

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

Participation issues in agriculture development are the areas of concern at national, regional and district levels of the country. The word participation has been used in highly variable ways. In this study, participation is used with the involvement of women farmers in extension services (training) and decision making with the collaboration and interaction with extension workers in group approach. Nepalese agriculture employs 72.8% of the women in various agriculture activities (ABPSD, 2008). Considering the important role played by women and inequalities which limit the opportunities of women to participate in agriculture development activities, the Government of Nepal recognized the necessity for full participation of women in agriculture extension program from national 7<sup>th</sup> five year plan (1985-1990) of the country. The plan has emphasized towards improving women participation in agriculture development programs, access to services and resources.

The term participation connotes with different meaning at different context. Literally, participation means to take part in or to be involved in. In 1994, the World Bank defined "participatory development as: a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them" Participation could be defined as a direct involvement of marginalized groups in a development process, which aims to build people's capabilities to have access to and control of resources, benefits and opportunities towards self-reliance and an improved quality of life (Mellouli, 2003). Participation in agriculture extension is the process of communication among men and women farmers and extension workers during which the farmers take the leading role to analyze their situation, to plan, implement and evaluate development activities. It is a way helping the disadvantaged people and women to gain access to and control over resources or services such as training, farmer's tour, inputs, information etc needed to sustain and improve their livelihood.

Training is a planned process designed to expand or refine skills and knowledge, and to examine attitudes, ideas and behavior with a view to modifying them. The participatory approach to training is based on the belief that people learn

more effectively when their own capacity and knowledge is valued, and when they are able to share and analyze their experiences in a safe collective environment. In the preparation of the training throughout its process, the content should match people's needs and be appropriate to their life and work. The role of the trainer is to facilitate the process of learning, rather than to teach (Williams et al, 2007).

Agriculture in Nepal is not only the mainstay of its economy but also as a way of life of the rural people. Agriculture accounts for over 35.12 percent of Gross Domestic Products (GDP), and absorbs livelihood for 65.6 percent of the economically active population (CBS, 2012). Nepalese agricultural development has largely been influenced by the agricultural extension approaches adopted in the country. In strengthening agricultural extension system in Nepal, Government of Nepal introduced and practiced many extension approaches in the last four decades. The approaches like Training and Visit System, Integrated Rural Development Approaches, Conventional Approach, Commodity Group Approach, etc were used for the agriculture development. However, none could produce significant results enough to motivating and effectively mobilizing vast majority of rural poor men and women farmers and to increase agricultural production and productivity. Because, all these approaches have focused their attention on material resources and structural changes to extension services to achieve the stated goal and no extension approaches had given enough attention to human resource development, i.e., to organize farmers themselves (Sen, 1993). The weaknesses of the past extension approaches were manifested by their orientation to physical target, lack of total accountability, lack of priority and dilution of activities. Through interventions from the recent projects, "Group Approach" has been adopted across the border for extension and development projects (K.C., et. al., 2003). Extension system with farmers' group approach is now adopted all over the country (Sharma, 2006).

Agricultural training is the one of the major components of agricultural extension service system of Nepal to educate and motive the farmers about application of scientific research and new knowledge to agricultural practices for agricultural development of the country. In spite of the fact that extension service has a long history in this country, its efficiency and effectiveness are still questionable, and there is considerable dissatisfaction with active participation of beneficiaries in extension activities. Realization of the beneficiaries need and lesson learned from different countries experiences that improving knowledge and capacities of women

farmers through participatory approach is almost important to create empowerment which helps them to deal with not only agricultural related problems but also problems in other domains.

For enhancing the activities related with women, Ministry of Agriculture and Cooperatives (MOAC) established Women Farmers Development Division (WFDD) in 1992. WFDD's mandate was to mainstreaming the gender issues in all agricultural policies and program and to increase participation of women farmers in agriculture program and activities. At present, the WFDD is known as Gender Equity and Environment Division (GEED). This division is responsible for policies, programs and projects to increase the participation of women in agriculture development.

Because of male dominated society, participation of male is found more in extension services like training. Men as a heads of families, have received the greater part of extension support, while women have benefited less and have been rarely encouraged to play an equal part in extension activities. Many training programs are conducted by several agencies to meet the agriculture development. However, rural women has been neglected to involve in such trainings and are not being conducted in a systematic way and according to the convenience of them and to their genuine requirements. Thus seeing women role in agriculture, women are inseparable but neglected partners in the process of agriculture development. Therefore, it is important for agriculture extension to work with women to bring them the knowledge, skills and support they need to improve their agriculture activities. It is necessary to explore the realities behind policy and the participation of women in training in the group approach.

## **1.2 Statement of Problem**

Nepalese society is particularly patriarchal in nature i.e. male dominated society. Women in rural areas have traditionally fewer rights and fewer income opportunities than men, often because of patriarchal and conservative thinking, according to which the man is perceived as the main productive working force (Schussler, 2002). Women are major actors in agriculture but their participation is confined to fieldwork and reproductive activities, while men control over decision making and productive activities including marketing (Bhattarai, 2002). The female farmers are not recognized as farmers, but they are referred to as farmer's wife, sister,

daughter, or daughter in law, etc.; thus female farmers receive second hand information (if any), despite the fact that they contribute a great deal to agriculture (Kumar, 2000).

Women are directly involved in agricultural production activities. However their roles are not well recognized in the world. They received low priority in policy making, decision-making and program planning and implementation. Although, they de-facto head of the family, much of the decision on agricultural production are made by male, they have less access to extension services. The social custom and work burden make them less contact with extension personnel. They usually received second hand information through male members of the family. This has negative effect in agricultural production.

The national population census reported about 48.5 percent male and 51.5 percent female (CBS, 2012). It was realized that women had not benefited as much as men from the economic development program. This is because women were found to have limited opportunities to access and control over productive resources. In the process of economic development, women's participation is important (NPC, 2007). But, women have less benefited from the agriculture extension (training) and farmers group activities of the country. Government of Nepal has been conducting training program in order to improve knowledge, skills and attitude for both men and women farmers. However, the women participation in agriculture training program is still low. The real obstacles that women face must be understood by extension organization and extension workers. They should seek out ways of channeling extension training which helps women to get involve. This research tried to fiind out the answer of the following questions.

How were the farmers group formed?

How are women farmers involved in decision making in the group?

What do women farmers understand by participation?

What kinds of training does DADO conduct for the farmers?

What are the constraints faced by women farmers in participation in training?

What methods are successful in achieving more participation of women farmers in training?

### **1.3 Objective of the Study**

The general objective of this study is to explore the participation of women farmers in agricultural training to support gender sensitive agricultural extension program.

#### **Specific objectives**

- ) To assess the socio-economic condition of women farmer involved in agriculture.
- ) To analyze the participation status of women farmers in agriculture training in the group approach.
- ) To explore the role of women farmers in decision making and resource utilization in farmers group.
- ) To assess and analyze the constraints faced by women farmers in participating training and methods to overcome them

### **1.4 Rationale of the Study**

Gender role in farming is one of the important factors. Unless the women farmers are empowered, they cannot have decision making power on the activities of agricultural production and marketing; their social and economic status may not be improved. Welfare to female farmers is a must to improve the overall agriculture development of the country. For this, it is necessary to increase women participation in training programs on improved agri-technology friendly to women. Women as agriculturists tend to look at problems in their totality-from the sowing of the crop to its ultimate utilization either as food, feed or raw material for industry. They generally possess clear understanding of market preferences and prejudices of agricultural produce. Therefore, for economically and ecologically sustainable agriculture, the total intellectual and physical participation of the farm women in the process of agricultural development is absolutely essential.

