

CHAPTER - I

INTRODUCTION

1.1 Background

Nepal is a small land locked developing country situated on the southern slope of mid Himalayas. The area of Nepal is 147181 sq.km, which has about two third of land occupied by hills and mountains. The population was 23151423 (2001 census). Topographically, Nepal is divided into three main ecological regions having mountainous area includes the highest mountains, hills and terai (low level). The mountains area includes the highest mountains of the world including Mount Everest (Sagarmatha 8848 m). Nepal is located between 26°4 to 30°27' altitude and 80°4 to 88°12' east longitude. Nepal is bounded by China in north and India is south, east and west. Its average length which runs from east to west is 885 km and width varies from 145 to 241 km a mean of 193 km.

Nepal is a land of multi-cultural diversity and multi ethnic groups. Nepal has a long complex and diverse history. The social and cultural life of people has unique feature. People originated in Tibet live in mountainous ecological belt and have the practice of Buddhism. Midland valley and terai different economy status and education who live in rural and urban area.

People engaged in different types of social and economic activities to earn money in order to fulfill their basic needs, which was also known as livelihood strategy. It is a continuous and changing process. Some of the occupational caste group have given continuity to their traditional ways of earning livelihood and while others have changed or diversified. Nepal characterized biophysical and socio-cultural diversity. Traditional ways of earning livelihood among rural people have become very difficult due to the entries of agriculture and livestock products. Development activities have played an important role in changing their livelihood strategies.

In the case of Nepal the food security condition of rural people is very poor and miserable. The life of people and the agricultural activities of the country over the years have not been improving as expected. Majority of the

population are surviving their daily life under insufficient food availability. When a locally self-sufficient community no longer remains so, the ups and down evolve, all the member of the community are compelled to change and adopt improved agriculture activities to uplift their livelihood status which has been changing with modernization and globalization. Day to day population ratio is increasing but production and availability of sufficient food is decreasing due to the low productivity. That support to increase food deficits situation at rural area.

The Mid-West region of Nepal is characterized by poor access to markets, limited economic opportunities and minimal provision of basic government services, leading to low health and education indicators. Poverty rates are highest in the remote Mid-West region where the population has limited access to paved roads, health and education facilities, and market centers. Lower castes represent the poorest segment of the population in the hills, followed by other Ethnic castes. The mid hills and mountain ranges are still suffering from food deficits. The rough terrain, poor water supply, and lack of access to agriculture inputs has forced many people to leave their land barren, losing their livelihoods in the process.

The increasing pressure of population on limited arable land, and little potential to expand it, contributes to food insecurity with few options for farmers. In much of the Mid-West region, farmers grow staple crops on non-irrigated land. In Dailekh, where livestock has been the traditional agricultural activity, Despite its unique environment and great potential for NTFPs and tourism, it is one of the most underdeveloped regions of Nepal.

Dailekh is a hilly district at an altitude between 800 m to 1800 m, and comprises of steeply sloped terrain. 80 percent of the land area is cultivated. Maize is the single and most important crop in the Hills. Paddy is grown on irrigated land during the summer season. In the Hills, the lands/terraces located on the lower slopes near rivers are generally irrigated. In these areas, rice is the major crop in summer, followed by wheat in winter. On the rain fed upland areas, maize is the major crop.

The present study deals with the comparative change in food security situation of the community people from Salleri VDC of Dailekh district. Dailekh district is situated in mid-west development region of Nepal with 55 VDCs and one Municipality. This VDC is situated in the North- East part of the historical place of Panchakoshi and 20 kilometers far from district headquarter. Out of these 55 VDCs, Salleri is the study area of Major Intervention and Socio-Economic Impact of Food Security Project where the food insecure and conflict affected population is on majority. Major population of this study areas were displaced by running conflict between government and revolutionary group.

The food defecate situation in Salleri VDC remains of major national concern. Summer crops of rice are affected by drought, flood and landslides. Winter crops of wheat and barley were severely affected by localized natural disasters during the pre-harvesting period such as diseases, pest, drought and hailstorm.

To improve the food security status of respected study area United Nations/World Food Program (UN/WFP) and partner organizations has done intervention through food security project (Protracted Relief and Recovery Operation-PRRO) from 4 years with different agro-production increment related activities. Which were supportive to improve the coping and livelihood status of the study area's peoples.

1.2 Statement of the Problem

Food insecurity is one of the major problems of the rural community. Community peoples are suffered from more food vulnerability due to the low production and having their traditional occupation as a way of livelihood. Their traditional occupation has faced different challenges due to modernization and globalization. Communities have been affected by the low production, lack of improved agriculture technology, irregular and poor road accessibility, markets facility and have experienced rapid socio-economic, cultural changes over generation. Their way of earning for coping differ by the development activities and these changes have been enumerated with case material from the survey of Salleri VDC of Dailekh district.

Dailekh is an economically poor district. People are shifting from their traditional occupation and agriculture system to the cash oriented agricultural practices. The cash practice has changed the socio-economic situation of community people and has made it different to continue their traditional livelihood strategies.

Most of the people of the total population of this study area are engaged in or depend on agricultural occupations. unsatisfactory yields, population growth and lack of income generating activities causes maximum pressure to natural resources due to the exploitation of natural resources, resulting environmental degradation and unemployment. On the one hand, local economy is affected due to unscientific and unsystematic farming system, deforestation, unplanned construction and utility of physical infrastructures. And on the other hand, unfavorable geographical situation have also affected to agriculture system, forests and animal husbandry. After intervention by the food security project modern and improved agro farming system, animal husbandry, cash crop farming, vocation training, construction of agro production related physical infrastructure and sustainable agriculture system has support to uplift the socio-economic status of community people. Therefore, having realized a strong necessity to examine and explore these problems, major interventions and impact through project activities this study has been proposed.

1.3. Objectives of the Study

The main objectives of this study is to examine the major intervention and socio-economic impact of food security project at Salleri VDC's people and examine the status of the adoption and diversification from their traditional occupation. How is it influenced by the project intervention? The specific objectives of this study are as following;

1. Specific Objectives

- a) To examine the major intervention of the project activities in study area.
- b) To find out the effectiveness of the food security program in study area.
- c) To analyze the major constraints during the project intervention period.

1.4. Importance of the Study

Generally, food insecurity has relatively affected disadvantaged communities and occupational caste group with poor economic and educational condition. This study helps to explore the previous and present food security and coping status of these communities through the major intervention and socio-economic impact through food security program at proposed study area. With the improved agriculture technology, infrastructure development, selection and application of improved seeds varieties and vocational training. So, it can answer the questions, how they changed and developed their food security status through the project intervention or how they diverted from higher food deficiency through the project support? This study hopes come up with comparative answer about the impact of development activities on the traditional farming, coping and livelihood strategies of these communities in the study area.

The availability, accessibility, utilization and stability of food status of this study areas peoples is very weak. This helps to discuss and report about the hunger of the community people. Food aid has become a source of food availability in this area where there is food deficiency. Majority population is marginalized from the main stream of the development. It has its own identity and traditional lifelong occupational but it is affected by modernization, globalization and technological improvement to explore the progress or sufferings of the deprived group due to improved access.

The proposed study area, Salleri VDC is located in a rural area of Dailekh District. Where any types of research work on major intervention and socio-economic impact of food security project has not been done till now. In the present contest, Many NGOs, INGO and also government's different agencies are supporting to improve the food security status of the community people. Salleri VDC has more then thirty percentage food vulnerable community. Researcher had tried to explore the real status of that community, which will be a helpful matter for the planners as well as development worker for the betterment of the food insecure community in the days to come.

1.5 Limitations of the Study

This present study was based and limited on project implemented area ward no 1, 3 and 4 of Salleri VDC Dailekh, where UN/WFP, Winrock International, SAC Nepal and other stakeholder had supported through different food security status incrementing related activities. The study is very specific like that of case studies. The limitations of this study are as follows;

1. The study was concentrated in the Salleri VDC of Dailekh district therefore the generalization of this study may or may not be applicable to the all other parts of Nepal.
2. This study was completed within the given tentative time frame.
3. Simple statistical tools were used to analyze the data obtained.
4. Electronic devices (Computer, Calculator, Telephone) were used for the processing of data.
5. The questionnaires and the interviews schedule was focused on the intervention and impact study of food security project at respected communities.
6. One individual was selected for the interview or questionnaire among the selected households by using the random sampling method.
7. 20% HHs were randomly selected for the HHs interview among the whole HHs of three wards of Salleri VDC.
8. Some key informant interview and focus group discussions were held outside from the study area to achieve more and reliable information for the study. Like as; CDO, DDC, DADO, NARC, Respected VDC Staff, Food Security related program implementing INGOs and NGOs.
9. The outcomes and recommendation of the study may not be applicable to all cases all over the nation.
10. The given work schedule was followed strictly.

1.6. Organization of the Study

Collected and recorded primary and secondary types of data and information during the study were processed using different methods of data analysis. After processing and analyzing the collected data from study area on major intervention and socio-economic impact of food security project in Salleri VDC, Dailekh the organization of the thesis is divided in the following chapters;

1. Chapter - I : Introduction
2. Chapter - II : Literature Review
3. Chapter - III : Research Methodology
4. Chapter - IV : Physical Setting and Project Information
5. Chapter - V : Data Analysis and Presentation
6. Chapter - VI : Summery, Conclusion and Recommendation
7. References
8. Photo glimpse
9. Annexes

CHAPTER - II

LITERATURE REVIEW

2.1. Concept

The World Food Summit of 1996 defined food security as existing “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life”. Commonly, the concept of food security is defined as including both physical and economic access to food that meets people’s dietary needs as well as their food preferences. In many countries, health problems related to dietary excess are an ever increasing threat, In fact, malnutrition and food borne diarrhea are become double burden. Food security is built on three pillars:

-) Food availability: sufficient quantities of food available on a consistent basis.
-) Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
-) Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

Nepal, one of the least developed landlocked countries in the world, is ranked 165 on the Human Development Index 25.4 percent people are living below the poverty line. A study conducted by Oxford University for UNDP in 2010 revealed that 65% of people in Nepal are living below poverty line (*HDI, 2004*). The study used multidimensional indicators of poverty within the framework of human development concept which is far beyond consumption and calorie intake indicators being used by Government of Nepal. There is an increasing gap between haves and have not in the recent past. The total population comprises of 22.8 middle class (daily earning US\$ 2 per day), less than 1 percent upper class (daily earnings over US\$ 20 per day) and rest nearly 76 percent (income less than US\$ 2 per day) as poor (*ADB, 2010*).

Agriculture remains Nepal’s principle economic activity, which employs over 71% of the population and contributes 32.12% to the GDP. Over 2/3rd small landholders are still practicing subsistence agriculture for livelihood and thus

food insecurity to the ever increasing population especially poor is the central problem. A total of 1.4 million (*High Level Commission on Scientific Land Reform, 2010*) who have been engaged in agriculture are landless. Many of them do not have their land to set up shelter and thus are living squatting public land. Among the landless squatters largely are *Dalits*. The landless people are bound to suffer from exploitations and bondage. There are 690,000 tenants who have been tiling land on crop sharing basis. Owing to the lack of information, lack of knowledge about legal process and evidence of tenancy, they have been denied from the tillers rights as per Land Act 1964. The situation of resource discrimination in Nepal is rather serious. A total of 5 percent people own 37 percent of the arable land whereas 17 percent of tillers own only 15 percent of land. There exists gender-based discrimination in land holding where only 10.8 percent women own the land (*HDI, 2004*). The poor tillers who do have no other options for employment and livelihood skills but to work in agriculture are the landless. This is one of the structural causes of poverty leading to other forms of discrimination and exploitation.

The first Nepal living standard survey (1995/96) concluded that the population below poverty line is 42 percent. Moreover, Nepal living standard survey - 2003/04 concluded that about 31 percent people are living under poverty line. This survey shows that the poverty in Eastern Development Region 29.3 percent, Mid-Development Region 27.1 percent, Western Development Region 27.1 percent, Mid-Western Region 44.8 percent and far western development region 41.0 percent. Similarly, the poverty in mountainous ecological region 32.6 percent hill 34.5 percent and Terai 27.6 percent (CBS).

Since 10th period plans, the government of Nepal has adopted the issues and priorities in line with agriculture transformation by strengthening agriculture, economical and social services at all level. Recognizing the contribution of I/NGO sector in national development over last two decades, the national plan is expecting the sector to invest more in the programs of national priority. Capacity of the local and community based organizations will be enhanced so that they are able to contribute more on facilitation, monitoring

and social mobilization. Focusing peace, reconstruction and rehabilitation as one of the priority programs the plan aims at contributing to increase the food security status and construction of agro production related physical infrastructure for the sustainable agriculture development.

Pardhan (2006), Rural people in Nepal have since long adopted indigenous knowledge and skills to use locally available natural resources to sustain their locally. The indigenous knowledge and skills from the seniors have been transformed to the young generations through apprenticeship.

2.2. A conceptual framework for analyzing food security

A globally accepted definition of food security is the one adopted by the World Food Summit (WFS) held in Rome in November 1996, i.e. 'Food security exists when all people at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (WFS 1996).

A close association between poverty and food insecurity becomes obvious once the above definitions of poverty and food security are accepted. Indeed the WFS noted that poverty is 'a major cause of food insecurity and sustainable progress in poverty eradication is critical to improve access to food' (WFS 1996). From this it is also clear that any measure that contributes to improving food security will also contribute to addressing the problem of poverty and vice versa.

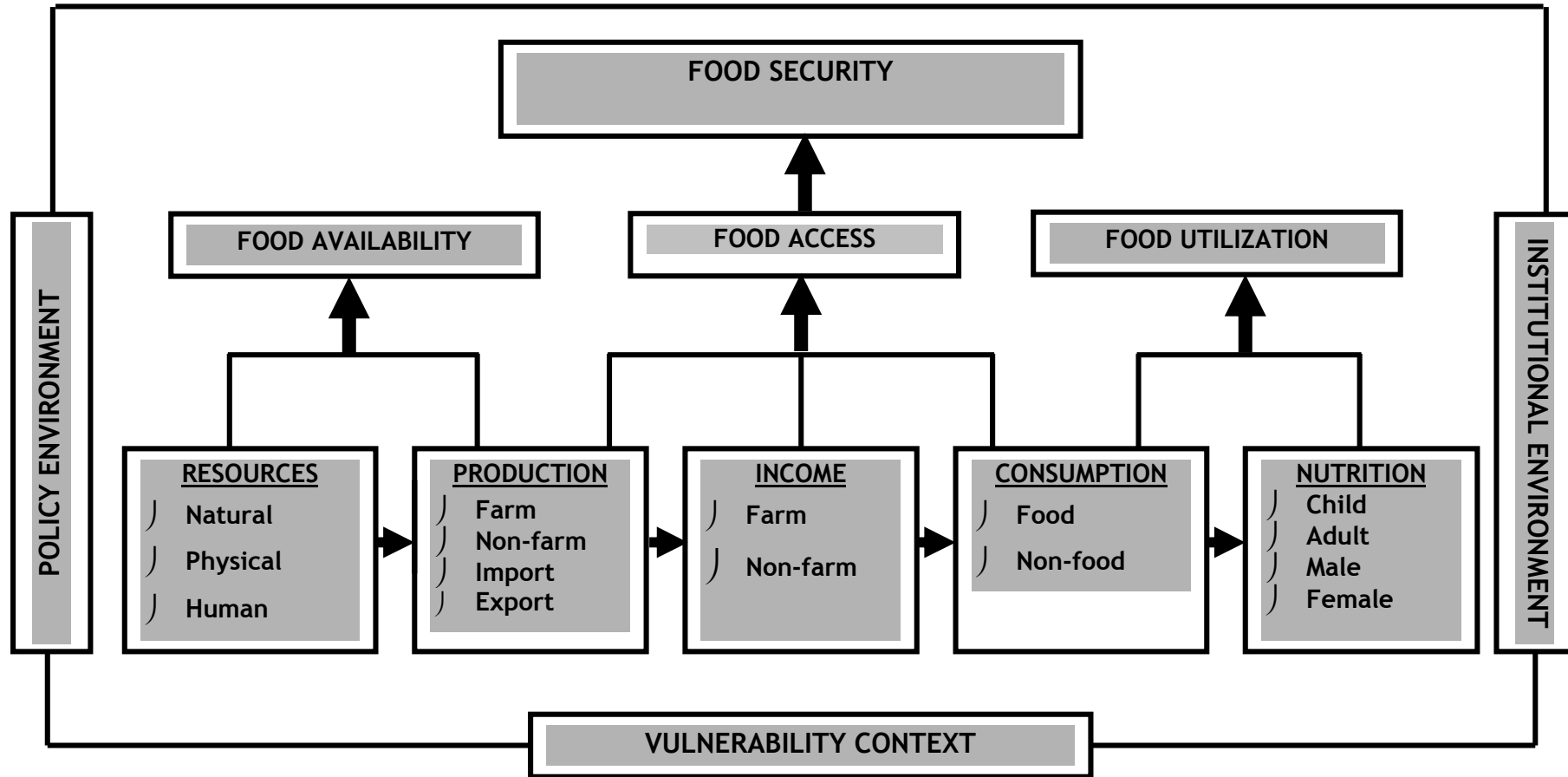
The conceptual framework developed from these definitions, and the elements that constitute them are used in the present exercise. This framework addresses important concerns of UNDP and FAO in guiding their missions. If the WFS definition is accepted, then the three major sequentially interlinked components of food security - food availability, food access and food utilization - must be a central focus of the analysis. These three components are themselves determined, individually or jointly, by a number of factors. The broad conceptual framework adopted for the analysis of food security concerns is presented in Figure 2.1.

For the purpose of food security analysis, **Food availability** means a situation in which the food required to maintain a safe and healthy life is available for all people in the country and therefore, is determined by net domestic production and the balance of imports and exports. Domestic production is further determined by a variety of factors like natural, physical, human and technological resources. Exports and imports are determined by the level of production and cost structures mediated by trade policies through structures of tariff and duties. Food availability is broadly reflected in the food supply situation including secure food stocks.

