India since 1991 the emphasis on poverty alleviation programmes has not diminished. Government intervention has continued in all rural development and welfare programmes. The revised development strategy lays greater emphasis on providing employment opportunities to the rural poor. EAS is now being extended all over the country. The other anti-poverty programmes has also been restructured to equip them to achieve their objective of poverty alleviation. Several government programmes are aimed at strengthening the rural markets to make agricultural produce more economic for the benefit of the rural poor.

The government has also continued to provide institutional security for the rural poor. Investment in agro-forestry and export orientation of agriculture produce will also lead to improvement in the rural areas. The rural credit institutions have continued to receive support and have been further strengthened.

Efforts have also been intensified to strengthen the grass-roots level democratic institutions. The seventy-third amendment of the Constitution has now received constitutional sanction for the village panchayat institutions. Panchayats are being formed in all States and powers are being delegated to them. These institutions will now have control of all rural development programmes. The policies of the Government of India are to encourage the growth of non-governmental organizations (NGOs). Their participation is generally encouraged as a matter of strategy in all rural development programmes. The government has taken several steps to strengthen the safety net for the rural poor. JRY, PMRY, NSAP, the Mid-Day Meal Programme, the Indira Awas Yojana, PDS and a number of other programmes now provide a reasonable safety net for the weakest sections of Indian society. The basic minimum services identified for priority are steps in that direction.

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