Women plays significant role in agriculture all over the World. Report shows that Women contribute 75% in South Asia, 72 % in East Asia and Pacific and 75 % in Sub Saharan to the labour force in Agriculture (World Bank, 1998). Despite the importance of women in Agriculture , women farmers still have to carry out their agricultural activities without much support from the agricultural support services such as extension ( training), input supply, marketing and credit. Needs and priorities

of women farmers are not adequately reflected in the extension services. Women, as large agricultural producers, still remain invisible and unsupported. Hence improving and strengthening the participation of women farmers in agriculture training will help to increase the knowledge, skills which enhances vital path to increase the efficiency of the women farmers.

The District Agriculture Development Office started to form women farmers group to make women express themselves, gain confidence, built capacity to solve their own problems and improve their participation through the group activities and training as well. However, though women have been targeted, it is not clear to what extent they are participating in extension training of district in group approach. The involvement of women farmer in agriculture development according to spelled government policy is concerned in the research. The government has focused the participation of women farmers in agriculture program including training to 50 % (National Agriculture Policy, 2004). There are limited studies being on women's role in agriculture particularly their participation in training in the group approach in Nepal. The main objective of this study is to identify reasons of low participation of women in Agriculture training provided by DADO and to make conclusive remarks to overcome those problems i.e. approaches for improving women farmers' participation in DADOs agriculture training program. This study will be a good asset for development practitioners who are involved in policy making and effective programming for women in Nepal. Therefore, realizing mainstreaming a gender concern as imperative in order to address the existing uneven and unbalanced participation of men and women in the agriculture development process, the study has probed into the issues from gender perspectives.

The information generated by the study would be of great importance to the policy makers, programs managers and implementers of the governmental and non-governmental organizations, and others who are involved in the agriculture development programs. The results obtained would also have great importance in formulating gender sensitive plans and programs in agriculture sector.

### **1.5 Limitations of the Study**

Due to scarcity of resources like money and difficult geographical situation, the study was conducted in limited pocket areas as identified by District Agriculture

Development Office, Mustang for vegetable, apple and potato cultivation in the district. The finding and conclusions drawn from this study may not be widely generalized exactly in the same manner for other conditions and areas of female in Nepal. This study is mostly base on the perception of the front line agriculture extension personnel and women farmers. Therefore, professional and farmers bias might be there. Because of micro level study, generalization in all situations cannot be done. However, best precautions are followed to generalize in all situations.

## **1.6 Organization of the Study**

This thesis is divided into six chapters. In the first chapter, the background related to study topic, statement of problem regarding women farmers in agriculture extension (training), and decision making, objective of the study, rationale/justification of the study, limitation of the study and organization of the study are described. In the second chapter, introduction to basic concept, theoretical overview on gender issues in agriculture, feminist theories, and review of the previous study and conceptual framework of the study is presented.

In the third chapter, rationale of the selection of the study area, research design, nature and source of the data, universe and population, tools and techniques of primary and secondary data collection, method of data presentation and analysis, validity and reliability are discussed. In the fourth chapter of this study, geographical situation of study area, demographic profile of respondents and socio-economic condition of respondents is summarized. In chapter five, farmers group, participation status of women farmers in agriculture training, decision making in farmers group and constraints faced by women farmers to participate in agriculture training and methods to overcome are presented and analyzed based on research findings. In the sixth and last chapter of this study, summary, conclusion and recommendation is made based on study results

## **CHAPTER TWO**

### **REVIEW OF LITERATURE**

#### **2.1 Introduction to Concepts**

##### **Agriculture**

Agriculture is usually defined as the art and science of producing crops and livestock on a farm and their preparation and marketing for use by the human race. Agriculture is also an industry which includes the production of cereals (food crops), fruits, vegetables, livestock, poultry, fish and the processing in varying degree of many farm products and their marketing.

##### **Extension**

The word extension has been derived from Latin language "Ex" meaning out and "tension" meaning stretching. Literally speaking, extension means to extend, to spread or dissemination. In actual use, the term is used to disseminate useful information and ideas to the ordinary people in their working situation.

##### **Agricultural Extension**

The professional agriculturist consider agriculture extension is an educational process, a system of teaching or extending useful agriculture information, based on research and/or practical experiences, which if accepted and adopted by the farmers will serve to increase crop production and met income.

FAO defines agriculture extension as an informal out of school education service for training and influencing farmers (and their families) to adopt improved practices in crop and livestock production, management, conservation and marketing. Agriculture extension can be defined as a government efforts to bridge the gap between the Agricultural research station at one hand and farming population on the other hand by establishing teaching organizations at various level of administrations so that the result of research can be systematically extended to the farmers and their problem can be quickly brought back to the research station for study and solution. Agriculture extension is a service system which assists farm people, through educational procedure, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living and lifting the social and economic standard of rural life.



### **Extension Job**

The job of extension in agriculture is to assist people (farmers) engaged in farming to utilize technology and their own available resources in solving their problems and changing their economic and social condition.

### **Training**

Training means to educate a person so as to be fitted, qualified, and skilled in doing a particular job. It is an essential part of extension work in order to develop competence of clients. Training is defined as the acquisition and development of that knowledge, skills, techniques, attitudes and experiences, which enable an individual to make his most effective contribution to the combined efforts of the team of which he is a member.

### **Farmers' Training**

Farmers' training is a non- formal instructional activity to equip farmers to improve their abilities to produce better or take decision. In general, farmers training means to impart knowledge, to teach a new skill and bring about desirable changes in their behavior.

### **Pocket Area**

Pocket areas are those areas in the districts where the cultivation of apple, potato and vegetables are in large areas and in commercial scale and extension organization implemented agriculture development activities intensively comparing to other areas of the district.

### **Participation**

Participation means to 'take part' or to become active in our society and culture. By participation of people, we can work together to develop our society. Social participation is the key in the process of development process.

### **Gender**

Gender is a socially constructed roles and responsibilities assigned to men and women in a given culture, location and the societal structures that support them. Gender is a non permanent, learned behavior that changes over time.

### **Gender Discrimination**

It is the prejudicial treatment of an individual based on gender stereotype (often referred to a sexism or sexual discrimination).