Access to food implies that the people in a given location have both physical and economic access to obtain food. Physical access implies a food supply system which ensures easy availability of required foods, and is determined by local production augmented by imports and by the food distribution system. Economic access implies that those requiring food have the economic means to acquire food that is physically available. It is determined by income status of people and by other entitlements through transfers. Access to available food is also determined by the consumption pattern within the household units and by intra-household food distribution systems. Food distribution, employment and income levels and non-market entitlements reflect access to food.

Food utilization relates in part to the capacity to translate food efficiently into energy. This is determined partly by the level of nutritional knowledge and practice. It is also determined by standards of health, which in turn are a function of the physical environment in which people live, their access to safe drinking water, access to health care facilities, etc. - all of which help determine their ability to metabolize food efficiently. Another important aspect of food utilization relates to food consumption patterns within households. Here special attention needs to be paid to the issue of children and women who often become victimized in terms of intra-household food distribution. These issues can be addressed within an analysis of the nutritional situation of different household members.

Figure 2.1
Conceptual framework for food security analysis



Source: Adopted from UNDP and FAO Main Report, 2008

All of the factors that influence food availability, food access and food utilization and thereby the food security situation of households and individuals are affected by the policy and institutional environment under which they live, over which they have little control. The vulnerability context of households is influenced by time trends in variables like population growth, resources, technology, shocks resulting from factors like bad health, natural calamities, economic events and conflicts; and seasonality of prices, production, employment, etc., all of which eventually affect individual and household livelihood systems. Proper understanding of household behavior in responding to such external effects is crucial in analyzing food security in both static and dynamic contexts. This framework has guided the analysis of food security in this report.

2.3. Status of Food Security of Nepal

Agriculture in Nepal has long been based on subsistence farming, particularly in the hilly regions where peasants derive their living from fragmented plots of land cultivated in difficult conditions. Government programs to introduce irrigation facilities and fertilizers have proved inadequate, their delivery hampered by the mountainous terrain. Population increases and environmental degradation have ensured that the minimal gains in agricultural production, owing more to the extension of arable land than to improvements in farming practices, have been cancelled out. Once an exporter of rice, Nepal now has a food deficit.

The situation is high dependence on agriculture as more than 80 % households depend on agriculture. This statement is generally made about agriculture in Nepal. But, even though, a large number of people maintain their farming, they also receive a substantial income from non-farm sources, usually from service sector including labor migration, which is used for maintaining a living in the rural areas. If this income had not been received, a large number of farmers would have been food insecure than what is seen now. But high dependence on agriculture is still continuing, as there is no shift of people from farming to industrial sector in Nepal (Adhikari, 1996).

Low landholding and fragmentation of land is also blamed for growing food insecurity in Nepal. At present, Nepali farmers own, on average, 0.9 ha land. This land is also distributed at an angle, so that a larger proportion of farm households have less than 0.5 ha of land. The data indicate that the bottom 20 percent of households receive only 3.7 percent of the total national income, while the top 10 percent capture close to 50 percent (CBS-2007). This land is also severely fragmented, as the system is that land is divided equally to all sons. From this year, daughters are also entitled to get equal share (as compared to sons) on parental property, but need to return to parents (or brothers) once they are married. Even though Nepali farmers' average land holding is 0.9 ha, this should not pose a problem in producing more, provided there is good environment like economic incentives, good technology and required infrastructures. The countries having high land scarcity than that of Nepal are food self-sufficient and also exporting more.

Data obtained from Government indicate that Nepal faced deficit in production in the mid 1990s. But positive balance was obtained since the end of 2000s. There are still uncertainties as to why production increased in this period when there were no any favorable environments for agricultural sector. The data available for 11 years (1997/98) to 2007/08 indicate that there was deficit in 1997/98, but there was again some surplus for another eight years. The surplus ranged from 0.3 million to 0.05 million MT. But in 2006/7, there was sudden deficit of 0.2 million MT of food grain, but in 2007/08, there is slight surplus of about 0.1 million MT. Again in 2008/09, the deficit increased to 132916 mt, which was about 2.5 % deficit of the total food required. The fluctuation in surplus and deficit is basically due to fluctuations in weather (rainfall) pattern. When there is good rainfall, production increases. This is because of the fact that irrigation, particularly full year irrigation, coverage is less. In 2006/07, production was very low and deficit reached a low level in recent period. This was basically due to drought, which also continued in 2007/08. It is estimated by WFP, GoN (MoA) and FAO that food deficit in coming years will increase because of decline in production of wheat and barley. This report further shows that on average, 66% of the HHs in Nepal faces the food insecurity problem. As coping

mechanism, 43% households reduced meal, 30% households consumed seed stock, 20% children dropped out of school and 73 % of the hill and mountain HHs sent migrant labour (at least one member of the household). While sending household member away is also a general practice, this has increased in time or number of migrants in 73 % of the household.

The food production in the hilly region is very fluctuating. This correlates to weather patterns. Because of the sloppy nature of land and less availability of plain valley land, it is also difficult to develop irrigation. As a result, much land in the hills is rain-fed. Therefore, there is fluctuation in production of food. This fluctuation has increased in recent years because of disturbance in normal rainfall pattern. This is considered as one of the impacts of climate change. In general, there is also declining trend in production of food. In the last two years, deficit has grown.

In terms of development regions, eastern and western development regions are surplus in food, but they are also showing declining trend. The Eastern Development Region which used to produce significant amount of food over its requirement is also facing a declining trend in food production, especially in the last two years (2005 and 2006). The production of Western Development Region is consistently increasing except in the last two years (2005 and 2006). Food deficit is extremely high in Central Development Region, which includes Kathmandu valley also. But food crisis is not generally heard in this region. One of the reasons for this is that it has access to market and food is available in the market for the purchase. But of course, this Region is also diverse in terms of urbanization and accessibility to road.

The overall situation of Mid-Western region is that food production and sufficiency is fluctuating here. But in recent years, this has also been declining. On the other hand, there is wide disparity within this region. The Terai of this region produces more food which balances the average situation of the region. But as seems that the situation in hilly and mountain regions within this development region is precarious. The Far Western Region is deficit in food

production consistently in recent years. But there is again slight increase in 2007-08 (CARE Nepal, 2010)

The analysis of surplus and deficit in food balance was done using the five major cereals (rice, maize, wheat, millet and barley). But it is also a fact that many more other crops are grown. Other important crops and commodities like livestock products, poultry, fish, vegetables, fruits, buckwheat, beans, oat, tubers (yam, taro, sweet potato etc), and potato are not included in the food balance sheet. These crops and commodities have been increasingly contributing to food and nutrition security as they are supplying calorie, nutrients and cash income to people but they are not counted in food security calculations (CARE Nepal, 2010).

2.4. Food Security in Dailekh

In the past, Dailekh was considered a prosperous region for its subsistence agriculture. It is still a place with immense potentialities, but now suffers from food deficits, diseases, and various unfulfilled basic needs. Now, Dailekh has been known as a food defecated district. It is a case of failure of government's policy on agriculture and food security. Many of the unintended consequences of the development programs also played an important role in growing food insecurity in this district.

According to a report (WFP, 2007), two-thirds of the Village development Committees (VDCs) of Dailekh have been suffered from high to severe impact of the conflict. There was a direct correlation of intensity of conflict with its impact on food security. Therefore, the livelihood systems of these VDCs were severely and adversely affected. Hunger and famine have now been regular features in Dailekh. The food crisis continued in Dailekh even after the peaceful ending of armed conflict. In early 2008 too, the food crisis is reported to have occurred in the mid and far west, especially in the five districts of Bheri. The food stocks at the household level have decreased by half because of the constraints in supply and increase in price.

The report of WFP, 2011 clearly shows that that food assistance in Nepal helps to eliminate hunger and food security which in turn helps to get the quality of education investing significantly to improving the production, income, health as well as nutrition of families.

In recent times, Dailekh has earned its improved food producing capacity and food securing mechanisms. On the other hand, it has been able to bring new developments in food production. This transition has been a huge burden on the people of Dailekh. The traditional farming system in Dailekh has been characterized by wide diversity and adaptability to the agro-climatic conditions, which also varies from one small unit to another. Because of the need to adapt to the very diverse agro-climatic regions, farmers have developed a wide diversity in crop-growing practices, crops, and in social practices, including food culture, exchange practices and social relations. The annual needs of food in this district is 54404 mt. out of this 51014 mt. food is produced within district and 3390 mt. food is needed to export from outside for the consumption of the people in this district (DADO- Dailekh, 2067/68).

CHAPTER - III

RESEARCH METHODOLOGY

This chapter deals with the research methodology applied in the study. This is purely academic research based on social science. For any kind of research, it is necessary to adopt some kinds of specific methods for the collection of data and required information to undertake a successful research. This chapter discusses with the research methodology adopted for this study. A survey of 51 household has been carried out in the study area. This chapter elaborates on the sampling procedure, technique of the data collection and types of data collected for the study.

3.1. Research Design

The study was micro level study on impact of food security project. With the view of achieving research objectives, the design of this study was based on both descriptive and exploratory ways with the help of proposed research tools and technique. The study had explored and described the major intervention and socio-economic impact of implemented food security project assisted by UN/WFP and implemented by Winrock International and others at Salleri VDC. It was also explore both prospects and challenges of the food security project from where community members were benefited. Data had been taken from survey method. Primary and secondary data was collected, analyzed and interpreted for the final presentation of the research report. So the study will be descriptive and analytical in nature.

3.2. Sources of Data Collection

Research is not an easy task. It needs various tools and methods for the better result. Considering the same principle various methods were used to collect data from ward no one, three and four of Salleri VDC and the intervention and socio-economic impact of food security project.

Basically this study was intended to be more empirical with relevant data collected from the field. Structured and unstructured questions, field

observation, personal interview, key informants interview, case studies were the tools used for this purpose. Secondary data were collected from central library, relevant publication including books, magazines, news papers, journals and even unpublished documents.

3.3 Rationale for Selection of the Study Site

Salleri VDC of Dailekh district is the selected study area where different donor agencies had supported to implement the food security project due to the more vulnerability and conflict affected area where several castes peoples were living form many years ago. The proposed study area Salleri VDC is located in a remote area of Dailekh District. Where any types of research work on food security related issues has not been done till now. In the present contest, many NGOs, INGOs and Government are also supporting for the food security and livelihood sector for the community. The modern/improved development activities bring the changes in the traditional occupation and status of many communities. Therefore, researcher was interested to know the major intervention and socio-economic impacts of respected study areas community comparatively who had traditional cooping and livelihood strategies and presently, adopt modern and improved strategies. The real status of that community is explored by this study, which becomes helpful and supportive document for the planners as well as development worker for the betterment of the rural food insecure communities.

3.4. Universal and Sampling Procedure

The total number of household according to the VDC profile - 2067, Salleri VDC is 715 from nine wards. Among them, the universe considered for this study was total 252 household populations from ward no. one, three and four of Salleri VDC, Where food security program has been implemented before four years to improve the food security status of the community people. Stratified random sampling was done to select informants using random number table with selecting five random number and conduct 51 household interview (20% of total households) to collect information among the total number. All of the

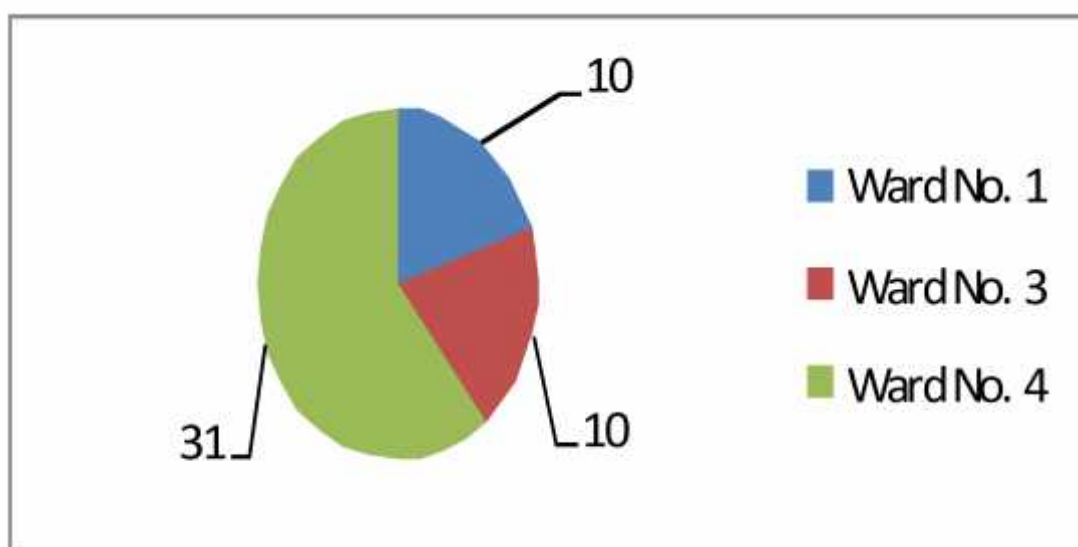
respondents were from program implementing respected community members. Most of the interviews were done with the family head of house as well as were also done with the housewife and other family member who are available at that time. Key informant interview (KII), direct observation (DO) and case studies were collect form the study area to gather more information for the study. The respondent for Key informants interview were selected on the basis of some basic criteria such as; district level government responsible authorities, VDC staff, agriculture programs implementing INGOs/NGOs district level staff member, Donor staff, Selected political leaders of the village. The detail of household sampling plan implements in the study is presented in the Table 1.

Table No. 3.1
Households sampling data of the respondents form study area.

Ward No.	Total HHs no. of study area	Respondents		Rem.
		Selected sample size	Peren tage	
Ward no. 1	46	10	20	
Ward no. 3	50	10	20	
Ward no. 4	156	31	20	
Grand Total	252	51	20	

Source: Field Survey - 2012

Figure No. 3.1
Ward wise household representation in study area.



3.5. Methods of Data Collection:

This research has been conducted by employing various methods for data collection. Both primary as well as secondary data has been collected. The researcher himself collects the primary data from the respondents by conducting interviews and informal group discussion during the meeting carried out in the open place with the community people.

3.5.1. Household Questionnaire Survey

The major method to collect the data of this study was interview. The interview of the respondents was taken through structured questionnaire to the household respondent. Interview with the family head as well as other available member of the household were conducted as per the survey questionnaire (in annex). A structured schedule was used for collecting data in the present study. The questionnaire has structured into five specific sectors. First part is structured to take detail information about respondents household. Second, food sufficiency and major intervention of food security project. Third, productivity and effectiveness of the project. Forth, technical support and last part is structured about constraints and their management. These sectors have again small details. Household questionnaire were developed into Nepali language for easily administrate interview at the field while conducting with the household respondents during the field survey.

3.5.2. Interview with Key Informants

To gather more and qualitative information Key Informant Interview schedule was developed and used as a data collection tools for this study. Specially, this technique has been used only for informants district level responsible authorities - CDO, LDO, DADO, NARC Specialist, VDC representative, district level INGOs/NGOs senior level staff member, Donor staff and local political leader of this study area to collect additional information thought interview about the major intervention and socio-economic impact through food security project implemented in Salleri VDC. The questions were asked in

interview to collect additional qualitative information too. The interview was taken as a cross checking for data obtained from sample survey. The data related to some issues about food security project implementation strategy, implemented activities, and effectiveness of projects, prospects, faced problems and suggestion for the better improvement in the days to come.

3.5.3. Direct Observation

Nearly three weeks time was spent in the research area as field observation and questionnaire survey. During the study period and field visit to the community, most of the household were using improved farming system, improved varieties of crops in their farm. In the households visited, the main people of the family, housewife were interviewed. The major intervention, positive and negatives impacts of the food security project were discussed with the family members during the visit. A special attention was paid on those families who were involved in income generating activities, and families having access on improved agriculture technology. While interviewing with the respondents, the researcher observed and recorded the activities/status of the family members, respondents and other people of the society. The way of working of respondent, livelihood status, traditional/modern occupation, farming system, family structure, adopted improved technologies and other related information to observed, evaluated and obtained through this technique. More reliable and qualitative information through direct observation checklist was obtained and used as a qualitative data for this study. Such observations have helped to make the judgments on the information provided by the household respondents and other key informants.

3.5.4. Case Studies

Case studies were taken to know about their traditional occupation, past status, their perception, involvement on new activities, major achievement and the challenging factors to their survival and their improvement on social-economic status. During the fieldwork, researcher collected at least 3 case studies/success stories in Salleri VDC where the participants are different socio-

economic status and food availability ranks from before and after the program benefited community member. Participants were from sex, caste and all the age group. Social inclusion was sensitively followed. To gather more reliable information for case study template was designed and used as a data collection tools for this study.