## **2.2 Theoretical overview**

### **2.2.1 Feminist Theories**

#### **i. Liberal Feminism**

Liberal feminism stresses on the equality between men and women for equal opportunities and strives for equal rights of women. It points out that women are equally involved in the labor market as men that men should take responsibility for domestic work or that family responsibilities should be the work of paid professionals. It stresses on women's self improvement and encourage women to get into decision making positions via their entry into male professional (e.g., law, banking, business, police etc), urges women to see a career as important as marriage. It does not give importance to the sexual differentiation between men and women. It gained predominance during the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and came to forefront of the women's movement in the west in the 1960's (Acharya, 2009)

#### **ii. Radical Feminism**

Its beginning can be traced to the late 1960's, coinciding with the second wave of feminism and the new women's liberation movement in the west. It emphasize men and women are considered different from each other because of their biological and psychological characteristics. The conflict between men and women is the primary contradiction in society and this is based on male power. Men as class are seen as the responsible for oppression of women. Family is seen as the center of oppression. Wage struggle or other economic issues are concerns of mass organizations and not really feminist because of male domination. It promotes separation between men and women and suggest that women should not only relate to other women and create a women centered social and cultural world (Millet, 1970).

#### **iii. Marxist Feminism**

The antagonistic relationship between classes is the context within which the women's oppression is situated in the context of class oppression which supersedes all other forms of oppression. The fight of women's' liberation is not a fight of women against men but of women against the capitalist system and all capitalist social relationship of male dominance. Only with class struggle will the sexual discrimination of women end. Once private property is abolished, the exploitation and oppression of women will automatically disappear (Acharya, 2009).

#### **iv. Socialist Feminism**

It combines the Marxist and Liberal Feminist positions, but is marked by a strong radical feminist influence as well. It has been influenced by various disciplines; sociology, economics, political science and psychology. It recognizes gender along with class in important element in women's subordination. Gender relations are understood as relations of power and therefore they must be analyzed along with class, caste, or other power relations to understand the configuration of society. It believes that liberation and end to oppression cannot be achieved within the existing system. Struggle has to be against all forms of oppression. It argues for collaboration between men and women in the creation of new society and for the collaboration of women of all classes to eradicate injustice of all types. It highlights the role of media and education in promoting stereotyped attitudes of men and women and the need for changing school curriculum (Einstein, 1994).

#### **2.2.2 Gender Issues in Agriculture**

The term gender is culturally specific set of characteristics that identifies the social behavior of women and men and relationship between them. Gender is a broad and analytical concept which not only encompasses all that are concerned with women but also highlights women's roles and responsibilities in relation to those of men. Gender is the socially constructed roles and responsibilities assigned to men and women in a given culture location and the societal structures that support them (Dongol, 2004). There is a general misconception of using women and gender synonymously. Gender, like age and socio-economic status, is an aspect of social organization that both reflects on and is circumscribed by the surrounding culture.

Gender and gender identity are socially constructed through process of socialization, whereby human beings become social persons. What men do and what women do, how they behave and interact together with cultural ideas and interpretation of gender differences constitute a gender system. Gender analysis is the systematic examination of the roles, relationships and processes between women and men in all societies, focusing on imbalances in power wealth and work load (Bhattarai, 2002).

It is also a matter of concern for the social scientists all over the world that gender issue in agriculture makes so much of a difference. The questions are: in agriculture operation who decides who implements, and what are the major

implications in the process? In a male dominated society, in social, political and economic spheres women have hardly any scope to play a significant role. But nobody can deny the fact that in agriculture they do play a crucial one. Cultural and Anthropological literature suggests that agriculture is the invention of women. They were engaged right from beginning in feeding and milking animals. Thus, right from early ages of invention of agriculture to the present day modern agriculture, women have been playing a significant role in agricultural development (Achanta, 1983).

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Gender issues in agricultural development have become a common area of concern at global, regional and national levels (Bajracharya, 1994). In addition, women's knowledge and skill in relation to agriculture have not been acknowledged in the past. Female farmers play a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, post-harvest operations, agro/social forestry, fisheries, etc. (Tripathi, *et al*, 2000).

Women are least paid and their role can be enhanced and improved through the rational integration of the women in the agriculture. Women contribution to agriculture, whether it is subsistence farming, commercial agriculture or shifting cultivation, measured in terms of the number of task performed and time spent, is greater than that of men. The majority of the world's agricultural producers are women (LEISA, 2002). They produce over 50% of the food that is grown worldwide more in most developing countries.

History believes that it was women who first started cultivation of crop plants and initiated the art and science of farming. Women started gathering seeds from native flora and cultivated those of interest from the point of view of food, fodder,

fiber and fuel around their hamlets when their men folk went in woods for hunting. Even today, women are traditionally known for their seed selection ability (Swaminathan, 1985). Women have played and continue to play a key role in conservation of life support systems. They have protected the health of the soil through organic recycling and promoted crop security through maintenance of varietal diversity and genetic resistance.

Participation in training aims to bring desirable changes in knowledge and skills of farmers. Training is also believed to bring positive change in the farmer's attitudes. Women's participation in training means providing women, equitable access to opportunity, benefits and resources available in the society. It is an essential ingredient of women's empowerment. Ensuring women participation is essential to achieve gender equity in access, control over resources (Mellouli 2003).

### **2.2.3 Changing Approaches of Women Development**

#### **i. Women in Development (WID)**

It originated in early 1970s after the publication of Ester Boserup's book *Women's role in economic development*. Its theoretical base is linked with the modernization theory of the 1950-1970. By the 1970s, it was realized that benefits of modernization had somehow not reached women and in some sectors undermined their existing position. It focus that it need to integrate women in economic systems, through necessary legal and administrative changes. Women's productive role emphasized. Strategies to be developed to minimize disadvantage of women in the productive sector. WID has solidly grounded in traditional theory which assumed wrongly that women were not integrated in the process of development. It accepted existing social structure. It did not question the source of women's subordination and oppression. It treated women as an undifferentiated category overlooking the influence of class race and culture. It focused exclusively on productive aspects of women's work, ignoring or minimizing side of women's lives (Sharma, 1995).

#### **ii. Women and Development (WAD)**

This concept of women development emerged from a critique of the modernization theory and the WID approach in the second half of the 1970's. It draws its theoretical base from the dependency theory. It focused that women have always been part of development process-therefore integrating women in development is a myth. It focuses on relationship between women and development process. It accepts

women as important economic actors in their society. It looks at the nature of integration of women in development which sustains existing international structure of inequality. It assumes that once international structures more equitable, women's position would improve. WAD does not question the relations between gender roles (Dongol, 2004).

### **iii. Gender and Development (GAD)**

The GAD approach emerged as an alternative to WID in the 1980s. Contrary to WID approach, in which women were viewed as passive recipients of assistance, GAD approach views women as active participants in development. This approach is influenced by socialist feminist thinking. It focuses and offers a holistic perspective looking at all aspects of women's lives. It questions the biases of assigning specific gender roles to different sexes. It recognized women's contribution inside and outside the household, including non-commodity production. It stresses the need for women to organize themselves for a more effective political voice. It recognizes that patriarchy operates within and across class to oppress women. It focuses on strengthening women's legal rights, including the reform of inheritance and land laws. It talks in terms of upsetting the existing power relation in society between men and women (Dongol, 2004).

## **2.3. Extension system in Nepal**

### **2.3.1 Evolution of Agriculture Extension Development in Nepal**

The agricultural development in Nepal in a formal way began as in 1921 by establishing an agricultural office named as *Krishi Aadda*. After political transformation in 1951, agriculture development was accelerated in planned way by the new government, *Tribhuvan Gram Vikas*, a rural development program was initiated under Tribhuvan Village Development Department in 1952 (CATC, 2002).

During the past forty years extension services witnessed several shifts in approaches of extension elsewhere. Gandaki Agricultural Development project (HMGN/GTZ), 1968-78 promoted fertilizer-based green revolution type technology based extension approach. The impact of this project was seen only on resourceful farmers. Integrated Hill development project (IRDP) and subsequent IRDPs during mid seventies continued high input technology based extension benefiting rich farmers. Training & Visit (T&V) approach was introduced in 1975 in the World Bank funded Narayani

Zone Irrigation Development Project (NZIDP) in three districts of Nepal terai. This approach was gradually extended to all irrigation projects funded by World Bank (K.C., et. al., 2003).

After 1981/82, this approach was extended to other World Bank funded projects, such as Agricultural Extension and Research Project (AREP), Hill Food Production Project (HFPP) and Agricultural Extension Project (AEP). Between 1980s and 1990s, through these projects and others funded by ADB and DFID such as Third Livestock Development Project (TLDP), HARP etc, agricultural extension in Nepal got modernized, decentralized and pluralistic research. Research extension became more oriented towards farmer's need. Farmers organizations were strengthened and established as potential institutions at grass root for technology verification, transfer, and input-output marketing. Farmers recognized as beneficiaries of the extension and development strategy and were made proactive in participatory planning based on tools such as PC/PS (Problem census problem solving), System Learning Approach, Village Level workshop etc, need and priority identification, project implementation, resource mobilization and evaluation. The terminated projects such as Agriculture Research and Extension Project (AREP) (GoN/WB), HARP (GoN/ADB) etc were very instrumental to introduce and institutionalizes reforms in agricultural extension (K.C., et. al., 2003).

### **2.3.2 Review of Agriculture Extension System in Nepal**

The Government of Nepal introduced and practiced many extension methods and approaches in the last four decades. Meanwhile, with different agriculture development project different extension approaches were implemented overtime but most of such approaches were imported and designed by foreign experts and continued only up to project period or was not sustainable. The extension approaches were not further modified to improve the extension service delivery, and to practice in regular system according to the changing need. The extension approaches adopted in the past and present are as follows:

#### **2.3.2.1 Approaches Adopted in the Past**

Many attempts were made in the past to reform and strengthen Agricultural Extension System (Sharma, 2003). These attempts include:

#### **i. Training and Visit System (T&V)**

This system was based on the principle of single line of command with continuous training and contacts. Research-extension linkage was strong, though material support for adoption was quite weak.

#### **ii. Integrated Rural Development Approach**

This approach was based on the integration and coordinated management of resources for rural development. Technology support was however not adequate.

#### **iii. Tuki (multiple progressive farmers) Approach**

This approach had the thrust of utilizing trained local farmers based on the self-motivation. These farmers were also working as principle agri-input dealers, so that the technological message could go along with the inputs required.

#### **iv. Farming System Research and Extension Approach**

This approach viewed research and extension in the whole farming system perspective, so that cropping system research could be done. Farmers would know the interdependencies between components and could relate to physical, biological and socio-economic factors.

#### **v. Block Production Program**

This program was based on the principle that intensive use of resources consolidated together in an area called "block" could increase productivity. This was not effective for scattered area. These approaches were implemented through the support of donor agencies. This actually resulted in multiple extension approaches at the district at the same time, confusing to the implementer and reducing the clarity of objectives, roles and targets of extension.

These above mentioned approaches were implemented with the support of donor agencies. This actually resulted in the multiple extension approaches at the district at the same time thus leading to confusion of the implementer (DADO) and reduced the clarity of objectives, roles and targets of extension.

#### **2.3.2.2 Approaches Adopted at Present**

The following approaches are used to reform and strengthen agriculture extension system at present (Sharma, 2006).



### **i. Conventional Educational Approach**

Agricultural extension system always attempts to educate farmers and other concerned stakeholders by communicating the skills. The skills are imparted by means of different techniques of extension education categorized into individual methods, group methods and mass methods. These methods are being used for changing knowledge, skills and attitudes of farmers in a positive manner, so that the farmers ultimately show their changed behavior by adopting new innovation. In this approach, the farmer leader in particular is trained and utilized to diffuse the technologies to his neighbors. It is a continuous process to educate and disseminate the message. This approach is in operation even now through government organizations.

### **ii. Commodity Group Approach**

This approach has been widely implemented by both public and private sector organizations.

a) Public Sector: District Agriculture Development Office (DADO) established in all the 75 districts of the country under the Department of Agriculture (DOA) of the Ministry of agriculture and Cooperatives (MOAC) operates its extension services through Agriculture Service Centers (ASC) at the grass root level.

b) Private Sectors and NGOs: Apart from the public sector organizations mentioned above, there are several agencies and private service providers and several hundreds NGOs supporting agricultural extension activities in the country. These organizations work mostly with commodity groups either individually, through the funding of donor agencies or at partnership basis. These are primarily involved in the production and marketing of seeds, fruit saplings, and fingerlings and supplying of sprayers, fertilizers, pesticides, agricultural tools etc.

### **iii. Farmers Field School**

Farmers' field schools were established for developing field-training methods as a part of Integrated Pest Management (IPM) program. Field schools have been proved to be an effective means of reaching farmers and helping them to have an access to the knowledge and skills required for crop production and pest management. Furthermore, the farmer's field school is a discovery based on the adult learning approach. A group of farmers attend at regular intervals and learning a participatory manner. This approach is becoming popular because of its democratic and participatory process.

#### **iv. Modernization of Extension System**

a) Extension services: The present extension services are being improved through:

- Projectization;
- Revitalizing the training system;
- Improved M&E system;
- Revitalizing the mass media system; and
- Net working central and regional extension programs to the districts and grass roots.

b) Pluralism in extension: There are a number of stakeholders to be involved and a number of concerns and issues to be addressed through extension. A pluralistic extension approach is therefore needed. This approach is being exercised through:

- Strengthening farmers' organizations;
- Partnership with private service providers; and
- Contracting extension services.

c) Decentralization: In Nepalese administrative set up, District Development Committee (DDC), an autonomous body, is entrusted with the responsibilities of development activities of the district. Accordingly, the devolution of agriculture programs has been done.

Decentralization is being improved through:

- Exercising bottom up planning;
- Updating district data base and inventories; and
- Strengthening functional mechanisms with DDC.

d) Human Resource Development and Management Reform: In order to address the growing issues in the extension system, human resources need to be strengthened and management needs to be reformed. With the realization of this, the government is undergoing the followings at regular basis:

- Staff orientation
- Extension staff in-service training
- Human resource management reforms

#### **v. Coordination and Linkages**

The earlier model of coordination and linkages, were limited only within government organizations. Now, this has been tremendously reformed, by accommodating all sector stakeholders in linkage mechanism, both public and private

and fund providers, Efforts are being made to coordinate the functions of stakeholders concerned through an appropriate technique.

#### **vi. Participatory Process**

Surrounded by different constraints and opportunities, farmers form different attitudes thereby arousing different needs towards the programs. In order to reflect their needs, programs are being planned and implemented through the participatory process. Actually the farmers participate in the planning workshop and express their needs towards the programs and then DADOs formulate the programs on the basis of these needs.