3.5.5. Secondary Data Collection

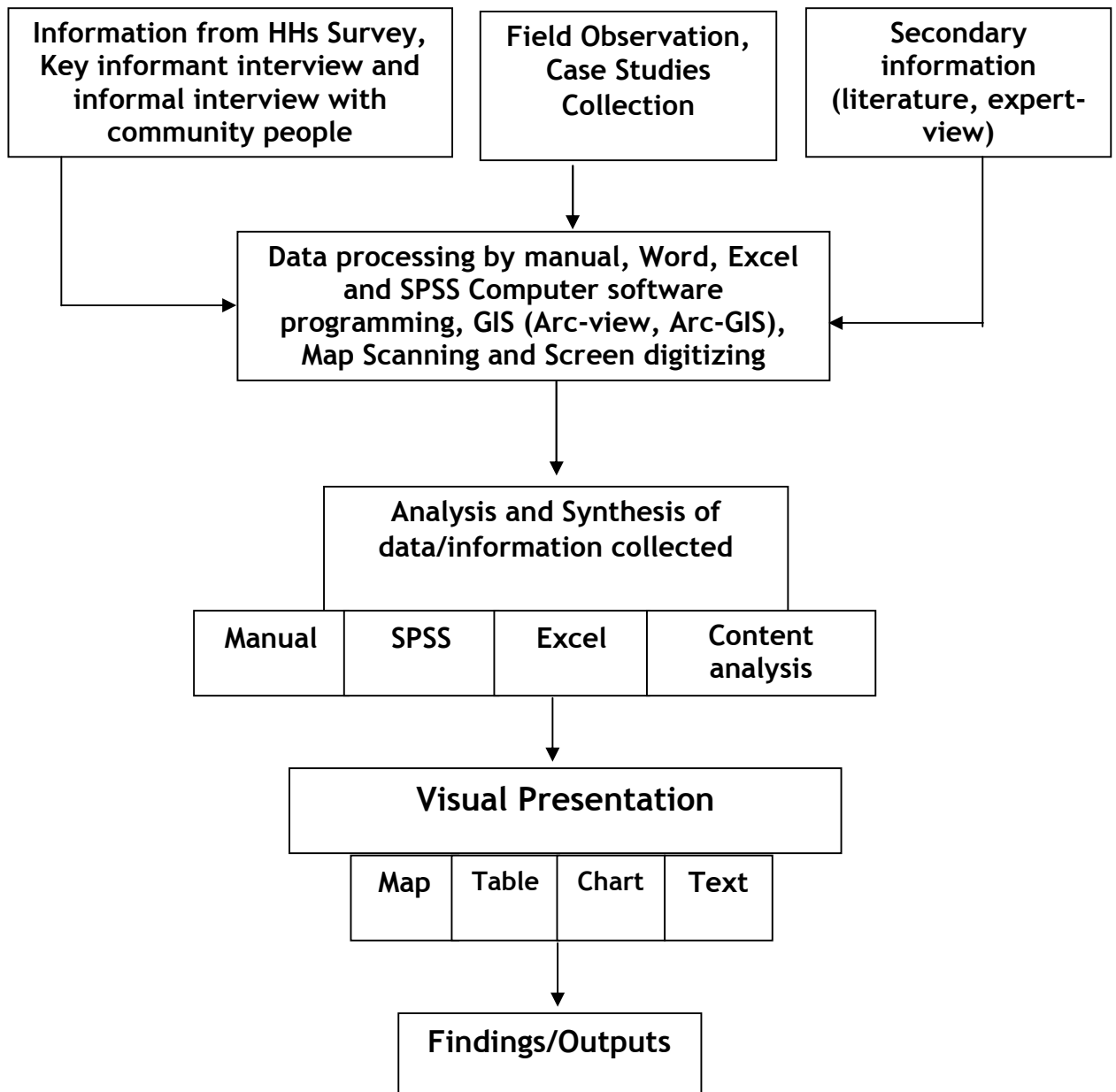
Most of the secondary data relevant with this study were collected with different governmental and non-governmental organizations working in the food security related field in Nepal. The literature review includes reports published through different organizations, books related with food security and article published in different article and daily newspaper. The major offices visited during the literature and data collection are United Nations World Food Program, United Nations Food and Agriculture Organization, Nepal Development and Research Institute, Winrock International, District Agriculture Office, Dailekh, District Development Committee, Dailekh, VDC office Salleri, Dailekh and related websites. Discussion with the key persons of the organizations was also made during the literature collection and before visiting the study area for field survey.

3.6. Data Analysis and Interpretation

Data generated during fieldwork as well as the data collected from secondary sources has been scrutinized, classified and tabulated according to demand of issues discussed in different chapters. Basic statistical tool and methods have been utilized to analyze results and interpret the concepts, results and discussions. Qualitative data has been analyzed using simple statistical tools like frequencies and percentage distribution. Qualitative data has been analyzed descriptively and to extend possible with the use of table and distribution. Based on the finding of analysis, careful interpretations of the findings are made. During the analysis of the collected data from primary and secondary sources, MS-Word, MS-Excel, SPSS software were used for statistical analysis and ArcGIS is used for the analysis of geographical information of this study area. Various

tables, charts, figures diagrams and maps were created by using computer software programs and cartographic techniques. Qualitative information provides depth and detail understanding of respondent's experience and attitude which are presented in the box form.

Figure No. 3.2
Schematic Framework for Data Analysis



CHAPTER - IV

PHYSICAL SETTING and PROJECT INFORMATION

4.1. Brief Description of Dailekh District

Dailekh District is one of the remote hilly districts of Bheri Zone of Mid-Western Development Region in Nepal. This district is surrounded by Jajarkot district in eastern part, Accham in west, Surkhet in South and Kalikot district in North side. Its district headquarter is Dailekh Bazaar which is located almost in center of the district. This district is divided into 55 village development committee and one municipality.

According to District Demographic Profile of Dailekh (CBS, 2068), this district has 2,71,416 population. Total numbers of households in the district is 49,647 and average household size is 5.47 whereas population density is 181 per square kilometer. The literacy rate of the district is 48 percent whereas male has 64.7 and female 32.3 percent. This district is categorized in 63th number on national human index and 64th number on poverty ranking at national level.

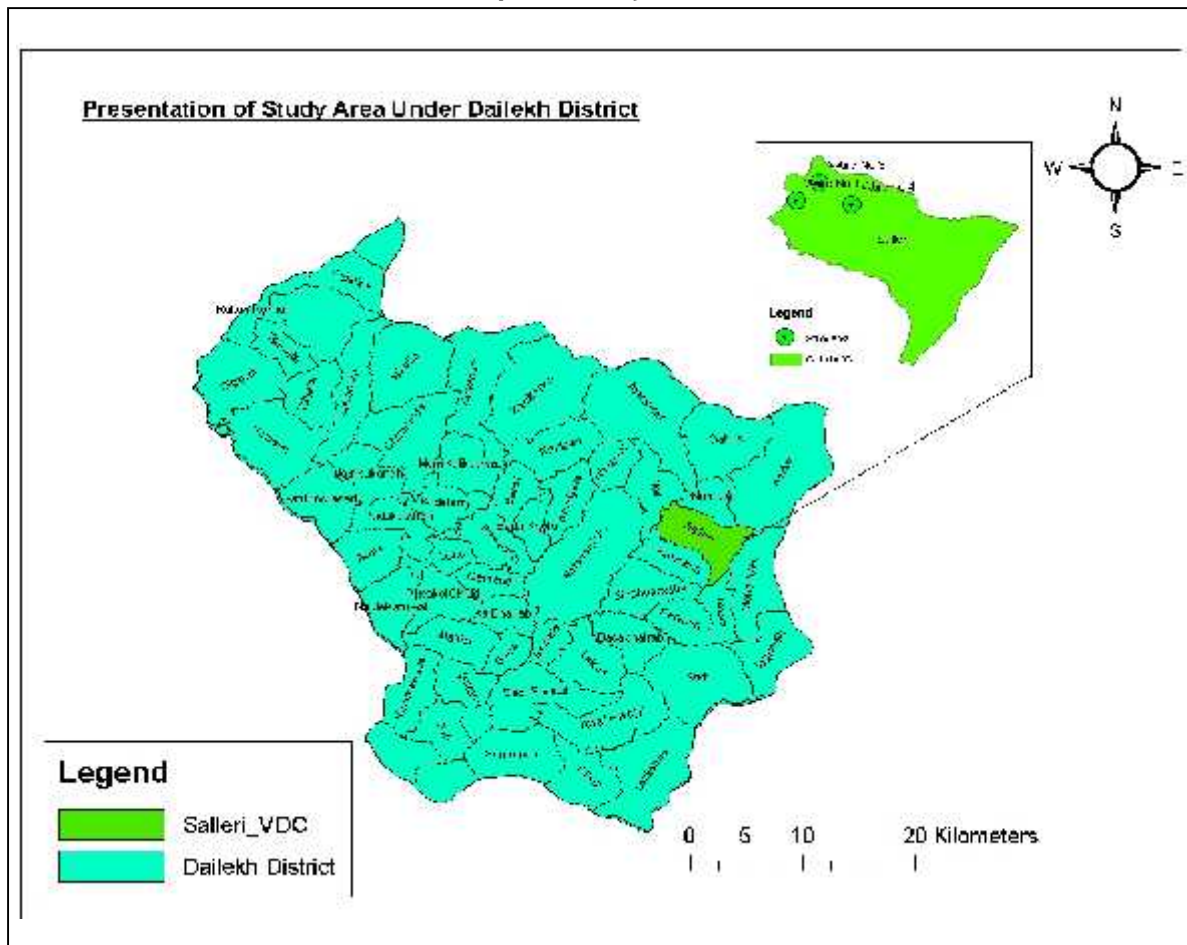
According to District Agriculture Development Office Annual Report - 2067/068, the main crops of this district is Paddy, Wheat, Maize, Millet, Potato and fresh vegetable production. Regarding agriculture production in Dailekh District, the total annual food production is 51914 mt. whereas annual food necessity is 54404 mt. Among this the deficiency of the food at district level is 3390 mt. in an annual basis. The local production is not sufficient for the annual consumption. Whereas the productive land is 43121 hector (28.74% of total land).

4.2. Brief Description of Study Site:

4.2.1. Geographical Background

The proposed Salleri VDC for the research study is one of the remote and under developed VDC among 55 VDCs in Dailekh district that is about 20 km far from the district headquarters at northern part. This VDC is surrounded by Kalika and Meheltoli VDC in the east, Toli in the west, Naumula in the north and Chauratha VDCs in the south. The geographical location of this VDC is slope and most of the settlements are scattered.

Figure No. 4.1
Map of Study Area



According to the Village Development Profile -2067 of Salleri VDC, the total area of this VDC is 2493.54 hector. Whereas 1038.24 ha. is agriculture land, 85.05 ha. is shurbland, 1237.32 ha. is forest land and 132.93 ha. is grass land. The major natural resources in the VDC are land, forest, and water among them land is the major one. According to the VDC record, more than 85 percent of the population is engaged in subsistence agriculture and livestock rising. The rest 15 percent of the population is engaged either in government jobs, school teachers, overseas jobs, business and study. Since land is the major resource they exploit, most of it is used as either *khet* or *bari* or public land. Food grains like paddy, wheat and maize are cultivated in the *khet* whereas maize, mustard, vegetable and beans are cultivated in the *bari* as major crops. Most of the public land is either used for grazing or community forest from which the community people get fodder, firewood, grass etc.

Forest can be categorized as private and public forest. Some of the rich people in the community own their private forest land whereas majority of the people depend on the public forest that is managed by the community people as community forest. Sub-tropical vegetation is prevalent in the forest in the VDC. In Salleri VDC, almost all households have access on involvement in food security project supported by WFP and implemented by different local and national organization before four years due to the vulnerability caused by ongoing conflict and natural disaster. The production status of this VDC is low due to the lack of improved seed and technology support, low production, affected by seasonal disaster, fertile soil erosion, land slide as well as conflict. Most of the households were displaced during the conflict period and after a long time they were replaced with the help of different humanitarian organization.

There are altogether eight schools within the VDC among them six are primary schools, one proposed lower secondary school and one secondary school. Off season road network is linked with the VDC where as solar system has been applied by each household of the study area. There is only one health post in the VDC from where people get primary health care services.

4.2.2. Ethnic Composition and Populations

The study areas Ward no. 1, 3 and 4 are lies in Salleri VDC of Dailekh District. The total household is 252 and the population is male member 772 and female 805. In total 1577 populations is existing in the VDC (HHs survey report - Winrock International 2068). In the study area the people have mixed casts and religious group, as they are situated for a long generation. The majority of the Janajati and Hindu religious were found in this study area. For the consistency of the data, VDC profile and the household survey report were used as a secondary resource for this study. The distribution of the household composition, number and percentage of caste wise distribution and religious distribution is presented in the table and figure below.

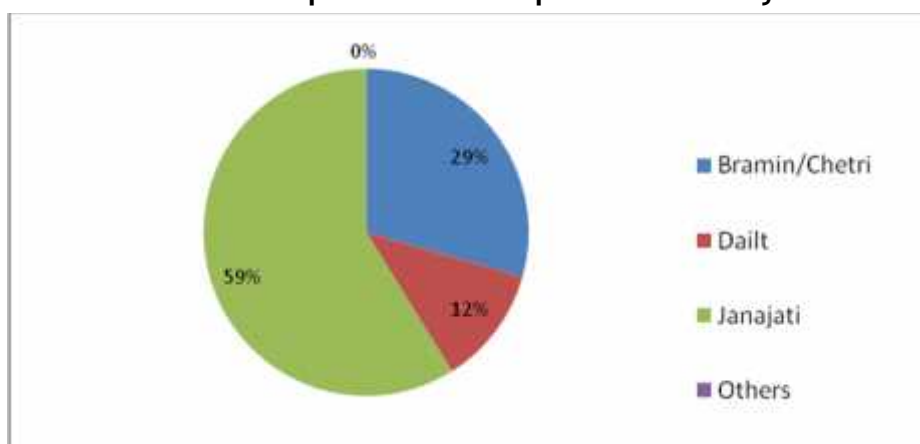
Table no. 4.1
Caste wise number and percentage of sample HHs in study area

S.No	Castes	No. and % of Respondents		Rem.
		No. of HHs	Percentage	
1	Bramin/Chetri	15	29	
2	Dailt	6	12	
3	Janajati	30	59	
4	Others	0	0	
Grand Total		51	100	

Source: Field Survey - 2012

Figure No. 4.2

Caste wise composition of sample HHs in study area



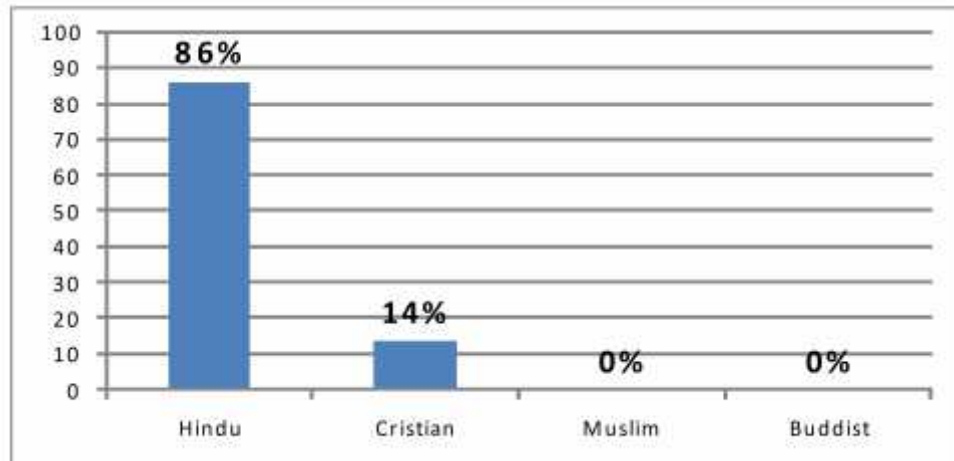
Above table and graph shows that this settlement is made up of different caste and ethnic groups of people who were staying with kind cooperation and relation in this study area for better opportunities and facilities. Among total sample HHs majority of the janajati 59% was found as well as 29% bramin/chettri and 12% dalit was in this study area.

Table No. 4.2
Religion wise number and percentage of sample HHs in study area

S.No	Religion	Respondents		Rem.
		No. of HHs	Percentage	
1	Hindu	44	86	
2	Christian	7	14	
3	Muslim	0	0	
4	Buddhist	0	0	
Total		51	100	

Source: Field Survey - 2012

Figure No. 4.3
Religion wise composition of sample HHs in study area



The above table and graphs shows that only two types of religious people are staying in this study area. Majority of people of this settlement are Hindu (86%) followed by Christian (14%).

4.2.3. Food Sufficiency

Food deficit is the serious problem of the hilly region of Nepal. Major food grains such as paddy, maize, wheat and millet are grown in the study area. Many cash crops like ginger, potato, milk and vegetable are production in the area. Before intervention farmers were applied traditional method of cultivation. There is no use of modern agriculture equipment. Most of the land is terrace type. Very few household are in the position of food surplus and they sold their food sold their food grain to others. Especially the households from Dalit and Janajati community from this study area are thriving in hunger. Thus the study area is facing the problem of food deficit.

After the project intervention, most of the household's food availability is changed compared with before the days. 43% Households were shifted for 3-6 months stage from upto 3 months, 23% households were shifted for 6-9 months food security stage. The present scenario of food security situation shows and suggests for the regular application of improved agriculture technology, application of improved seeds and appropriate cash crop having quick return. The situation also suggests for the modernization and diversification of crops. Some of the reflections were presented in the case studies.

4.3. Brief Introduction of World Food Program (WFP)

World Food Program is an agency of United Nations which had started to work in Nepal before 40 years in of Nepal. WFP maintains a deep field presence with activities in 32 districts in Nepal Its ultimate goal in Nepal is to break the cycle of poverty and hunger. The main focus of this organization is to:

-) Prevent acute hunger and meet emergency food and nutrition needs,
-) Empower hundreds of thousands of families through food- and cash-for-work to build assets that will improve long-term food security,
-) Support the government and partners to develop and implement effective food security and nutrition strategies.

To fulfill the above mentioned objectives, WFP had launched the Assistance for Vulnerable Populations Affected by Conflict, High Food Prices and Natural Disasters, Food Assistance to Refugees from Bhutan, Country Program (Vita Mishran for children, School Feeding/Girls Incentive Program, Maternal and Child Health Care) before starting period.

Most of the populations who are affected by conflict are recovering from three consecutive years of severe drought. Loss of livelihoods and food insecurity has been further exacerbated by the extended conflict. WFP had designed food assistance program (PRRO) an implemented at highly food defecated district through the partnership with national level and district level NGOs. Under the PRRO, WFP will provide emergency food assistance to conflict-affected people, in order to safeguard their lives and livelihoods and contribute to peace during the immediate post-conflict period in Nepal. Special emphasis will be placed on targeting marginalized and vulnerable groups including women, children, ethnic minorities and indigenous populations.

Short-term interventions are made through food and cash. Similarly, in medium and long-term strategies, WFP has collaborated with the government and focus on comprehensive plans to address the key issues such as agricultural production, trade, and marketing, economic development, safety nets and nutrition.

4.4. Brief Introduction of Food Security (PRRO) Project

4.4.1 Introduction

WFP had started Food Security Project - Protracted relief and recovery operations (PRRO) in the Mid-West hills and mountains in 2008 to provide food (from 2009, also cash) assistance to the most food insecure people who are suffering from the shocks of drought, high food prices and continued political instability. PRRO project is implementing food/cash for-asset schemes to create productive assets and to restore and rebuild livelihoods. Project had support through emergency operation addresses immediate food needs of Nepal's poor while enabling communities to create economic opportunities and productive assets to reduce chronic hunger and poverty.