#### **2.3.2.3 Challenges of Current Agriculture Extension System**

Every nation is affected by the trend of development around the world. Some new development concepts and approaches popularly adopted in many countries have directly or indirectly affected our country also. They are:

##### **i. Food production, food security and intensification**

Improving food security is a challenge which is not simply about producing more food, as many of causes of food insecurity relates to insufficient access to available food, insufficient economic development outside agriculture, bad governance, detrimental trade relations, debt crisis, inadequate functioning of agriculture institution, etc (Leeuwis, 2004). The population of the country is growing and to feed the growing population the intensification of agriculture is needed.

##### **ii. Globalization and market liberalization**

Nepal has become the 147 member of World Trade Organization (WTO) on 23 April, 2004. Since under developing country like Nepal cannot compete with developed countries in the international markets in terms of production, quality and exports. So, people have impression that globalization is going to make rich countries richer and poor countries poorer. However, it is a fact that globalization will expose the farming communities of less developed countries to both risks and opportunities. Similarly, market liberalization has made an opening of markets all over the world, so that the goods can move freely between countries. Consequently, subsistence farmers are affected due to the less competitiveness.

### **iii. Poverty reduction**

Poverty reduction, which has been targeted with greater ambition (49 to 14 percent within 20 years) by Agriculture Prospective Plan (APP) of the country, is a high challenge for extension sector.

### **iv. Devolution**

Agricultural extension programs in districts have been already devolved to local units under decentralization concept. Devolution sounds very well in principle, but implementation seems difficult because of several gaps in terms of procedures.

### **v. Cyber Extension**

Information technology is a power that could be harnessed by extension organizations, farmer's organizations, cooperatives and other grass root level units. Cyber extension could minimize the problem of face to face contacts and transportation barriers being faced.

#### **2.3.2.4 Existing organizational set up of agricultural extension in Nepal**

Ministry of Agriculture Development (MOAD) is a national level organization responsible for the overall development of agricultural sector by making a national plan, policy and strategy for agricultural sector with a board based sustainable agriculture development.

Department of Agriculture is one of the branches of MOAD. The department is responsible for crop and fisheries sectors development through extension services. Under the department there are different Program Directorates like Agricultural Extension; Agriculture Training; Crop development; Fruit development; Vegetable development, Fisheries development; Market development; Economic development and statistics; Plant protection and industrial entomology which are assigned to provide agricultural support service to the concerned disciplines. They give directives to regional and districts offices.

Five regional directorates are established at different regions to facilitate coordination, supervision and monitoring and technical support to the district agriculture development offices. In addition of this, regional training centers and laboratories (Soil, seed and pathology) are performing their mandatory work.

The District Agriculture Development Office (DADO) is responsible for the extension services to the farmers in the district level. DADOs are established in 75 district of the country. Agriculture Service Centers (ASC) are the field extension office of the

DADO. The DADO gives extension services to the farmers in group approach. The Agriculture farmers groups are formed by ASC in field level. The ASC is in all DADOs are conducting the ASC level training.

## **2.4 Sources of Information used by farmers**

Sources of information play a major role in the agricultural commercialization process. Communication sources are important stimuli to the individual in the adoption of improved agro-practices. As information is generated in the process of innovation implementation and spreads gradually among the potential adopters, the number of adopters will increase. Individual's differences in adoption rate are explained by differences in information gathering behaviour and interpretation of the information. There are many sources from which people may get or seek information about the technological changes in farming. The preference and selectivity for a particular source may vary with the stages of adoption (Cock, 2005).

## **2.5 Review of Previous Study**

Subedi *et al* (2000) reported that women have lower education levels, lower access to information sources and limited participation in agricultural training. The overall division of labor, access to and control of inputs, resources and benefits from productive and reproductive labor are determined by custom, tradition and religious beliefs. All these place women at a disadvantage, making them submissive or subordinate. However, women farmers are exclusively involved in seed selection, storage, management and processing.

Women farmer's importance in Nepalese agriculture is not only because of enormous volume of work they carry out but also because a variety of agricultural activities come under their prime responsibility (Joshi and Koirala, 2005). Nepalese agriculture is becoming feminized, as suggested by the increases in the female proportion of labor force recorded in the successive census as 30.4 percent in 1971, 36.4 percent in 1981 and 45 percent in 1991 (Acharya, 1994). In Nepal, 72.8 percent population of active women are engaged in agricultural work and categorized as farm worker whereas only 60.1 percent of active men are engaged in this sector (CBS, 2001). The participation of women in the agricultural labor force is estimated at 52 to 82 percent (WFDD, 2000).

Women play a critical role in food production, post harvest activities, livestock and increasingly in cash cropping. Their daily routine starts with cock-a-doodle- doo of cockerel to mid night (Pant, 2002). They have important role in several farming decisions and implementation. But in most of the cases, women farmers receive second hand information from their male members, who generally participate in agriculture trainings and other agriculture capacity building activities. If women receive information through their husband they feel difficulty to understand and irrelevant to their need. It was estimated that women getting second hand information is 69 percent of the cases (GEED, 2000). For providing first hand information about agriculture technologies and management, government prioritize women participation in such agricultural activities. But in practice, it has not materialized; its outcome is not satisfactory (MOAC, 2007).

In hills of Nepal, usually men are the household heads as well as decision maker while women contribute valuable inputs. Although the whole process of decision making in the household is complex, men are culturally accepted as being the decision maker in the household. Gender differentiation in decision-making varies with ethnicity, economic status, and farm size. Bajracharya (1994) observes that poor women have a strong decision making role as compared to economically better off women. Some researchers have found that women make more decisions than men with regard to crop production activities. It has been reported that women make more decisions on crop selection, seed selection, use and amount of manure, time of weeding, time of harvesting, methods of storage, crop yields and grain to be consumed, and crop processing (Acharya and Bennett, 1981).

Sources of information play a major role in the agricultural commercialization process. Communication sources are important stimuli to the individual in the adoption of improved agro-practices. As information is generated in the process of innovation implementation and spreads gradually among the potential adopters, the number of adopters will increase. Individual's differences in adoption rate are explained by differences in information gathering behaviour and interpretation of the information (Cock, 2005). There are many sources from which people may get or seek information about the technological changes in farming. Farmers were found using different type of sources to receive marketing information. Among the different sources, the most important (92.2 percent) was friends/traders. The radio was found in the second position and telephone call was in the third position followed by the

newspaper and notice board respectively (Karki, 2002). Similarly, maximum sources of information for the use of improved seeds, chemical fertilizers, pesticides and agricultural tools were from friends, neighbours and relatives (Upreti, *et al.*, 1992).

Extension services in the developing countries reflect the erroneous assumption that farm managers and decision makers are men who will pass information on to their wives if they need it. Agricultural extension services are not adequately reaching to the rural women. For the most, extension policies do not specifically identify women as an integral part of the target audience (FAO, 1997).

Participatory approach is often taken as a learner-centred approach helping learners to take a greater control over their lives by developing their skills in problem solving (Srinivasan, 1993). The learner taken as the farmer in this case learns from his /her past experience. Therefore the focus by the extension workers on the learners is to help farmers to develop their abilities, skills to diagnose and solve their own problems.