Targeted people receive food and cash assistance in exchange for work to create vital assets like rural agriculture roads, trails, irrigations systems and other agriculture production creating activities that will contribute to longer-term food security. PRRO aims to create community level infrastructure like irrigation schemes, plantation work, micro- hydro, and agro production related community facilities in study area. Every households who evolved on program activity they receive about 2 kg. Rice, 250 grams Pulse and 90.00 Rs. cash wages as a daily basis in exchange their labour. Project had defined 80 man day's work schedule for every phase as per the community defined demand based activity.

4.4.2. Main Objectives of Food Security (PRRO) Project:

The PRRO had following objectives;

1. **Short term** - To protect highly food defecated community through food and cash support.
2. **Long Term** - Increase income and production through agriculture assets, development and training for sustainable food security.

4.4.3. Target group

The following people of the program area are defined as the target group of this program:

-) Every household of program VDCs.
-) Especially focused to the dalit, ethnic and female group and vulnerable.

4.4.4. Program Implementation Procedure

Food Security (PRRO) project is a humanitarian, community based and demand driven program. It has different activities to achieve its target of enhancing the target group's welfare. Implementation procedures of those activities under this project are as follows:

-) Food defecated VDC Survey/benchmark and recommended with the reference of Phase Classification guidelines.
-) District level and VDC level orientation program conducted
-) User committees/group formed
-) Household and project activities selection through PRA tools.
-) Training, infrastructure development, micro-credit, organization development such activities were implemented as per community's demand
-) Resource food and cash has been providing to community.
-) Regular monitoring and evaluation of the project activities through Donor, partner and other stakeholders.
-) Review and reflection meeting with community/district level stakeholders.
-) Similarly, those strategies had adopted in the past and it seems that will be continued.

4.4.5. Food Security Phase Classification

WFP had followed Food security monitoring system for the purpose of upcoming food assistance at the vulnerable areas. As part of Food Security Monitoring and Analysis System, WFP Nepal prepares food security phase classification maps on a bi-monthly basis covering 37 of the poorest and most conflict affected districts of Nepal. The food security phase classification is based on the Integrated Phase Classification (IPC) method currently pioneered by FAO and WFP in collaboration with international NGOs. However, it has been adopted to fulfill the monitoring and targeting needs of WFP Nepal which require data at the sub-district level for which secondary data are not available. The classification of the food security status is based upon a set of reference characteristics. A description of these characteristics and the alert level definitions are provided in table no. 4.3 Classifications are made by WFP field

monitors who have been trained to ensure consistency in data recording. Verification is done through consultation with district government officials, local and international NGOs (DFSN member) and triangulation with other data sources. From the series of food security phase classification maps it can be derived that the most critical area with regard to food insecurity and easier to recommend for food assistance.

Table No. 4.3

WFP Food Security Phase Classification - Reference characteristics

S.No	Phase classification	Alert Level	Definitions and Reference Characteristics
1.	Food Secure	General Food Availability Food Access Nutrition and Health Hazards Civil Security Coping	<ul style="list-style-type: none"> • There are no indications of global food security problems. Poverty levels are low/moderate. • Crop situation is favourable/normal. • There has been sufficient rainfall. • There are sufficient food commodities in the markets. • Households have sufficient food stocks to last until the next harvest. • Markets are functioning and are accessible. • Prices of main staples are stable. • The employment situation is normal. • No excessive in or out migration patterns. • Incidence of wasting is very low. • No major diarrhea outbreaks / or epidemics. • No natural disasters. • General peaceful situation - no enduring bandhs / roadblocks. • No unsustainable coping strategies employed by households.
2.	Seasonally food insecure (Chronic)	General Food Availability Food Access Nutrition and Health Hazards Civil Security Coping	<ul style="list-style-type: none"> • The area is experiencing seasonal food insecurity during the normal lean periods. Poverty levels are high. • Crop harvests are low to normal. However, current crop is not sufficient to feed the population until next harvest. • Rainfall has been intermittent but acceptable. • The markets are functioning and accessible but are less well stocked. • Households have insufficient food stocks to last until next harvest, but this is generally considered as normal. • Prices of main staples are higher than normal. • There are limited employment opportunities during this time of the year. • Out-migration is increasing. • Incidence of wasting is low. • Indication of diarrhea outbreaks / or epidemics. • Occurrence of natural disaster with resulting crop, stock and asset losses. • General peaceful situation. Bandhs and roadblocks may cause additional hardship. • Indications of intensified HH coping behaviour (asset selling, borrowing, migration etc)

3.	Warning of deteriorating food insecurity	<p>General</p> <p>Food Availability</p> <p>Food Access</p> <p>Nutrition and Health</p> <p>Hazards</p> <p>Civil Security</p> <p>Coping</p>	<ul style="list-style-type: none"> • The food security situation is deteriorating in the area; food shortages are much more than acceptable/normal for the time of the year. Poverty levels are high. • Crop harvests are low. More than 50% of the crop is lost. • Rainfall has been insufficient/late/non-existent for consecutive years. • Markets are non-existent due to no or limited supply. • Households have depleted or very low food stocks. • Prices of main staples are increasing rapidly and are unstable. • There are very limited employment opportunities during this time of the year. • Levels of out-migration are high. • Incidence of wasting is moderate to high. • Evidence of malnutrition in women and children is easily observable. • Indication of severe diarrhea outbreaks / or epidemics. • Occurrence of large impact natural disaster with resulting crop, stock and asset losses. • Limited conflict situation with increasing civil security incidences. • HHs adopt irreversible coping behaviour (productive asset selling -tools, seeds, land-, large amounts of borrowing, etc).
4.	Acute food and livelihood crisis	<p>General</p> <p>Food Availability</p> <p>Food Access</p> <p>Nutrition and Health</p> <p>Hazards</p> <p>Civil Security</p> <p>Coping</p>	<ul style="list-style-type: none"> • There's an acute food crisis in the area. Extreme food shortages occur. Poverty levels are very high. • Crop harvests are very low or have been lost. More than 80-100% of the crop is lost. • Rainfall has been insufficient/late/non-existent for several consecutive years. • Markets are non-existent due to no food supply. • Households have depleted their food stocks. • Prices of main staples are very high and unaffordable for a large portion of the population. • No employment opportunities. • People are out-migrating due to food scarcity. • Incidence of wasting is high. Underweight levels of children are above 75%. • Evidence of malnutrition in women and children is widespread. • Occurrence of severe diarrhea or epidemic outbreaks. • Occurrence of large scale impact natural disaster with resulting crop, stock and asset losses. • Extended conflict situation - no agricultural activities possible. • HH adopt crisis coping strategies (productive asset selling - tools, seeds, land-, large amounts of borrowing, etc).

4.4.6. Partner Organizations

WFP has launched the projects with partnership International and national level organization for the implementation of the Food Security (PRRO) project from starting to this study period. The program implementing partners are follows;

1. Support Activities for Poor Producers of Nepal (SAPPROS Nepal) National Level NGO (Past partner of WFP).
2. Winrock International Nepal Office- INGO working at Nepal for community people (Former partner of WFP).
3. Manohari Development Institute (MDI) Nepal - National Level NGO (Present Partner of WFP)

4.4.7. Project Activities

To overcome the food insecurity, project had intervention focus on comprehensive plans to address the key issues such as agricultural production increment related activities like as; infrastructure development, improved agriculture technology support, improved seeds support, capacity building training. Beside this project had support food and cash for quick response. The nature of infrastructure development activities implemented to increase production and income are below;

-) Construction of Agriculture Rural Road /Foot Trail.
-) Construction of Irrigation cannel for irrigation facility.
-) Construction of plastic pond for irrigation facility.
-) Construction of soil cements construction for irrigation facility.
-) Construction of improved cooking stove (ICS).
-) Construction of improved compost pit (ICP) for compost making.
-) Installation of community solar.
-) Construction of poly house for off season vegetable farming.
-) Terrace Improvement
-) Construction of Wooden Bridge.
-) Construction of drinking water supply (DWS) for safe drinking water facility.
-) Construction of improved water mill (IWM)
-) River Bank Protection
-) Construction of Multi use water system (MUS) for irrigation and drinking facility.
-) Plantation (Fruits, Grass,)

Most of the activities were selected agriculture production increment related activities under food security project. These activities were specially constructed at community level as per the demand of the community people. Beside involvement on these activity beneficiaries had provision to receive 2 kg rice, 250 grams pulse and 90.00 NRs as daily wages. On every phase project had designed 80 mayday's work schedule. During whole time every household receive 160 Kg. rice, 20 Kg. pulse and 7,200.00 NRs. in total at every phases. Logistics had distributed on the installment focusing hunger period. Cash has been distributed at local market (Naumula) through branch less sajilo banking Smart Card in the present days collaborating with Siddhartha Bank.

According to the received data and information from WFP district representative and from community people that Food Security (PRRO) project was launched before 4 years on phase wise basis for 6 to 9 months in this community. Almost households were having opportunities to regular involvement on project activities. Food stuff and cash support is very supportive and highly useful during hunger period for the community people who are having low land and low food availability status from their own annual production. The most hunger period for this study area is **February/March** and **July/August**. Project had accomplished food and cash distribution plan accordingly targeting to hunger months. These four months are distinct peak period of food crisis occur every year for the vulnerable community.

4.4.8. Brief Information about Other Organization

During the study period researcher had found that some social service oriented partners organizations making seeds/improved technology available at the plantation season to uplift the food security status of study area. These partner organizations were implementing their activities with kind collaboration among existing partners. These organizations which were mobilized to improve the food security status of the community were as follows;

Table no. 4.4

Existing organization working at study area for food security

S.No	Name of organization	Supporting core areas	Supported Technology	Rem.
1	SAC Nepal	Food Security	Training, material, seeds	
2	DDC-WUPAP	Income Generation	Training, material, seeds	
3	HRDC-SSMP	Food Security	Training, material, seeds	
4	SOSEC - PAF	Income Generation	Training and seeds	
5	DADO	Food Security	Technical, material, seeds support	

CHAPTER - V

DATA ANALYSIS AND PRESENTATION

In this chapter, available information from secondary data as well as primary data is included. The information was collected in the time of field survey. The information on respondent's household, food availability, major intervention, effectiveness, main prospects and challenges of the project were analyzed in this chapter.

5.1. Socio-Economic Characteristics of Sample Households

5.1.1. Age wise population composition of sample HHs

The age composition is the basic components of the demography. The analysis of the age composition of the respondents is one of the essential parts of any research work. So, it plays an important role in the population analysis. Similarly, other population parameters such as occupation, education are also influenced by age composition. It also represents the family structure of the VDC. In this study total number of population of sampled households is found 358 persons. The following table shows the total number and percentage of household population of study area which was categorized into different age groups.

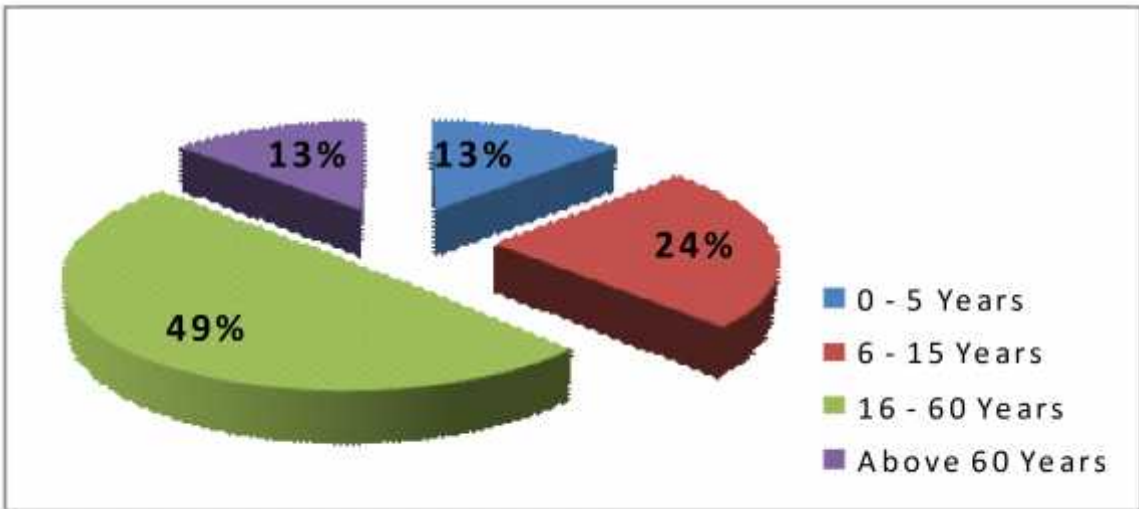
Table No. 5.1
Age wise composition of sample HHs population

S.No	Age Group	Population		Remarks
		No. of population	Percentage	
1	0 - 5 Years	47	13	
2	6 - 15 Years	87	24	
3	16 - 60 Years	177	49	
4	Above 60 Years	47	13	
Total		358	100	

Source: Field Survey - 2012

$$\begin{aligned}
 \text{Average Family size} &= \frac{\text{Total number of people living in household}}{\text{Total sampled households}} \\
 &= \frac{358}{51} \\
 &= 7 \text{ Persons (Average Family Size)}
 \end{aligned}$$

Figure No. 5.1
Age wise composition of sampled HHs population



The economically active population of the age 16-60 years for male and female is high which is clearly shown in table no. 5.1. In this table out of the total respondents HHs population, 13% populations of respondents are 0-5 years, almost are under child groups. 24% populations of respondents are 6-15 years, most of this group are school children, 49% of populations of respond are 16-60 years, most of this groups are economically active and 13% populations of respond are above 60 years, most of them were mobilized as a household's and children's care taker

5.1.2 Genderwise Composition of Sampled HHs Population

The sex composition is another basic component of the demography. The analysis of the sex composition of the respondents is one of the essential parts of any research work. The following table shows the gender wise representation of the total household respondent's in study area.

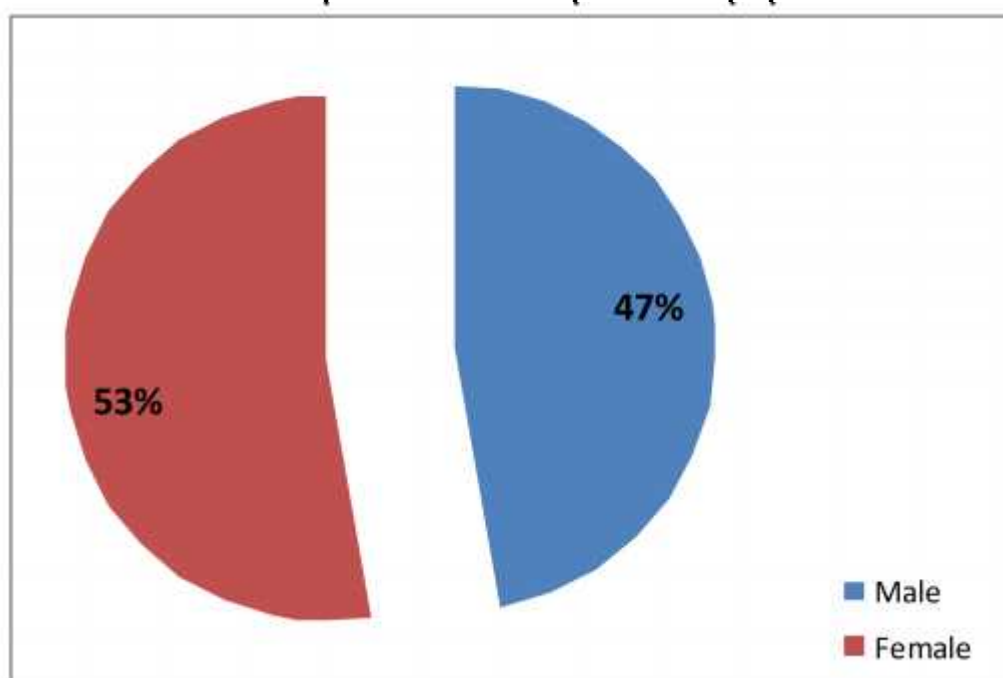
Table No. 5.2
Genderwise composition of sampled HHs population

S.No	Gender	Total Number		Remarks
		No. of population	Percentage	
1	Male	169	47	
2	Female	189	53	
Total		358	100	

Source: Field Survey - 2012

Figure No. 5.2

Genderwise composition of sampled HHs population



The above table shows that out of the total population female population is greater than male population. Out of the total population, 47 percent population is male and 53 percent population is female in the study area.

5.1.3. Marital Status of the Sample HHs Population

The marital composition is another basic component of the demography. The analysis of the marital composition of the respondents is one of the essential parts of any research work. The following table shows the marital status of the total household population in the study area.

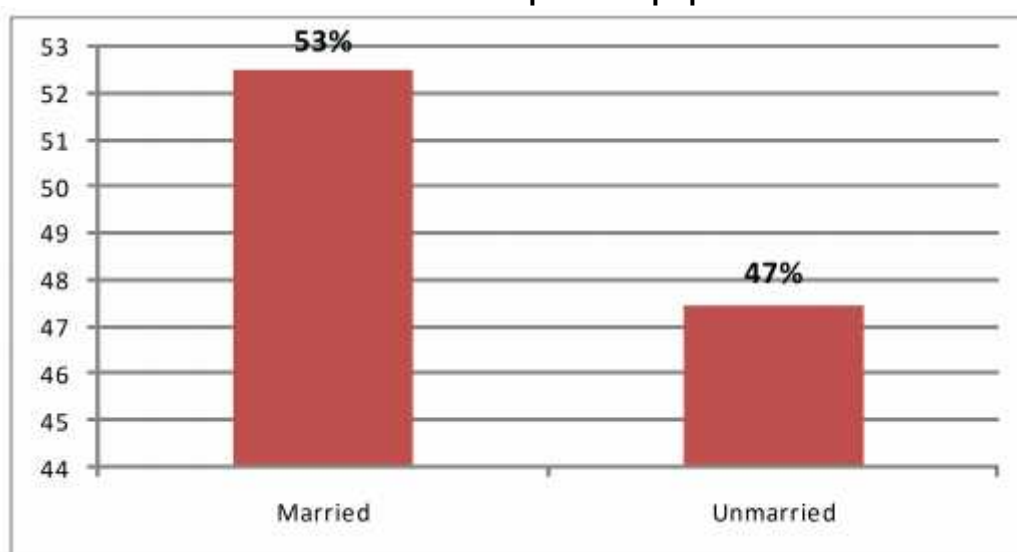
Table No. 5.3
Marital status of the sample HHs populations

S.No	Marital Status	Total Number		Remarks
		No. of population	Percentage	
1	Married	188	53	
2	Unmarried	170	47	
Total		358	100	

Source: Field Survey - 2012

Figure No. 5.3

Marital status of the sample HHs populations



The above table shows that out of the total population, 53 percent population were married and 47 percent population were unmarried found in the study area.

5.1.4. Educational Status of the Sample HHs Population

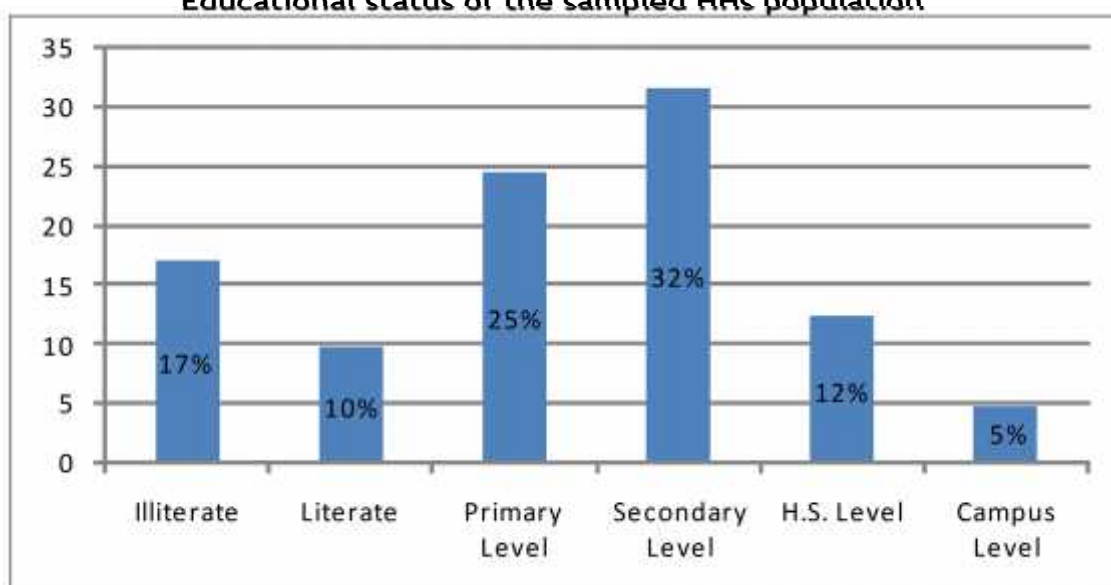
Among the various components education is the key indicator of the human development. It plays an important role in the efforts of any endeavor to uplift a society from repression education is a principal mechanism of fulfilling the minimum learning needs of the people needed for effective participation in the economics, social, political and other activities. Generally, education is a backbone of nation and plays an important role in helping earn livelihood of people. Educational status of the people of household population is shown in the table below.

Table No. 5.4
Educational status of the sampled HHs population

S.No	Level of Qualification	Population		Remarks
		No. of population	Percentage	
1	Illiterate	61	17	
2	Literate	35	10	
3	Primary Level	88	25	
4	Secondary Level	113	32	
5	H.S. Level	44	12	
6	Campus Level	17	5	
Total		358	100	

Source: Field Survey - 2012

Figure No. 5.4
Educational status of the sampled HHs population



Above table and figure no. 5.4 shows the educational status of sample HHs population of Salleri VDC ward no. 1, 3 and 4. Most of the people are literate but a large number of people (17%) are still illiterate. Higher level educational status of community people is poor than medium level. This study area does not have higher level education facilities but they have got the educational facilities from outside this settlement. Out of total population only 5% were having campus level education, 12% having Higher Secondary level, the highest percentage (32%) of education is from secondary level, lower secondary level's is 25%, literate level is 10% and remaining 17% is illiterate. It shows that still either formal or non-formal educational classes need to be conducted to reduce the illiteracy level from the community. It is also possible to conduct reflect classes which run as per the voice and the choice of the community people.

5.1.5. Occupational Status of total Population of Study Area

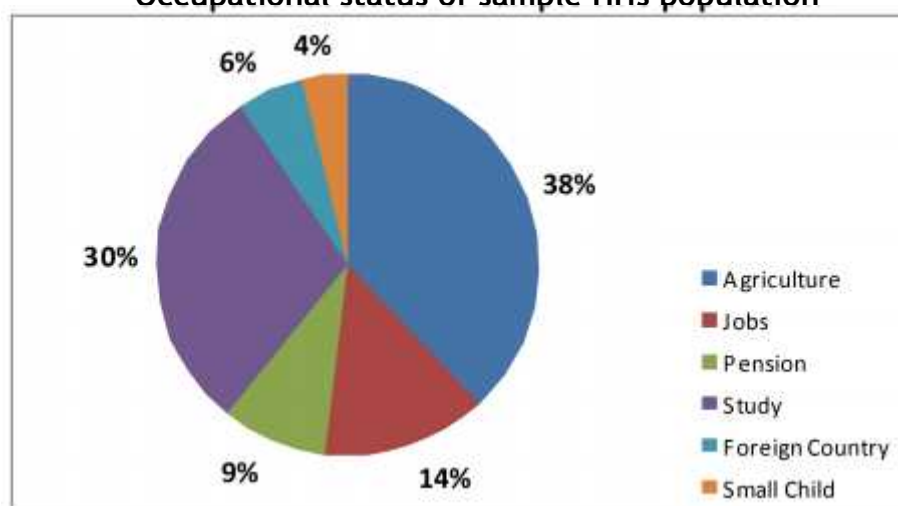
Occupation is one of the important indicators of the economic status of the people. It also determined the household's wealth, well-being and social stigma in the society and plays a vital role of food security status. But in the study area, the major occupation of community people is agriculture. Some of them low number of people having opportunities to hold another types of occupation. The following table shows the occupational status of sample household population in study area.

Table No. 5.5
Occupational status of sample HHs population

S.No	Types of occupation	Total Population		Rem.
		No. of population	Percentage	
1	Agriculture	136	38	
2	Jobs	50	14	
3	Pension	32	9	
4	Study	106	30	
5	Foreign Country	20	6	
6	Small Child	14	4	
Total		358	100	

Source: Field Survey - 2012

Figure No. 5.5
Occupational status of sample HHs population



The above table and figure shows that out of total population, 38% population are involved on agriculture, 14% are involved on jobs inside the country, 9% having pension facility, 30% were from students, 6% were from overseas jobs and remaining 4% were from children. This data shows

that the highest population is having agriculture and second is having study. This data shows that it is necessary to create jobs opportunity at local level where community people can involve easily. There is need to establish small scale industries, giving them knowledge, awareness and education, which can be way if income generation activities at local level for the people.

5.1.6 Food Availability Pattern before the Project Intervention

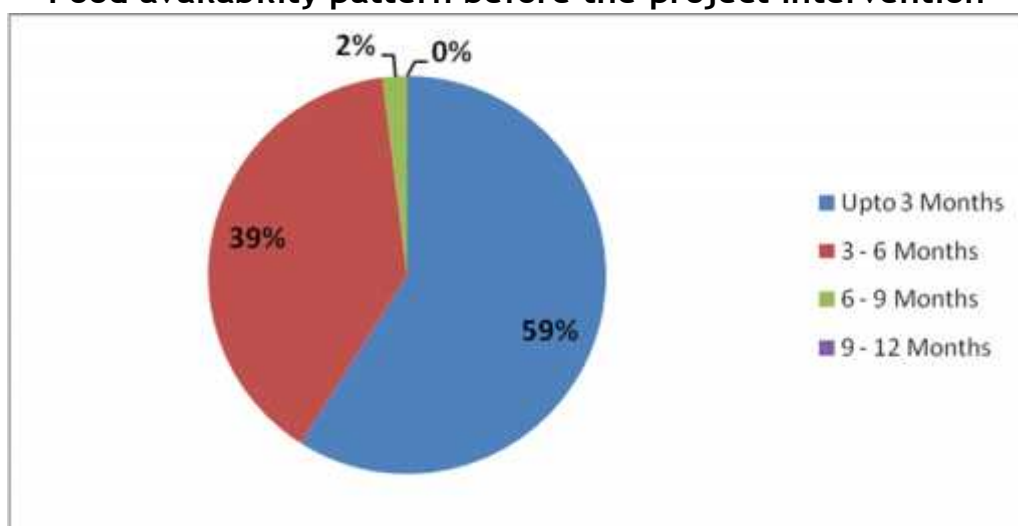
Due to the low productivity land/crops, unavailability of improved high yielding seeds, rare availability, poor utilization and unmanaged use of fertilizers, lack of improved agriculture technology and technical support people from study area had facing the problem of food deficiency form the beginning to program implementing period. Researcher had tried to explore the pattern of food availability before the project period. This table shows the food availability pattern for the whole year from own production before implementation of the food security project in the study area.

Table No. 5.6
Food availability pattern before the project intervention

S.No	Food Available Months	No. of Respondent HHs		Remarks
		No. of HHs	Percentage	
1	Upto 3 Months	30	59	
2	3 - 6 Months	20	39	
3	6 - 9 Months	1	2	
4	9 - 12 Months	0	0	
Total		51	100	

Sources: Field Survey - 2012

Figure No. 5.6
Food availability pattern before the project intervention



Above table and figure shows that out of total sampled HHs, majority of the household (59%) were having access for upto 3 months, which is very poor scenario from the prospective of food security. Among total household 39% were having access for 3 to 6 months, only 2% HHs were having for 6-9 months and no one household have access for 9 to 12 months food availability for a whole year from their own production. This data shows that majority of the households were under vulnerability. Community people were needs additional support from the respected stakeholders.

It clearly shows that the agriculture pattern is undeveloped, traditional and less productivity in the study area. According to the above data, study area needs improvement in agriculture sector by giving productive skill development training about new methods and improved technologies of agriculture.

5.1.7. Land Occupying Pattern of Sample HHs of Study Area

Land is the basic asset of people where people set up a house for shelter. According to the respondent of study area, they had covered the low productive land for their agriculture production. The following table shows the land ownership pattern in the study area.

Table No. 5.7

Land occupying pattern for the agriculture production by sample HHs

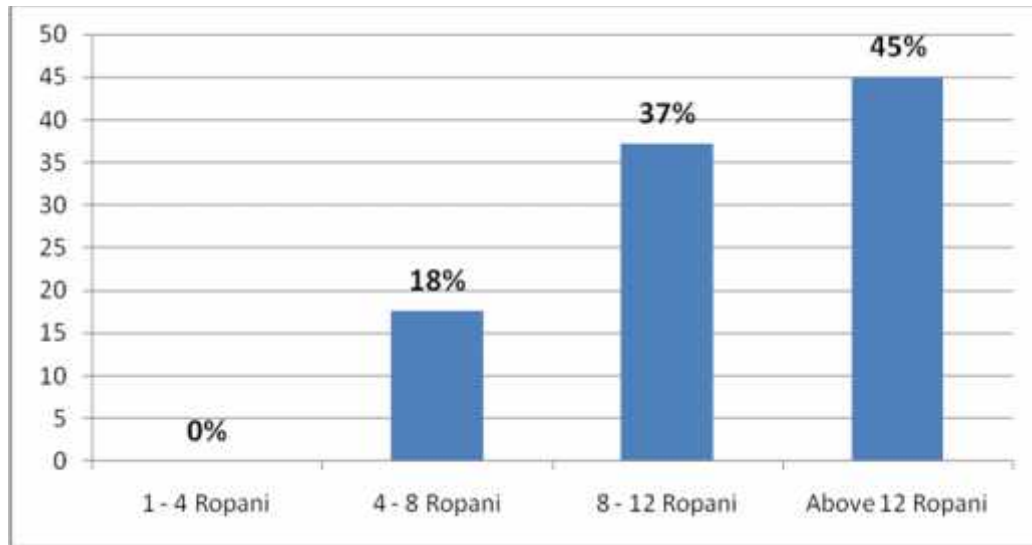
S.No	Land Size	Respondent HHs		Remarks
		No. of HHs	Percentage	
1	1 - 4 Ropani	0	0	
2	4 - 8 Ropani	9	18	
3	8 - 12 Ropani	19	37	
4	Above 12 Ropani	23	45	

Source: Field Survey, 2012.

*** 1 Ropani is @ 12 mana wheat seed covered land.**

Figure No. 5.7

Land occupying pattern for the agriculture production by sample HHs



The above table and figure shows that out of total sampled HHs, majority of the household (45%) were having land access on above 12, which is good scenario from the prospective of food security but lacking of proper agriculture inputs production status is very poor. Which create food deficiency almost time of the annual basis. Among total household 37% were having land access on 8 - 12 ropani, 18% HHs were having 4 - 8 ropani land access and no one household was found land less. Host of the household food availability status determined the land holding pattern and their own production. This data shows that majority of the households were under vulnerability. Community people were needs additional support from the respected stakeholders.

5.1.8 Common Copping Strategies of Sample HHs

This study carried out by stated that the common coping strategies has adopted by households in case of single strategies. To know the coping strategy of the respondent researcher has designed the following options and visit at the study area. After the study, majority of the respondents household has handle multiple options for the coping for their household. They are handling multiple options because single option is not sufficient for the coping of the households. They are facing low production from their own land which is not sufficient for

their whole annual period. Researcher has scheduled the following coping options for the collection of data;

- | | |
|----------------------------------|---------------------------------|
| 1. Collection of Wild Food/NTFPs | 2. Loan for Food |
| 3. Casual Labour | 4. Sale of Agriculture Products |
| 5. Use of Saving | 6. Service within the Country |
| 7. Sale of Livestock | 8. Temporary migration to India |
| 9. Occupational Work | 10. Business |
| 11. Pension | 12. Foreign Remittance |

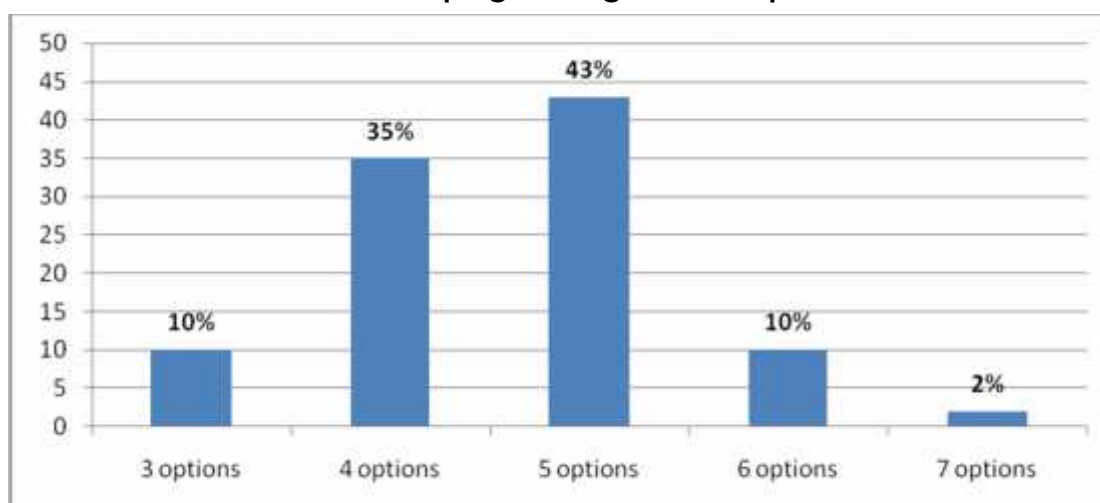
Among the scheduled options, application of the multiple coping strategies by the majority of the sampled household is found from the study is as per the following ranking;

Table No. 5.8
Common coping strategies of sample HHs

S.No	No. of adopted extra coping Strategy	No. of Respondent HHs		Rem.
		No. of HHs	Percentage	
1	3 options	5	10	
2	4 options	18	35	
3	5 options	22	43	
4	6 options	5	10	
5	7 options	1	2	
Total		51	100	

Source: Field Survey - 2012

Figure No. 5.8
Common coping strategies of sample HHs



Above table and figure shows that household members has applied multiple options for their household coping. This study shows that single option is not sufficient for the rural people who are having unproductive land, low production, and low income status and having large scale family size. Out of total population 10% households were applying 3 coping options, 35% were 4 options, 43% were having 5 options, 10% were having 6 options and only 2% were applying 2 options. The level of percentage and the number of options were depending according to the family size and the educational status. Study shows that those household who adopt more option their income and food availability is higher than less options adopting house. Single options household is not found during the study. Single option is also very difficult and painful for the coping to household.

5.2. Major Intervention of the Project

The food security status of study area household or individual is basically determined by their awareness level on agriculture, community assets, technology transfer system and logistic factors. The complexity of the food security problem can be simplified by focusing on three distinct but interrelated dimensions: aggregate food availability, household food access, and individual food utilization. Vulnerability is a forward-looking concept for assessing community and household exposure and sensitivity to future shocks. Ultimately, it was found that the vulnerability of a household or community was depends on its ability to cope with exposure to the risks associated with shocks such as drought, flood, crop blight or infestation, economic fluctuation, low level of knowledge, lacking of proper infrastructure facilities and technologies, and conflict. The study areas people were facing these problems before the project intervention. After the implementation of the project, sectoral intervention was made to enhance the capacity of the food defecated household and also community people. The upgraded ability support to manage these risks determined largely by the characteristics of a household or community, particularly community asset base and the livelihood and food security strategies it pursues. The determinants of applying coping capacity include the levels of a

household's natural, physical, economic, human, social and political assets, the levels of its production, income and consumption, and its ability to diversify its income sources and consumption to mitigate the effects of the risks it may face at any moment. After implementation of the project, applied major interventions through food security project is shown below.