Through participatory methods, groups can learn together, can be involved actively in discussion, and visualize the analytical process of identifying cause, effects whether actual objects drawn on the ground or paper helps to visualize the discussion especially when working with illiterate group of people. The indigenous knowledge of farmers and scientific knowledge of scientists or facilitators or extension workers can be gained by interaction with one other (Naika and Siddaramacah, 2006). The effective extension work can be achieved with active participation of the farmers themselves. It also helps the extension organizations to get an insight into the activities, constraints and resources of the local people. The participatory approach enhances direct feedback from the farmers to researcher and extension worker. The feedback of the farmers plays an important role in shaping human practices (Leeuwis, 2004).

The Tenth Plan (2002-2007) intended to have 40 percent women's participation in the agricultural programs. The Ninth Five-year Plan and Tenth five year plan are more explicit than the previous plans in integrating women's issues in the development process (Joshi and Koirala, 2005). Besides, other women specific empowerment programs, these plans talks of enhancing the accessibility of women farmers to agricultural extension services. The National Agriculture Policy (2004) directed to increase women participation in government agriculture extension programs by 50%.

Food and Agriculture Organization (FAO), 1997 states some of the obstacles to women's participation which extremely access low to training, which are as follows:

**a) Attitudes and Assumptions**

Extension personnel generally share the commonly held attitudes of society that women do not contribute significantly to agriculture, but are mainly concerned with household responsibilities. It is often assumed that men are the heads of the households and that they will pass on agricultural information to their wives and other women in the household. The fact is that a growing number of rural households are headed by women and that even where men are household heads, they may not transfer information to women, sometimes because it is not relevant to the agricultural work that women are doing.

**b) Practical Constraints**

Extension services and personnel may not be aware of the practical constraints facing women farmers, such as lack of time due to their household responsibilities in addition to farming; timing of extension services and demonstrations which conflict with women's tasks; restricted mobility for cultural reasons, lack of money for transport, or inability to leave their children, which may prevent women attending training.

**c) Lack of Female Extensionists**

In many societies, contact between men and women are restricted and, since the great majority of extension workers are male, women farmers may not have access to them.

**d) Lack of Appropriate Training Materials**

Extension training courses and curricula seldom deal with the role of women in agriculture or approaches for working with women farmers. A large part of the rural population women face special obstacles like heavy labour inputs prevent them for taking parts in group meeting / training. Cultural restrictions also prevail against appearing or speaking at open meetings and training.

A number of approaches and interventions have been identified to increase women's participation in both extension and training. While these are being implemented in various places, they need to become more widely accepted and applied if women are to have equal opportunities to access and benefit from agricultural training and extension. According to FAO 1997, these include:



**a) Data Collection and Awareness Building on Women's Contributions to Agriculture and Food Security**

The growing collection and dissemination of gender-disaggregated data are contributing to an increasing knowledge and awareness of the important contributions of women to agricultural production and food security. Other measures contributing to this awareness are gender analysis and gender sensitivity training of development policy makers, planners and agents.

**b) Reorientation of Extension and Research Policies and Priorities**

Greater knowledge of women's key roles in agriculture can help persuade agricultural development policy makers and planners of the need to reorient extension policies and priorities to include the needs of women food producers and of landless farmers. Mandates and guidelines are needed to implement this, as well as monitoring and evaluation mechanisms.

**c) Improving the Linkages Between Extension and Research**

Gender-responsive extension services can channel information to research institutes on the needs of women farmers, and gender-responsive research institutes can channel gender appropriate information and technologies to farmers through extension services.

**d) Training Extensions to Involve Women in Extension Services**

Both men and women extensionists need training on how to work with women farmers and promote their participation in extension work. Some of the efforts being made are: training extensionists on gender issues and how to carry out gender analysis; the preparation of specific instructional materials on improving extension work with rural women to be used in special training courses and/or inserted into the curriculum of extension courses and training institutes; and developing training materials appropriate for women.

**e) Training Women as Extensionists**

Girls and women need to be encouraged to train as extension workers. Some efforts in this direction are the provision of special training courses for women farmers, and the reorientation of home economics curricula to emphasize the needs of women in agricultural production.

## 2.6 Conceptual Framework

We know the fact that still the women farmers are facing problems in the field of agriculture in getting opportunity in social context. Here the researcher of the study had drawn the following conceptual framework for the purpose of investigating in the field to acquire the factual data. Access and opportunity of women farmers in agriculture extension activities (training) is still a major challenging issue for the female in modern context.