Table No. 5.9
Major Intervention Sector of Food Security (PRRO) Project

S.No	Major Intervening Sector	Sub-Sectors/Activities
1.	Awareness Rising	<ul style="list-style-type: none">) Discussion at monthly meeting.) Group Discussion.) Orientation.) Training) Demonstration.) Cross Visit) Practical Field Exercise.
2.	Community Assets Creation	<ul style="list-style-type: none">) Rural Agriculture Road Construction.) Irrigation Cannel Construction.) Cement/Plastic Pond Construction.) Improved Water Mill Construction.) Wooden Bridge Construction.) River Bank Protection.) Terrace Improvement.) Nursery Installation.) Poly Houses Construction.) Improved Cooking Stove Installation.) Improved Compost Pit Making.) Community Solar Installation.) Plantation.
3.	Technology Transfer	<ul style="list-style-type: none">) Improved Seed Support.) Instrument Support.) Pesticide Support.) Technological Support.) Technical Support
4.	Logistic Support	<ul style="list-style-type: none">) Food (Rice and Pulse) Support.) Cash Support.

The above figure shows that the intervention to uplift the capacity of household and community people was made sector wise. Brief discussion of these sectors is as below.

5.2.1. Awareness Rising

There is an absence of adequate training and key information and fundamental awareness on increase proper food availability at household level. Acknowledging the need to expand the level of awareness and update it food security project had developed and implement agricultural and instructional capacity building activities for the beneficiaries. Through this sector, it also covers analysis of key issues and challenges confronting agriculture as articulated in the community. Development of this sector has involved also a stakeholder consultation, which helps to empower the knowledge and capacity of the community people on agriculture development for food availability at household as well as community level. Basically, this awareness sector focuses on: (i) Discussion at monthly meeting, (ii) Group Discussion, (iii) Orientation on agriculture and production, (iv) Agriculture/capacity development training, (v) Demonstration on agriculture activities, (vi) Internal/external cross visit and (vii) Practical exercise on improved farming system and enhanced their competitiveness. Recognizing that above mentioned activities is essential and effective to provide more comprehensive capacities to improved food security and specific assistance of its stakeholders.

5.2.2. Community Assets Creation

Agriculture production and productivity can be sharply increased by year-round irrigation services through the construction/maintenance of infrastructure and better irrigation management. However, year-round irrigation services before the project intervention was limited and moreover, the existing irrigation systems are becoming available due to the proper project support through community assets creation sector. Through this sector it was aimed that encouraged farmer participation in the construction of public irrigation systems and other agriculture production increment related infrastructure the desired result has been achieved with little impact on the envisaged increase in agricultural productivity and production as well income of the household and community people. Problems also exist regarding the collection of irrigation service fees as most farmers are reluctant to pay irrigation fees because of the

irregularity of the irrigation services. The challenge is to increase the sustainability of the community assets at community level. For this, project had encouraged to develop management plan and rules for the sustainability of the activities. Recently, community had developed and regulates the plan and rules. Under this sector, it was found that above on the figure mentioned activities were implemented for the creation of community assets at study area to increase production, productivity and income of household as well community.

5.2.3. Technology Transfer

Technology support sector is basically focused on the agricultural extension service delivery as per the demand and needs of farmers. It was found that the present level of coverage by the technology support sector is increased agricultural households at the study area. Over the years, from the side of government sector several approaches such as the Integrated Rural Development Projects, Training and Visit System, Block Production Program, Research and Extension have been attempted. Despite their implementation, the lessons learned from these initiatives have not been institutionalized largely due to the proper technical support, human resources and budgetary limitations. While food security project and other line agencies are also actively providing technological extension services, the real need is to address the needs of poor and marginal groups living in the remote areas with the services made inclusive with equal treatment to all. There is also a need for further alignment of agricultural transformation, education and extension services with the demands and priorities of farmers. Basically on this sector, (i) Improved high yielding seed support, (ii) Agricultural instrument support, (iii) Pesticide support, (iv) Technical supports were made through the food security project side. It was found that a good practice for the agriculture production as well as income of household and community.

5.2.4. Logistic Support

Logistic (Food stuff and cash) support is very supportive and highly useful during hunger period for the community people who are having low land and low food availability status from their own annual production. It was found that the

most hunger period for this study area is **February/March** and **July/August**. These four months are distinct peak period of food crisis occur every year for the vulnerable community. To ensuring the short term food availability at this hunger period, project has accomplished logistic support accordingly targeting to hunger months in exchange to the daily labour of household after participation on project activities. Project was designed especially for the rural people who are not having proper access on food and cash. Due to the low production and lacking of extra income opportunity, community people were suffering from available food and cash. Community people has select project activities as per their need. After defining the project activity, each households member having 80 work maydays' working provision and 2 Kg. rice 250 Grams pulse was received as a food stuff and Nrs. 90/- for cash per day after involvement on defined project activities. After involvement on the program activity, per phase total 160 Kg. rice, 20 Kg. Pulse and Rs. 7,200/- was received as a logistic support for 80 working maydays'. It was found that received food stuff has helps to daily food problem and cash helps to handle their other essential household problem. Majority of the population realized that this logistic support is very supportive and useful for the hunger period of the year.

5.3. Effectiveness of the Food Security Project

The effectiveness of the food security project at study areas has been analyzed in terms of intervention and allocation of the services sectors comprising awareness rising, creation of community assets, technology transfer and logistic support. Project has invested on the mentioned sectors to increase production and income of beneficiaries HHs. It was found that changes were happened and the level of awareness is raised, infrastructure facilities were developed at community level, transformation on agriculture technology was undertaken and adopted by the HHs and community people, short term logistic support was made to the community people behind the benefits of daily wages from the project activity which help for the short term food security. The role of improved technology in alleviating food deficiency was found greatest in a community where agriculture is absorbing by majority of population on land resources. Irrigation facility, improved seeds, fertilizers and other inputs and

improved farm machinery were undertaken from modern agricultural technology. It was found that its help to determine the level of agricultural productivity, which in turn affects poverty and food security, particularly in study area where agriculture is applying as a main source of livelihoods by the community people. From the field survey data, key informant response, direct observation and case studies the major effectiveness of the project intervention are follows.

5.3.1. Farmed Crops to Increase their Production and Income

According to the household respondent's, respondent has applied different improved varieties of crops which crops having high yielding performance and support to generate high income. Some of them respondents were farming off seasonal crops and earn additional income. To enhance the production and income of the respondent, other different line agencies provide technical/physical support to the community people. Respondent has adopting traditional seeds and farming system before the program implementation period. After intervention of the program, most of the farmers has changed their farming system and seed selecting pattern for the farming. Supported major crops to increase the production and income of the community people through program are;

1. Paddy - Radha 4, Khumal -4, Bindesory etc.
2. Maize - Deuti, Manakamana, Arun etc.
3. Wheat - Annapurna - 4. WK-1204.
4. Cash Crops - Ginger, Yam etc.
5. Off seasonal fresh vegetable seed - Cauliflower, Cabbage, Cucumber, Radish, Pea, Beans etc.

5.3.2. Seed Using Pattern

Although efforts to improved agriculture through food security project intervention, majority of the respondents and households have access on improved

crops varieties/seed of paddy, maize and wheat distributed by project and existing partner organization. It was found that, household covered by improved

"My land got life, when Food Security Project has supported for cemented irrigation cannel construction, which ensured time for nursery raising of Paddy crop and transplanting seedling. Bothering days to wait uncertain monsoon for transplantation has ended. Vegetables farming practices and trend also have been increased in our community. This helps to uplift our socio-economic status through agriculture production and income".

*Mrs. Sunil Kami - Community Member,
Salleri VDC Ward No-4. Dalit Tole. Dailekh*

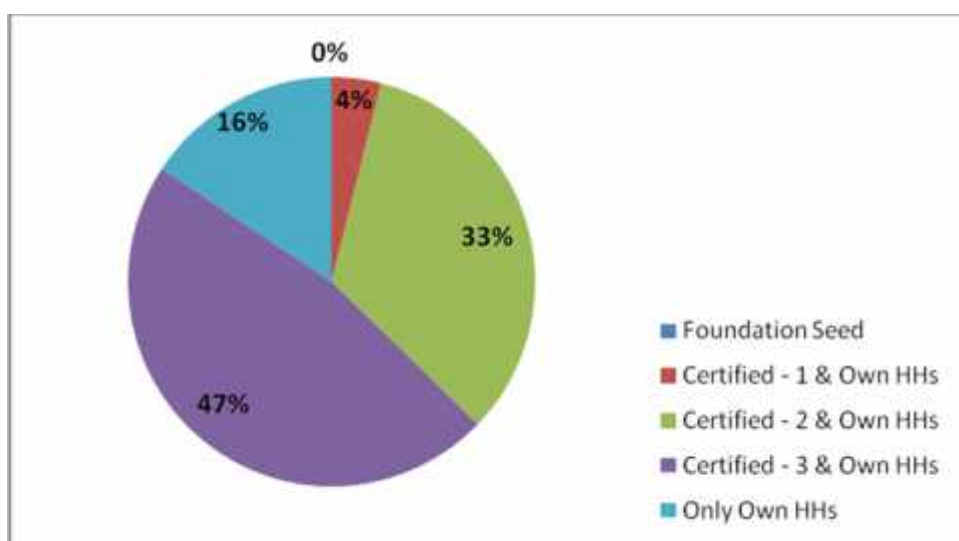
seeds in a year depend only on the amount of improved seed distributed by formal sources, because there is also farmer-to-farmer spread. Thus actual coverage of crop households by improved seeds in a particular year is increasing. However, it is observed that farmers start to replace traditional and low yielding capacities seeds as regularly as they should for optimal results for improved high yielding seeds. For the verification of the seed using pattern, researcher had designed the options for used types of seeds including foundation, certified -1, certified - 2, certified - 3 and own households seed. The following data shows the seed using pattern of the respondents.

Table No. 5.10
Types of seed using pattern by sample HHs

S.No	Options of Seed Used	No of sample HHs		Rem.
		No. of HHs	%	
1	Foundation Seed	0	0	
2	Certified - 1 and Own HHs	2	4	
3	Certified - 2 and Own HHs	17	33	
4	Certified - 3 and Own HHs	24	47	
5	Only Own HHs	8	16	
Total		51	100	

Source : Field Survey - 2012

Figure No. 5.9
Types of seed using pattern by sample HHs



Surveys results summarize in Table no. 5.10 indicate that adoption of improved seeds has increased during the project intervention period compared to before. The reasons are clear that the production capacity of improved seed is higher than traditional seeds. It was found that there is not still access on foundation seed. It is also impossible and not applicable for the community farmers. Foundation seed is specially applied by seed production center or researcher center. So, it can be said that farmer had not access on foundation seed. Certified seed is also a second generation seed. Only 4% households have access on certified -1 and their self stored improved seed. Majority of the household have access on certified -2, certified - 3 and their self stored seeds. Among them 33% households used certified - 2 and self stored improved seed, 47% households used certified - 3 and self stored seed and 16% of them had not access on improved seed. They are using their self produced traditional seeds. This figure shows that it is also necessary to make aware community people about the improved seeds and need to make proper access on improved high yielding seeds. That was found as a main means of food security.

5.3.3. Sources of Seed Used by Sample HHs

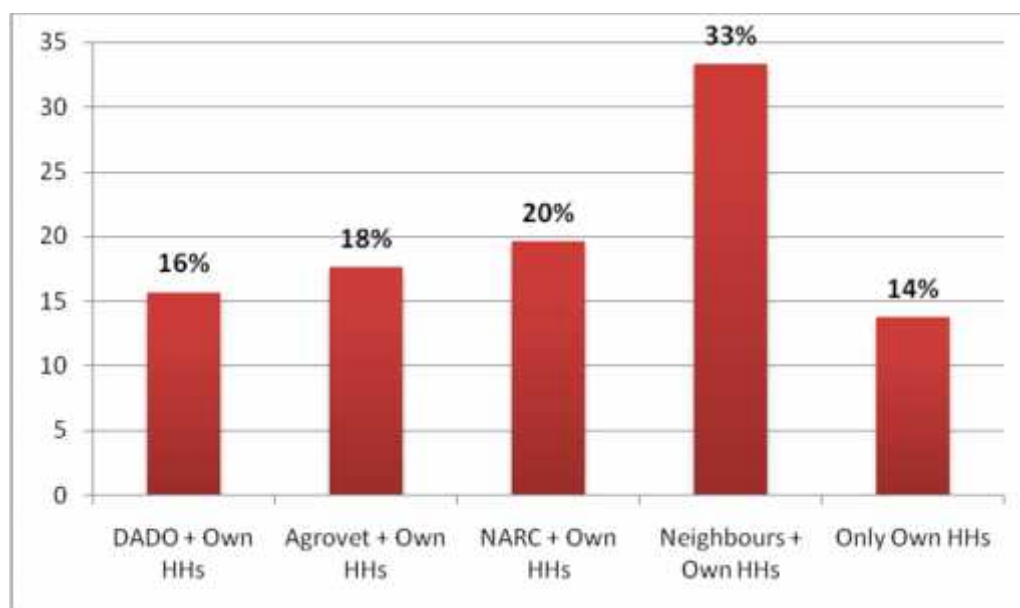
The source of seed is the basic components of the production. The analysis of the used seed sources by the respondents is one of the essential parts of this research work. So, it plays an important role in the analysis of food availability status of household. Similarly, in this study researcher has designed on his household survey form and checklist to find out the seed source information. The following table shows the total number and percentage of household mentioning seed sources.

Table No. 5.11
Sources of seed used by sample households

S.No	Sources of Seeds	No. of sample respondents		Rem.
		No. of HHs	%	
1	DADO + Own HHs	8	16	
2	Agro-vet + Own HHs	9	18	
3	NARC + Own HHs	10	20	
4	Neighbours + Own HHs	17	33	
5	Only Own HHs	7	14	
Total		51	100	

Source: Field Survey - 2012

Figure No 5.10
Sources of seed used by sample HHs



Survey results summarized in Table no. 5.11 indicates that selection of the seed sources during the project intervention period compared to before. It was found that there is no habit of using improved seed and no selection options for responsible source of seed due to the lack of awareness and additional technical support. After the intervention through different sector of this food security project the rate of source selection number is increased. Still farmers were using multiple options. Out of total sample population 16% uses DADO and self stored, 18% used Agro-vet and self stored, 20% used NARC and self stored, 33% used from neighbor and self stored and 14% used own production self stored seeds. This figure shows that it is also necessary to make aware about the sources of seeds and the benefits behind selection of sources.

5.3.4. Production and Income Pattern of Sample HHs

Good quality seeds in sufficient quantities are essential for good harvests. Researcher has found that before project intervention poor farmers in the study area have been using the same seeds for generations. Due to remoteness, unavailability of improved high yielding seeds and lacks of know-how the quality of these seeds. Understanding these problem, food security project had trained to the farmers in new farming techniques, distributing improved high yielding seeds, and seed storage bins. These help farmers to manage and store improved seeds from season to season, enabling them to grow larger crops even in the face

of climate variation. Most of the households select the best seed stock for next year. After gaining knowledge from project intervention about the importance of developing, multiplying, and managing their seed supply they start seeds to plant for the next season. The result of this practice shows the status of the production and income an annual basis of household which has slightly increased. Most of the respondents had farm food and cash crops like as;

"I had no belief that I would earn money. But my assumption has failed "Initially I earned NPR 13,000 from selling cauliflower. Seeds and irrigation support for vegetable farming from the project made me, able to feed my family full stomach with nutrition. I have received food and cash as a benefit from project construction related activities. Also received poly house for off-season fresh vegetable farming with seed trainings and seeds from project". This helps to transform my food availability status from 3 months to 7 months. For the coming days, i will give regularity like this activity.

*Mrs. Bal Kumari Nepali - Community Member
Salleri VDC Ward no - 4, Dalit Tole Dailekh*

Paddy, maize, wheat, millet and barley and off seasons fresh vegetable as a high value crops. As a result, average production and income status in annual basis compared to previous year of the respondents shows the table below;

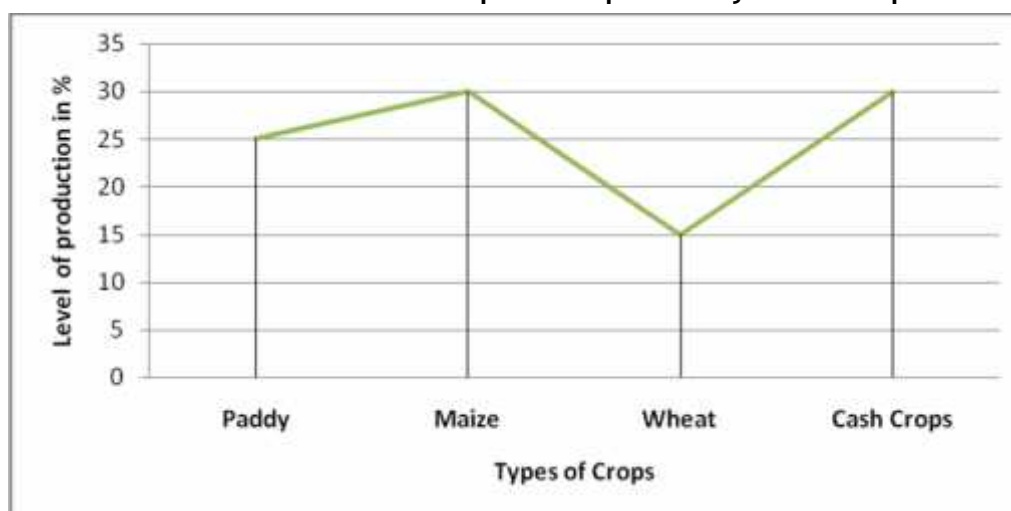
Table No. 5.12
Production increment status compared to previous year of sample HHs

S.No	Main Crops	Production Increment Percentage	Rem.
1	Paddy	25	
2	Maize	30	
3	Wheat	15	
4	Cash Crops	30	

Source: Field Survey - 2012

Figure No. 5.11

Production increment status compared to previous year of sample HHs



Above table and figure shows that the production status compared with previous is increased due to the access on improved seed, technology and irrigation facility. Data from the analysis shows that 25% increment was found in paddy due to the selection of improved high yielding capacities seeds. 30% found in maize, 15% found in wheat and 30% is found in cash crops like; vegetable farming. The increment percentage of wheat is found low then other because the production was affected by the hill storm during the harvesting period.

5.3.5. Annual Income Increment Status of Sample HHs

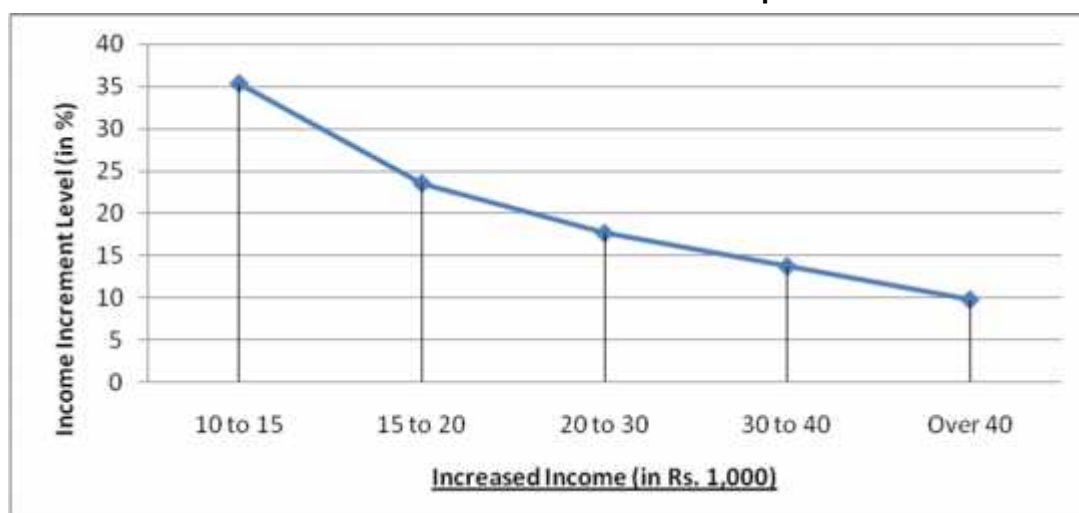
Application of the good quality seeds selection from responsible sources and using improved agriculture technology, the survey data shows that the annual income status was found increased after the intervention of the project as well as production. The status of annual income is summarized in the table below.

Table No. 5.13
Annual income increment status of sample HHs

S.No	Level of Increment (in 1000)	No of respondents		Rem.
		No.	Percentage	
1	10 to 15	18	35	
2	15 to 20	12	24	
3	20 to 30	9	18	
4	30 to 40	7	14	
5	40 Over	5	10	
Total		51	100	

Source: Field Survey -2012

Figure No. 5.12
Annual income increment status of sample HHs



Data shows that the annual income of 35% HHs is increased annually 10-15 thousands, 15-20 thousand increment is found of 24% HHs, 20-30 thousand increment is found of 18% HHs, 30-40 thousand increment is found of 14% HHs and over 40 thousand increment is found of 10% HHs.

For the consistency of this result, the production of food as well as cash crops is found from community and respected Illaka level agriculture service center of government at Naumula and used as a secondary data.

5.3.6. Comparative Analysis of Food Availability (Before and After Project Intervention)

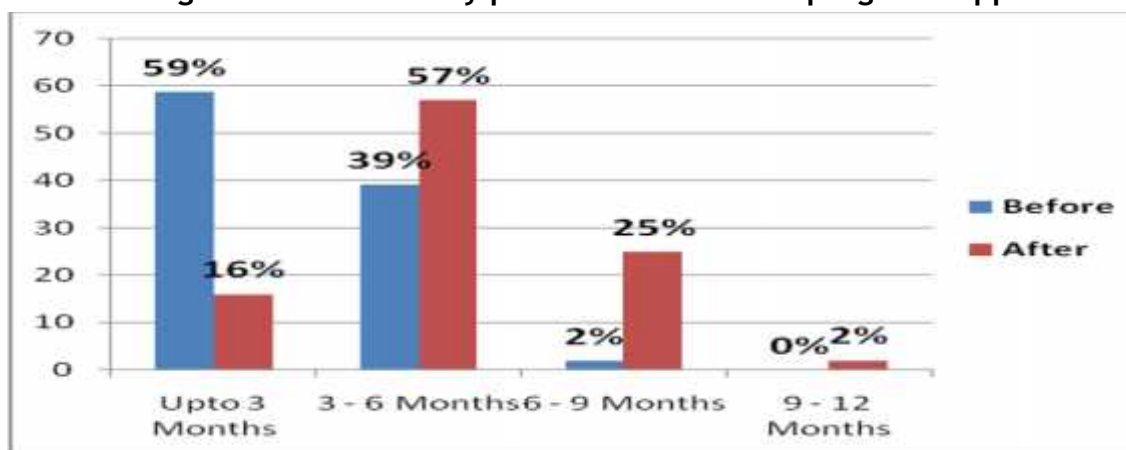
After intervention through the project activities, changes are seen at household food production and income status was found increased due to the raised knowledge in improved farming system and application of the gained knowledge, proper utilisation of community assets, application of the improved technology as well as support of logistic. The status of changing pattern on food availability before and after the project intervention is comparatively analyzed in the table below.

Table No. 5.14
Changed food availability pattern before/after program support

S.No	Available Months	Increment Status (in %)		Remarks
		Before	After	
1	Upto 3 Months	59	16	
2	3 - 6 Months	39	57	
3	6 - 9 Months	2	25	
4	9 - 12 Months	0	2	
Total		100	100	

Source: Field Survey - 2012

Figure No. 5.13
Changed food availability pattern before/after program support



Data from table and the figure shows the level of food availability is comparatively increased than before. 43% HHs from upto 3 months were shift on 3-6 months from this level. The percentage was found decreased from 59 to 16. Same as food availability level of remaining HHs is found changed due to the effective intervention of project.

5.3.7. Reasons Behind this Status

Although efforts to improved agriculture through food security project intervention, majority of the respondents and households have access on awareness, community assets, technology transfer and logistic support. Production and income status of household was found increased form the above data and figure. The reason behind the increment of production and income was found from the household survey data, key informant, and direct observation of study areas which are as follows;

-) Application of the improved varieties of the seeds on farm.
-) Construction of the irrigation cannel, pond/facilities.
-) Timely/properly available of the irrigation facility at farming period.
-) Application of improved farming system nursery, plantation, care taking and harvesting stage.
-) Systematic application of the compost and chemical fertilizer as per the variety/needs of the crop.
-) Selection of the varieties which were less affected by wind and storm.
-) Farming of the high yielding performance varieties which occupy few land and high production.
-) Selection and farming of the early variety seeds for the off seasonal production.
-) Timely/proper consultation and support of the agriculture technical persons for the farming system.
-) Proper care taking.

"After attending trainings on improved farming system through the recommendation of user group, I gained confidence that I can grow vegetables and sustain my family. I called my husband back from India and we have planned to do vegetable farming together. We are now able to earned the income from the vegetable more than that my husband used to bring from remittance. My husband can live with family in own country happily now."

Mrs. Amrita Rana Magar - Community Member
Salleri VDC Ward No - 3, Tallo Nauli Dailekh

5.3.8. Case Studies

Case Study - 1

"Vegetable farming stopped seasonal migrates to India".

36 years old Suntalee B.K. is a smallholder farmer. She is resident of Salleri Village Development Committee ward no. 3 Tallo Nauli, Dailekh district. There are seven members in her family including 2 sons, 2 daughters, mothering law, husband and herself. The main occupation of her family is agriculture and seasonal migration to India. She has 3 ropani (1500 sq meters) of pakho bari (dry land). Only two crops (wheat and maize) were possible to be cultivated in her land. Vegetable production was not possible due to lack of irrigation facility. Therefore, in the past, food was sufficient for less than three months for her family members. Her husband used to go India as a seasonal migrant every year to earn money to buy food for the family. Life was very difficult as it was very hard to manage food, education, and health care for her children while her husband was away from the village.



Suntalee B.K. and the physique of tomato under poly house.

But the situation changed once the food security project was introduced in her community by a partner organization under PRRO supported program on World Food Program since 2008 in her village. When she learned about the project and participate the activities. The project brought a significant transformation in her life. A micro-irrigation scheme (Irrigation Pond) was constructed close to her land at 2010, which encouraged her to grab the opportunity to cultivate vegetables in her land. Her husband agreed upon her request to stay in the village instead of going to India as she would need a helping hand her vegetable cultivation. She attended the learning events of the project such as (Vegetable farming training, project orientation etc). After being trained, She was also selected for a poly house participant and received improved varieties of seeds of vegetable and cereal crop (Tomato, Cauliflower, Cabbage, Cucumber, Pumpkin, Potato and wheat). She had earned Rs. 26,000.00 from tomato cultivated under poly house selling within community and at collection center.



Mother in law of Suntalee is collecting pumpkin for selling.

She worked with high enthusiasm to prepare the land and planted different vegetables and wheat. The harvested was good and her first priority was to feed the family. She carried the remaining vegetables in a basket (Doko) and sold them in the local market, which is situated about 45 minutes walking distance away from her house. In the meantime, her husband looked after the children, household work and the farm. She had sold Cucumber, pumpkin, potato, tomato, cauliflower and cabbage earning Rs. 23,000.00 and fresh vegetables (cauliflower and Cabbage) seedling at Rs. 1,200.00 by July last, 2011. After making a good income, she still has vegetables worth Rs. 3,500.00 in her field. It was a surprising experience for her as she used to receive just 15 pathis (60 Kgs) of wheat from the same pieces of land which is worth around NPR. 2,400.



Seedling for own uses and for

She also cultivate wheat (WK 1204 variety) over 500 sq meters of land and harvested more than double amount of grain 38 pathi (150 Kgs). She is happy and encouraged to continue vegetable farming and also to use improved variety of wheat. Her family has become food secure and she is handling cash for the first time in her life.

She used the income of food (grains) purchases for deficit months and on the education of her children. Food sufficiency for her reached six months this year whereas it was only three months last year. Every meal of her family now has nutritious vegetable dishes. She is planning to extend the vegetable plantation over 1000 sq meters of land. Her husband has no intention to go India for earn money. He realize and say that **"self employment if greater that employment so I never migrate outside for earning money. Always works at my own land using improved varieties which brings change at my household socio-economic status"**.

Case Study - 2

"Seed Production Improved Food Security of Naina's Family".

27 years old Naina Chand is a resident of Salleri Village Development Committee ward no. 4 Thakuri Tole, Dailekh district. She was nominated for a seed production farmer by user committee to produce improved seeds supporting by food security project activities in her community. She has eight members (2 sons, 3 daughters, 1 mother in law, husband and herself) in her family. It was difficult for her family to survive with the amount of crops produced in her own field. The yield was only sufficient for six months. Her parents had a hard time affording the education expenses of five children. So, her husband had to do labour work in the village and sometimes away from village.



Maize -Deuti on the growing stage at Naina's farm - Salleri - 4, Dailekh.



Seed cultivate by Naina Chand - Salleri - 4, Thakuri Tole Dailekh

Her family normally used to grow wheat, maize, paddy and millet as main cereal crops in her land. There was no practice of vegetable farming due to lack of awareness and also due to the absence of market access in her village.

Food security project was implemented with the support from WFP in her village since 2008. She was nominated as a seed production farmer. She received 25 Kg certified - 1 level seed of Wheat (WK-1204 variety) cultivation aiming to increase yield in 2010 and 2011 at farming season. Similarly she received five kg foundation seed of maize (Deuti variety) and 25 kg of foundation seed paddy (Radha - 4) for seed production. She produced about 750 kg maize and sold 530 kg to HRDC (Local NGO working within community and supporting improved seed to community people) for Rs. 18,550.00 (per kg Rs. 35.00) and store 25 kgs to plant coming season (May-2012). The remaining from grading was used for home consumption. The amount of maize she received by this improved variety is about double compared to last year. The local variety production was only 300 kg from same piece of land (2500 sq meters). Similarly, she produced about 280 kg wheat in 2010 and sold 150 kg to other community people for Rs. 9,000.00 (per kg Rs. 60.00) and



Paddy Radha - 4, planted by Naina Chand and its unexpected

Naina Chand say that it is my glory to show you.
Salleri -4 Thakuri Tole, Dailekh



store 40 Kg to plant in 2011. Remaining from grading was used for home consumption. Likewise she produced about 600 kg paddy (Radha- 4) in 2011 and sold 250 kg to the other community people for Rs. 15,000.00 (per kg Rs. 60.00). Remaining was used for home consumption. The total cash income from seed selling of her household was found Rs. 42,550.00 during one annual season of maize, wheat and paddy. This was the first time; she had produced seeds of wheat, maize and paddy. She is encouraged because of the high production and cash income from the selling on a good price than local variety. Now, she is regulating the farming of seed production activities of different varieties of crops.

Other farmers also encouraged toward using the improved variety of maize, wheat and paddy because they know the Naina's success. Naina says confidently, "Food sufficiency had increased by 6 months from the seed production because she could buy more food by selling them and meet 12 months food security to the family and also can manage other essential issues".

Farmers are happy with the quality seeds in the community and also for getting more production with improved varieties that is supporting to increase the food sufficiency from two to six months among each targeted smallholder farmers.

Case Study - 3

"First I Do Then Share Experience To others"

Pooja Thapa 24 years belongs to Janajati community live in Tallo Nauli tole Ward no. 3 Salleri VDC Dailekh district. She has nine members in the family one father in law, one mother in law son, one brother in law, three sisters in law, her one sons, husband and herself. Her husband works with Nepal army at outside the district and available rarely at home due to his jobs nature. While her husband was working at Palpa she had married with him and migrates at her husband household in 2010. She has only 8 ropani up land among this only 4 ropani is good for farming and remaining is drought land. Her household income and products are sufficiently hardly 3 months for family. Her family members had no habit to produce and eat vegetable before her entrance. They were highly vulnerable for food security and nutrition in the community.



Unexpected production of tomato under poly house by Pooja Thapa

The food security project under PRRO has been implemented with the support of WFP. She joined on the program's provided orientation and training support activities. She participated actively on various sessions in orientation and training. She learned more from these activities and encouraged for the session discussion about the importance of vegetable cultivation, nutrition, hygiene and cash income. She motivated and decided to cultivate vegetable on her farm. In the beginning, other participants of sessions didn't believe and teased on her decision. Pooja made commitment in front of participants the she will do first and share



Pooja Thapa with her fresh vegetable farming.

her progress to them. Immediately, she requested program staff to involve her in vegetable farming. Staff had discussed with user committee and recently provides poly house support from the project and she had planted 150 sidling inside the poly house. There is no irrigation near to her land for proper irrigation facility to the cultivated sidling so she immediately contacts her husband to purchase 200 meters 20 mm HDPE pipe. Recently, her husband sends Rs. 5,000.00 and she purchase pipe for the irrigation facility and also purchase 20 kg fertilizer from local market. She learnt technology for off-seasonal vegetable farming and received seeds. She did hard work in the field to get good yield and fulfill the commitment.

After some time, the physique of the tomato looks like very good and ready to eat and sell. Most of the local people came at her home and purchase tomato. When they seem the physique of the tomato they became surprised and talked with her. Some time she takes tomato at the collection center - Naumula bazaar. In total she was able to get the 7 quintal of tomato and earned amount of 28,000.00 at the rate of NRP. 40.00 in the average. She is happy with her progress that could share and show to the other participants. She has planned to continue vegetable farming with the total land either she get support from any project or not. She spent income from vegetable to buy for cereal crops, medicine, copy, pen for children and cloths for other household member. She increased food sufficiency for five months that was only for three months before. Regular consumption of green vegetables nutritional condition of her family has been improved and using less medicine than before. Social mobilize of the project for this VDC, Roshan Gurung says, "Pooja is a hard working, confident and empowered women. She is capable to do more and became a model farmer to each others in the community".



Change comes on Pooja's agro-farming system after project support

5.4. Major Challenges during the Project Intervention

From the field survey, direct observation and interaction with project/donor staff, most of the people of the total household from the study area are engaged in project activities from beginning to till date. To improve the food security status of the household project has intervened through different sectors. During project intervention there are many constraints were raised at different level. Researcher has analyzed and explores the major constraints which were raised during project interventions follows.

-) Firstly, geographical diversification is one of the major constraints where it does not easily provide proper project support within planned schedule.
-) Transportation of food stuff and construction material from ending delivery point (EDP) to final distribution point (FDP) is one of the major constraints as well as transport household and project site.
-) Difficult for regular supervision and monitoring by the senior project staff, donor and stakeholders due to the geographical diversification.
-) Security of the released fund from district headquarters to project site is also a major constraint in the project period.
-) Low level of awareness on food habit and food right.
-) Matching of project period with farming seasons of community is a major constraint of the project.
-) Practice on missing of fund by responsible member of user committee is also a major constraint.
-) Alarming rate of out migration (rural youth drain) resulted in agricultural/project labor shortage thereby negative effect on rural farming system as well as project activities.
-) High level of social inequality and exclusion.
-) High expectation among the poor and deprived from project support.
-) False commitment of agencies as well as political bodies/alliance of study area for the VDC's contribution.
-) Poor institutionalization of service delivery and receiving system (health and agriculture) in study area from government sector.

- J Motivation on development activities is guided by the outside assistance rather internalized development by self.
- J Surplus of labour due to unemployment instead of food.
- J Difficult to change knowledge and practice of adult farmers who having their own lifelong experiences, memories on traditional farming practice.
- J Lack of technologies and appropriate service to promote sustainable agriculture in the study area.
- J High level of practice in external exchange and the new food custom.
- J Unmanaged and misusing food culture.
- J Missing of available food by making local wines.
- J Various unfulfillness basic needs of the community.
- J Non responsible community people.
- J Traditional farming system.
- J Climate change and it's badly effect on farming system.
- J Natural disaster like as; drought, strong wind, heavy rainfall, soil erosion, land slide, affect of diseases.
- J Gradual decrease (in some case drying) in the water discharge capacity contributing hardships in fulfilling drinking and irrigation need due to changed climate.
- J No reliability in availability of quality agriculture input in time especially improved seed from agro-vets as per demand of farmers.
- J Regular strikes of political parties.