### Independent variables

### Dependent Variables

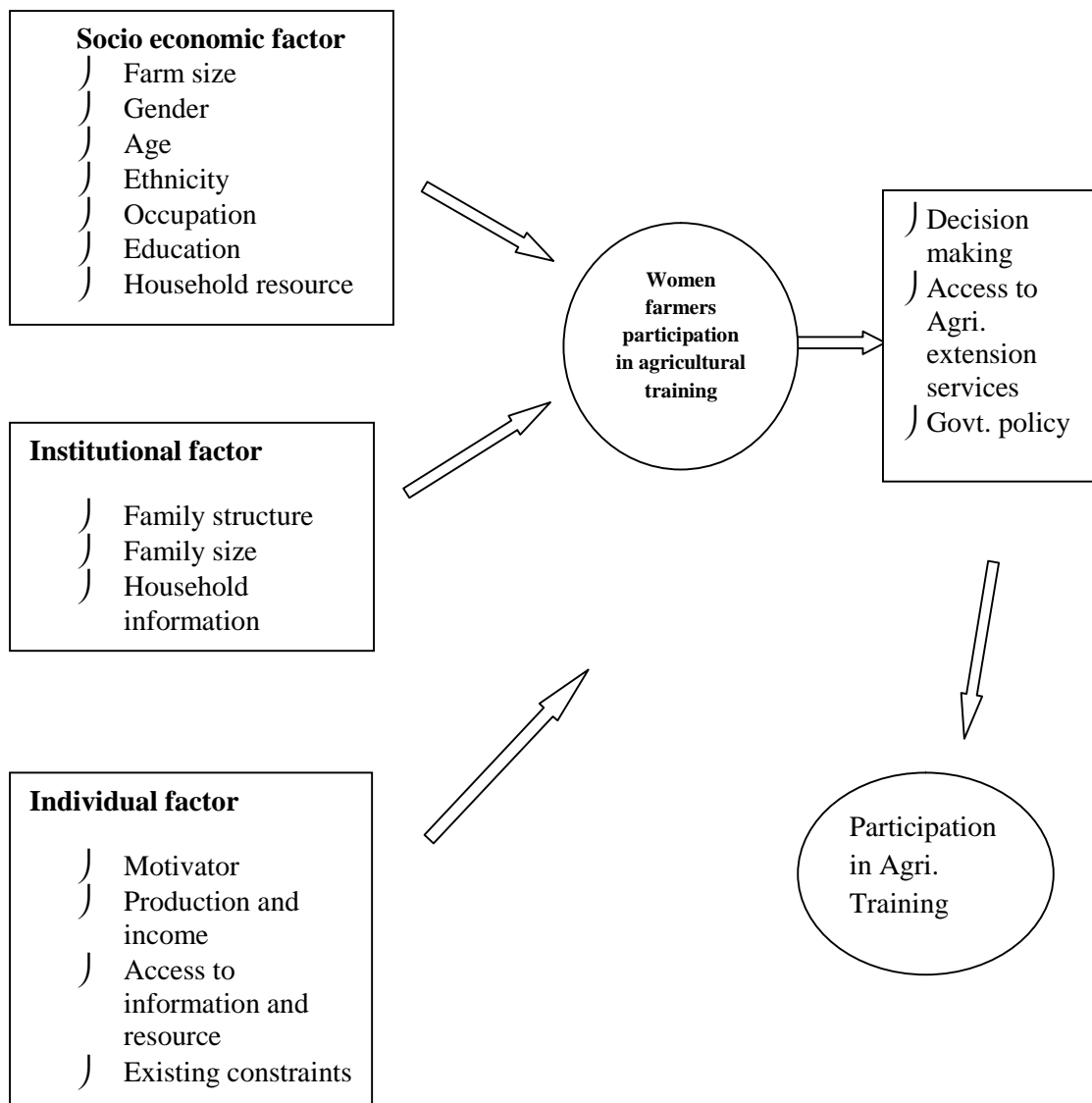


Figure 2.1. Conceptual frame work showing independent and dependent output variables in women farmers' participation in agricultural training.

Figure 2.1 is the conceptual framework drawn to understand the present condition of women farmers and their status in participating agriculture training. It has been looked from the two dimensions as; why the women farmers did not get chance to participate in agriculture training and equal access to benefit, resources and opportunities and what is the existing context in regard to the gender issues in agriculture. Participation issues in agriculture development are the areas of concern at national, regional and district levels of the country. Unless the women farmers are empowered, they cannot have decision making power on the activities of agricultural production and marketing; their social and economic status may not be improved. For this, it is necessary to increase women participation in training programs on improved agriculture technology friendly to women. Women, as large agricultural producers, still remain invisible and unsupported. Hence improving and strengthening the participation of women farmers in agriculture training will help to increase the knowledge, skills which enhances vital path to increase the efficiency of the women farmers.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Rationale of the Selection of the Study Site**

Participation issues in agriculture development are the areas of concern at national, regional and district levels of the country. Agriculture in Nepal is not only the mainstay of its economy but also as a way of life of the rural people. Agricultural training is the one of the major components of agricultural extension service system of Nepal to educate and motivate the farmers about application of scientific research and new knowledge to agricultural practices for agricultural development of the country. Gender role in farming is one of the important factors. Unless the women farmers are empowered, they cannot have decision making power on the activities of agricultural production and marketing; their social and economic status may not be improved. For this, it is necessary to increase women participation in training programs on improved agriculture technology friendly to women. Women, as large agricultural producers, still remain invisible and unsupported. Hence improving and strengthening the participation of women farmers in agriculture training will help to increase the knowledge, skills which enhances vital path to increase the efficiency of the women farmers. Considering these facts, the researcher has keen interest to find out the participation status of women farmers in agriculture training, role in decision making in group activities, constraints of women farmer to participate in agriculture training and measures to overcome such constraints. In addition to this, the researcher has long experience of agriculture training in farmers' group approach, work experience in women farmers in remote high hill district (Mustang) of Nepal. Such type of study has not been conducted in that area. It is essential to find out the participation status and role of women farmers in agricultural training to support gender sensitive agricultural extension program.

#### **3.2 Research design**

The major emphasis in this study is to analyze and explore the condition of women farmers involved in farming. It has set objective to analyze the participation status and role played by women farmers in group activities, decision making, and constraints of participation in training by women farmers and methods to overcome

them, this study tries to explore the perception of women farmers in their present situation. Considering all these facts, both exploratory and descriptive research design was chosen. Exploratory research design had been used to understand the women farmer's perception about agriculture training, participation and decision making in group. Descriptive research design had been used to describe overall condition of women in the agriculture sector. The information collected from the fields was analyzed, described and conclusion was drawn. So it is descriptive. On the other hand, some new facts were discovered during the course of research.

### **3.3 Nature and Source of Data**

In this research, both the primary and secondary data was used. For this, primary and secondary sources were used to collect the data and information. But the primary data and information were more extensively utilized as the main source of this study. Emphasis had been stressed more on both quantitative and qualitative data. Quantitative data had been collected mainly from the interview schedule and qualitative data from focus group discussion and in case study method. Some secondary data and information had also been collected from different published and unpublished sources; such as journals, books, articles, district profile, internet etc. as per the requirement to the research.

### **3.4 Universe and Population**

The pocket areas for vegetable, apple and potato as identified by the DADO, Mustang ( Kagbeni, Jomsom, Marpha, Tukuche, Kobang and Lete ) was universe and the active eight farmers group of pocket areas was the population for this study.

### **3.5 Sample Size and Sampling Procedure**

The eight farmers groups (four women farmers group and four mixed group) from 20 farmers' group of pocket areas were selected purposively where there was commercial production of vegetables, potato and apple. In these groups, DADO's intensive and frequent programs were implemented. Six female farmers from each group were selected randomly by simple random sampling method. Therefore a total of 48 women farmers were selected as respondent for the study purpose. The selected VDCs were based on the discussion with District agriculture Development Office, Mustang, Nepal. Name list of farmers group and group members from DADO was taken as sampling frame.

### **3.6 Pre-testing of Questionnaire Schedule**

A questionnaire schedule was developed in order to guide the survey and obtain reliable data from the respondents in the structured way. The questionnaires were developed according to the research objectives. The semi structured questionnaire was pre-tested in the similar location of the study site. Altogether 10 respondents were selected. With their reply and suggestions slight modification in the questionnaire was done in terms of units used, use of simple and easy words, and order of the questions. It was done for the efficient and effective questionnaire preparation. The pre-tested interview schedule was administered to farmers to collect primary data.

### **3.7 Validity and Reliability**

The validity of the research work was maintained by consulting with supervisor, experts and concerned persons. Extra emphasis has been given to maintain the objective of the research data and avoid data error by comparing them with different data collected from different sources. Likewise, reliability of the data had been ensured by the careful planning of the question in interview schedule.

### **3.8 Ethics of the study**

The moral code or value is given due consideration during data collection and interpretation of the data. The respondents are not forced to give information and the data and its interpretation is based on what respondents actually answered and there is nothing manipulation in this research.

### **3.9 Tools and Techniques of Primary Data Collection**

#### **i. Interview Schedule**

Primary data were collected through interview schedule. Before filling questionnaires, instructions were made for surveyor about filling questionnaires. All together, 48 questionnaires were used for survey (48 women farmer respondents).

The information on existing production system and various aspects of farming was collected. Information about access to and control over household resources, agricultural information and extension services was also collected from the farmers. A questionnaire schedule was developed in order to guide the survey and obtain reliable data from the respondents in the structured way. The questionnaires were developed

according to the research objectives. It comprised of both open-ended and close-ended questionnaires.

In open-ended questionnaires, respondents were asked to provide their own answer. In close-ended questionnaires respondents were asked to select the answer from the list provided by the interviewers in interview schedule.