CHAPTER - VI

SUMMARY OF MAJOR FINDINGS, CONCLUSION and RECOMMENDATION

6.1. Summary

The researcher has conducted this thesis work/study in Salleri VDC of Dailekh District in order to analyze the major intervention and socio-economic impact of food security (PRRO) project assisted by WFP and implemented by partner organization. And this food security project has aimed to ensure the availability, access, utilization and stability on food of the rural food defecated households to be attained through enhancement of their annual production and income enabling the poor to take greater responsibility over their own development efforts. Project has focused to the whole communities household, so it seemed that this program has adopted community based and demand driven approach. It was found that WFP is supporting through food security (PRRO) project in 5 VDC of Dailekh district in this study period.

The researcher has adopted the survey method like: household survey, key informant interview, field observation, case study collection and office record observation. The interview has taken with 51 persons from study area, 14 persons were for key informant interview from stakeholders and 3 case studies were collected during the field visit in Salleri VDC.

Thus, related data were collected and those data were analyzed through the different analytical table, mathematical ratios, graph, chart etc. Then, as a result of survey and its analyzing undertaking, the following summary of main findings, conclusions and recommendations have been presented.

6.1.1. Summary of Major Findings

The major findings of this study are summarized as follows;

-) Among the 51 sample household respondents, 29% Bramin/Chettri, 12% Dalit and 59% ethnic caste were interviewed. Out of them, 86% were Hindu and 14% were Christian religion.

-) Among the 51 household the total population was found 358. Out of them 47% were male and 53% were female. The data shows that the average family size of the study area is 7 persons per household.
-) Among 358 total population from 51 sample households, 13% were 0-5 years, 24% were 6-15 years, 49% were 16 -60 years and 13% were above 60 years. Out of them 53% were married and 47% were unmarried.
-) Among total population from sample households, 17% were illiterate, 32% having secondary level, 12% having higher and only 5% were having campus level education.
-) From the analysis, it was found that majority of the population are having agriculture occupation. Out of total, 38% were applying agriculture, 14% having jobs inside country, 9% having pension, 6% were overseas jobs, 34% were student and small children.
-) Food availability pattern for a whole year from own production before implementation of the project is found that 59% were having access for upto 3 months, 39% having 3-6 months, 2% having 6-9 months and no one household was found for 9-12 months. This result shows that vulnerability was serious before the project intervention in this study area.
-) No households are landless, 18% household's occupying 4-8 ropani, 37% occupying 8-12 ropani and 45% having above 12 ropani land owned. It shows that land availability is high but productivity is low due to unmanaged agro farming system.
-) 100% sampled household having opportunity to involve on the project activities form starting to this phase (4 years period).
-) In exchange with their daily labor on the project activities they have provision to receive 2 kg. rice, 250 grams pulse and Rs. 90.00 cash and for total 80 working man-day's they received 160 Kg rice, 20 kg pulse and Rs.7,200.00 cash from each phase. This is highly useful and supportive for a period of hunger months (February/March and June/July).

- J) New varieties of crop like: Paddy - Radha 4, Khumal -4, Bindesory, Maize - Deuti, Manakamana, Arun, Wheat - Annapurna - 4, WK-1204, Off seasonal fresh vegetable seed - Cauliflower, Cabbage, Cucumber, Radish, Pea, Beans, and Cash Crops - Ginger, calcosia etc were farmed for increase their production and income.
- J) Sampled households were found multiple coping strategies. Among total sample HHs, 10% were applied 3 options, 35% applied 4 options, 43% applied 5 options, 10% applied 6 options, only 2% were applying 7 options and no one households were found single option for their coping due to the family size, various basic needs, low production and income.
- J) Most of them households having access on improved seed after intervention. Respondents were using improved as well self produced seed for their farming. Among them, 4% HHs were using certified - 1 and self stored, 33% using certified - 2 and self-stored, 47% using certified - 3 and self stored, 16% were not found for access on improved seed and no one households was found for foundation seed. Data shows that the pattern of using improved seeds is increasing smoothly.
- J) Out of total sample household, only 16% households were using their self produced and stored seed, 33% used form their neighbour and self produced, 20% used NARC and self produced, 18% used agro-vet and self produced and 16% used seeds from DADO and self produced. This data shows that the seed source selection pattern is also increased.
- J) After the intervention, the annual income status of sample household was found increased. Result shows that 35% HHs having 10-15 thousands, 24% HHs having 15-20, 18% HHs having 20-30, 14% HHs having 30-40 and 10% household having access above 40 thousand annual income increment compared with previous year. The income status shows increasing level of community people.
- J) After selection appropriate sources and seed for farming, the annual production status of the crops was found increased compared with previous period. Result shows that 25% increment on paddy, 30% on maize, 15% wheat and 30% was found on cash crops. The result of increment level was behind agriculture transformation through project support.

-) Food availability pattern for the whole year from own after implementation food security (PRRO) project was found increased compared with before. Result shows that HHs percentage of having upto 3 months were strongly decreased from 59% to 16%. The variant households were shift on 3-6 months as a result of intervention.
-) Having food access for 3-6 months HHs before projects were increased 39% to 57%, 6-9 months were increased 2% to 25% and 9-12 months were also 0% to 2%. Result shows that the level of increment percentage of households was strongly grow up their access after the project intervention.
-) Group meeting activities are satisfactory with 100% regularity each.
-) 100% users committee having management rules and plan for the sustainability of the community assets.
-) Due to gender inclusion, 60% female and 40% males were having access short term opportunity at local level.
-) 98% respondent felt that they were having opportunity to enhance their capacity through training, orientation and cross visit.
-) 100% community assets creation works has handled by user committee but no construction works has done by partner.
-) Among the respondent, 76% thought that the role of community assets creating sector is effective and 26% felt its role is less effective for them.

6.2. Conclusion

This present study has attempted to analyze the major intervention and socio-economic impact of food security in Salleri VDC, Dailekh project supported by WFP. In the study area most of the households were facing food scarcity before the project intervention. The problem of food stuff in study area arises due to various reasons such as, traditional farming and seed using patten, low level knowledge on high yielding improved seeds, unproductive size of land holding, low productivity, unmanaged utilization of fertilizer, lack of agricultural credit, lack of market facilities, insufficient irrigation facility and other basic infrastructure etc.

Regarding the nature of food deficiency in the study area the findings proved that 59 percent households are having food up to 3 months, 39% having for 3-6 months and only 2% having for 9-12 months and as well no one household is found to be landless in the study area and those households which have their own land were found to be very small in size unproductive and fragmented. In the study area average family size is 7 person/household. Out of total population 38 percent people are engaged in agriculture. The illiteracy percent in the study area out of total population is 17 percent.

Regarding after project implementation, intervention was made according to the demand and the latest scenario of the community. Project activities were accomplished as per level of the household food security status. It was found that through awareness sector, community assets creation, technology transfer and short term logistic support has made to enhance the food availability through high production and income of the community people. The main abstracting part of production and income are lacking of good knowledge on improved agriculture, poor community assets, application of traditional agriculture technology and unavailability of proper logistic at local level.

Regarding impact of the project intervention, logistic support can hold high level of contribution for the most hunger months when the harvested food was completed and new is not on the harvesting stage and there is no any option

for collection of proper food at household level for their coping. Application of high yielding capacities improved seeds, transformation of improved agriculture technology like; crop farming under poly houses, high value crop farming, farming of early variety and the construction of irrigation facility, preparation of compost are the highly effective prospects to create an opportunities to uplift food availability months from 3 months to 6 months and from 6 to 9 months. Availability of the affecting factor made increment on the production of crops compared with previous as well as income. Some of the community members show the extra example of the effectiveness. It is the lesson learned that if regular technical support and making aware about improved farming system community people can made food availability themselves. There is no necessary of external assistance.

Regarding the constraints during project implementation period, too many constraints were found raised. Even though kind collaboration among community people, project staff and donor staff project having high contribution to uplift the socio-economic status of the community people. It can proud say that lessons were learnt from the constraints. Constraints were the directors for coming days.

In such situation, it is necessary to understand the present situation of food availability in the rural area. Various programs and policies should have designed for the sustainability and regularity like this progress for further areas like as this study area.

6.3. Recommendations

After analyzing the facts and figures obtained from the field survey, some important findings and conclusions are made. Those findings and conclusions reflect some issues that are to be judged and considered. On the basis of the conclusion and findings, the following recommendations are made to enrich the food security situation of the community people.

-) To increase agricultural productivity, proper irrigation facilities, agricultural credit, fertilizer and improved seeds should be provided on time.
-) Additional income generation activities should be promoted and free vocational training and financial support should be provided to the vulnerable household.
-) As the employment opportunities in agriculture sector is seasonal in nature, excess labour force engaged in agriculture sector should be transformed in to other more productive sectors. For this agro based high income generating activities should be encouraged.
-) Illiterate population should be educated through non-formal education so reflect classes should be established where illiterate people can empower their capacity as per their choice and voice.
-) In order to encourage saving and discourage unproductive expenditures such as consumption of wine, smoking, gambling etc. public awareness programs should be conducted and branch less banking facilities should be expanded in rural area which was exercised in the study area by WFP and partner.
-) Large family size are found to be one of the causes of food deficiency in study area so the importance of family planning should be taught to the villagers and family planning programs should be made effective.
-) The government should provide alternative opportunity of employment for the lower caste as well low income people having small size of land holding.
-) The government should regulate the subsidy program in agriculture sector to made access on improved agriculture technology/inputs specially targeting to the poor and vulnerable people.

-) To alleviate the traditional and lifelong farming practices of adult people of the community stakeholder should generate LRPs who are community based and in a good position to provide support to smallholder farmers with their experience and success depends on their training, the availability of good training/extension materials, their linkage with line agencies and exposure visits.
-) Increased access to agriculture and livestock extension services which will be an essential component for support to small scale agriculture.
-) Migration is a complex issue, migration results into shortage of labour. In turn less efficient and lower returns to agriculture promote migration. It is important to identify and promote production packages to emphasize high returns to labour.
-) Small commercial nurseries should be established in pockets. These nurseries can better identify best varieties and supply quality seedlings and embedded training to farmers especially for vegetable and fruit crops which helps for food security.
-) There is a need to establish local service providers in right in communities to provide quality seed and essential training.
-) It was also found that project success depended on strong mobilization of farmer groups. This includes social mobilization of the group, technical training, exposure visits, demonstrations, farmer field schools, and right based perspective to enable access to government services.
-) The combination of the agriculture and livestock opportunities has been considered vital in achieving increased food security. Food insecure households are both crop and livestock producers and creating joint service providers makes service provision more profitable and sustainable.
-) Addressing food security is challenging issue. It is recommended that longer term agricultural development program with coordination between donor and government should be designed.

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Annex - F

Key Informant Interview (KII) Checklist

(Concerned stakeholders: LDO /CDO, DADO/ NARC/ WFP FM /INGO-NGO /Political Leaders at District/VDC Level and others)

On 'Major Intervention and Socio-Economic Impact of Food Security Project in Salleri VDC, Dallekh' in requirement for the partial fulfillment of Degree on Master of Arts in Rural Development

District Municipality/VDC ward # Date:

1. DAO/DDC /VDC/Political Leader level:

Name of the Officials

Designation

Discussion would primarily be centered on aspects as follows:

S.No	Particular	Status
1.	) Formation of UCs.	
2.	) Food and Cash Distribution process and monitoring mechanism	
3.	) Identification process of highly vulnerable communities.	
4.	) Cash distribution, utilization and monitoring.	
5.	) Program planning, implementation, mgmt. and M and E; On-going other program/activities relate to food security, its integration with other district level program /activities.	
6.	) Policies, strategies formulation and their implementation strategies for food security improvement.	
7.	) Major Intervention of project activities; Food and Cash support/Construction of infrastructure/improved seed support/Improved technology support/Training and Knowledge sharing	
8.	) Food Security Networking at local, district and national levels.	
9.	) Achievement of the project in reducing the level of poverty (food availability at local level during 4 Hunger Months, frequency of meals increased).	
10.	) Main Problems	
11.	) Main Suggestions	

2. DADO/ NARC/WFP FM

Date:-.....

Name of the Officials

Designation

.....
Discussion would primarily be centered on aspects as follows:

S.No	Particular	Status
1.	) Awareness about the Food Security project.	
2.	) Liaison and support mechanism.	
3.	) Support / assistance rendered to activities implementation.	
4.	) Capability strengthening.	
5.	) Training, visits, Demonstration and other technical support rendered to NGOs.	
6.	) Activities monitoring mechanism.	
7.	) Availability of seeds and other inputs including technical backstopping.	
8.	) Visits and meeting frequency with Project NGOs and other concerned stakeholders.	
9.	) Irrigation potentiality in the target area.	
10.	) Support rendered and Progress attained.	
11.	) Availability and reliability of the sources.	
12.	) Potential / prospect and problems of Irrigation development in the target area.	
13.	) Leasehold /cooperative farming - program, prospect and potential.	
14.	) Seed /grain bank /Collection Center construction status.	
15.	) Its operation and management mechanisms.	
16.	) Food Security networking functioning at District level.	
17.	) Monitoring support.	
18.	) Suggestions for further improvement and sustainability.	

3. INGOs/NGOs level Officials including Social Mobilizers (SM):

Name of the Officials /SM

Designation

.....

Discussion would primarily be centered on aspects as follows:

S.No	Particular	Status
1.	) Program planning, implementation and achievements.	
2.	) <u>Progress status:</u> i. Physical- Activities Target and progress.	
	ii. Financial - Activities Allocation and expenditure status.	
3.	) Integration /linkages with DADOs, NARC, DDCs, VDC and other concerned stakeholders.	
4.	) Project staffing - Needs and availability.	
5.	) Availed technical supports for capability strengthening, dedication and facilitation for job performance.	
6.	) Functioning of Food Security networking and effectiveness.	
7.	) Monitoring of activities implementation.	
8.	) Problems and difficulties encountered.	
9.	) Issues related with sustainability.	
10.	Suggestions for improvement.	

Annex - G

Case Study Template

On 'Major Intervention and Socio-Economic Impact of Food Security Project in Salleri VDC, Dallekh' in requirement for the partial fulfilment of Degree on Master of Arts in Rural Development

Case study no.....	
Photo	Please attach separately pp size photo into this word document of the beneficiaries and program impact related photo.
Name of the person telling their story	
Where they live	
Age and, what is their family situation (do they have children, how is their family size, are they the head of the household, who is employed, what is their income, what is their health status etc)	
Involvement in the project (are they beneficiaries, partners, representatives from the authorities,?)	
<p>What is / was life like for people living in the project area?</p> <p>What problems do / did they face? (for example: low incomes, food insecurity, displaced by conflict, lack of education or opportunities, poor health, risk of recurrent disasters, etc.)</p> <p>What will happen / would have happened to people if the project doesn't receive funding, or if project doesn't work in this area?</p>	
How long has UN/WFP and other organization had been working there on food security?	
<p>How have / will specific project activities (e.g. a improved seed, food, cash, technology, training, etc.) helped people?</p> <p>How is life now as a result of each specific activity?</p> <p>Can you provide individual costs of these</p>	

<p>items (if needed, receive details from programme staff).</p>	
<p>What more do people need, as individuals, families, and communities?</p> <p>What further activities or changes would help to improve their lives? This can help to show that more needs to be done.</p>	
<p>What overall changes have there been of WFPs and other organizations food security program at over time? (e.g. improvements in food availability, health, literacy levels, income, availability of infrastructure etc.)</p>	

Annex - H

Used Random Number Table

64612	77930	16137	12927	89071	72799	41537	36124	90640	31518
68866	19304	42847	17249	97332	86300	39716	03893	06408	32722
50198	35604	77895	61969	51985	08141	33488	78995	04992	75339
76698	11509	43552	41494	83724	01956	75786	19758	45947	94834
73412	52071	43503	62873	53324	11284	43196	06348	30008	62652
42295	74036	20944	62432	59331	89684	88553	32377	93850	12720
14980	35863	08297	96342	19765	47025	29892	81190	68117	08072
76350	78339	37830	99947	43444	98453	50998	75554	04195	85201
01581	46405	52672	46305	08886	33547	38993	18768	14469	72645
67238	13884	20162	80008	62569	22205	30546	28072	44837	49459
66570	33762	21469	00199	27172	15397	82047	61497	07638	97270
10557	21230	49179	29167	91844	51682	71808	45604	47827	87184
09219	97504	31797	55465	99417	95123	17753	98301	97544	98741
32543	64753	03363	75921	19893	88730	18290	20197	61643	60201
05689	43380	65162	24128	11352	45001	03769	89504	99057	83269
03507	88301	79068	65814	83846	19277	66548	97374	68215	52775
28225	32562	80334	30146	61413	91111	43080	28520	49848	82813
99646	08072	73891	72968	00687	38170	31509	05309	49248	05801
26756	07050	27244	13452	53824	42973	53428	95469	10687	17704
25235	65105	57132	92464	29317	60554	06727	88036	74389	67967
25656	67440	05564	71519	49575	64287	00165	16939	41789	66082
33390	91113	08488	81634	16286	46749	73217	41865	19390	67245
43992	57138	00819	15070	20945	25400	57957	71599	16271	57901
13893	92231	60466	90318	37897	66912	90283	37008	36989	78760
66398	01315	02014	70505	34941	76983	61435	54541	97455	39820
31762	31972	63350	36644	33992	44364	85710	21443	77930	38707
30127	40804	64291	59007	77904	18539	75234	65215	67092	58640
32105	53327	84967	52173	65105	98585	56590	57180	25674	84454
57981	21947	84104	02266	33572	35803	16381	96110	52509	16049
56126	26952	92400	94553	96271	66806	89957	86934	47075	94908
13006	34316	09174	78732	96563	29286	02657	02883	18857	37822
71463	03840	20296	13460	48767	73046	59743	77656	04051	18536
85318	60674	67335	63363	48627	83227	35832	12923	73892	07336

88510	93235	41827	12682	46688	41684	97946	93028	99020	15613
00429	98471	73469	59309	02463	11443	64722	09558	33674	17649

Source: Earl Babbie, 1990