#### **ii. Key Informants Interview**

Some key informants who have sound knowledge and experience about group approach, gender relation, gender role in agriculture, participatory approach of agricultural training etc. were selected purposively to collect the required information. The Chief of DADO, Extension officer, ASC chief, male farmers from mixed groups and leader (male and female) farmers were taken as key informant.

#### **iii. Focus Group discussion**

Focus group discussion was conducted about different aspects of participation and gender role, access to and control over resources, access to opportunities, decision making to collect the information from selected farmers involved in group activities

#### **iv. Field observation**

The selected farmers groups and their crop field was observed to know the field situation to gather some information which could not obtained from other data collection methods.

#### **v. Case study**

To record the condition of women farmers involved in farming, their status in group, role in decision making, involvement in training, this technique had been used. Likewise, other in-depth data were collected through this technique. A checklist was prepared to guide the interview. Selection of key informants was fully purposive.

### **3.10 Sources of Secondary Data**

Some secondary data were used in this study. Secondary data means data that are already available i.e. they refer to the data which have already been collected and analyzed by someone else. Information on demographic, socio economic condition, biophysical conditions and the existing practices of farming of the study sites were collected through review of records, reports and journals of GO and NGOs. Further, different published and unpublished sources will also be used for the review. The related secondary data were gathered from the Agriculture Service Centre (ASC), District Agriculture Development Office (DADO), Central Bureau of Statistics (CBS), Ministry of Agriculture Development (MOAD), some NGO/INGOs working in the

study site and in the national and international conditions. Different journal, research report, published and unpublished papers were also used to collect secondary data.

### 3.11 Methods of Data Presentation and Analysis

After the completion of field work, collected information was processed and analyzed using simple statistical tools such as frequency counts, percent, graphs, pie-chart, table and using graphical interpretations by using excel software. Appropriate statistical tools and figures were used for comprehensible presentation and interpretation. Qualitative data were classified and analyzed descriptively. The interpretation of data was based on the perspective/perception of respondents. Social inclusion perspective and the gender equality were followed to interpret the finding of the research on the basis of reviewed literature.

Table 3.1 Selected farmers groups for study

| S.N | Name of Group                                | Address   | Estd. date | Type of Group | Total members |      |       |
|-----|--|-----------|------------|---------------|---------------|------|-------|
|     |  |           |            |               | Female        | Male | Total |
| 1.  | Dhaulagiri Aalu Utpadak Mahila Krisak Samuha | Lete-4,5  | 2064/11/27 | Female        | 17            | -    | 17    |
| 2.  | Dhaulagiri Mahila Krisak Samuha              | Kowang    | 2068/3/29  | Female        | 21            | -    | 21    |
| 3.  | Tukuche Tarkari Utpadak Mahila Krisak Samuha | Tukuche   | 2066/11/29 | Female        | 21            | -    | 21    |
| 4.  | Chhairi Krisak Samuha                        | Marpha-9  | 2067/5/5   | Mixed         | 9             | 16   | 25    |
| 5.  | Krishna Gandaki Krisak Samuha                | Jomsom-8  | 2067/9/14  | Mixed         | 8             | 14   | 22    |
| 6.  | Gharapjhong Krisak Samuha                    | Jomsom-2  | 2067/10/16 | Mixed         | 7             | 11   | 18    |
| 7.  | Kagbeni Mahila Krisak Samuha                 | Kagbeni-7 | 2067/8/25  | Female        | 14            | -    | 14    |
| 8.  | Dhakarjung Krisak Samuha                     | Kagbeni-2 | 2067/8/27  | Mixed         | 11            | 16   | 27    |
|     | Total  |           |            |               | 108           | 57   | 165   |



## **CHAPTER FOUR**

### **GEOGRAPHY, DEMOGRAPHY AND SOCIO-ECONOMIC CONDITION OF STUDY AREA AND RESPONDENTS**

This chapter consists of the general introduction of the study area i.e. Mustang District including its physical and demographic profile and socio-economic status of respondents.

#### **4.1 Location of the Study**

The research was conducted in Mustang district of Nepal. Mustang district is one of the high hill districts of western development region of Nepal. It is one among four districts of Dhaulagiri Zone. It lies in between 28° 20' to 29° 05' north altitude and 83° 30' to 84° 15' east longitude. It is situated in north side of Annapurna mountain chain and known as the district across the mountain. This district lies in between two high mountains of Dhaulagiri and Nilgiri. The total area of the district is about 3639.58 sq km and the average elevation ranges from 1372 meters to 8167 meters (Dhaulagiri Mountain) above the mean sea level. It is bordered by Manang district in the east, Dolpa district in the West, Tibet of China in the north and Myagdi district in the south. Temperature ranges from minimum of minus nine degree Celsius in the winter season to maximum of 26 degree Celsius during summer season. This district is a rain shadow district because very few i.e. only about 184 mm of rainfall occurs during rainy season. It is 87 Km far from Baglung, 75 Km far from Beni (Myagdi District) and 96 Km far from Kusma (Parbat District). Very popular religious places like Muktinath and Damodarkunda are situated in this district. The district is divided into three climatic areas of Cold temperate climate, Alpine climate and Tundra climate. Main characteristic of the district is snow fall for about 4-6 months (mainly during Mangsir to Fagun) and continuous flow of high velocity wind from south to north except in the morning hours during Baisakh to Kartik and continuous flow of high velocity wind from north to south during Mangsir to Chaitra.

The study area for the research was the pocket areas as identified by DADO, Mustang for vegetables, apple and potato cultivation in the district. Muktinath, Kagbeni, Jomsom, Marpha, Tukuche and Kobang VDCs were selected purposively for the study as these VDCs are pocket areas for the commercial cultivation of

vegetables, apples and potato in the district. The map of the district with its study VDCs are presented in the Annex-2. Tables 4.1 to 4.7 below describe the general situation of the study District.

**Table 4.1 Situation of population in Mustang district**

| S.N. | Description                         | Numbers                  |
|------|-------------------------------------|--------------------------|
| 1.   | Total population                    | 13452                    |
| 2.   | Total Male population               | 7093 (52.73%)            |
| 3.   | Total Female population             | 6359 (47.27%)            |
| 4.   | Total Households                    | 3354                     |
| 5.   | Average family size                 | 4.01                     |
| 6.   | Population density                  | 3.7 per square kilometer |
| 7.   | Annual population growth rate       | -0.47%                   |
| 8.   | Population dependent on agriculture | 11500                    |
| 9.   | Total farmers family/household      | 3187                     |

Source: *Annual Report, DADO Mustang, 2013.*

**Table 4.2 Population distribution according to religion**

| S.N. | Religion  | Household (Percent) |
|------|-----------|---------------------|
| 1.   | Hindu     | 9                   |
| 2.   | Buddha    | 90.8                |
| 3.   | Muslim    | 0                   |
| 4.   | Christian | 0.2                 |
| 5.   | Others    | 0                   |
|      | Total     | 100                 |

Source: *District Development Plan, DDC, Mustang, 2013.*

**Table 4.3 Main occupation of the population in Mustang District**

| S.N. | Description     | Percent |
|------|-----------------|---------|
| 1.   | Agriculture     | 85.5    |
| 2.   | Non-agriculture | 14.5    |

Source: *DDC Mustang report, 2013.*

**Table 4.4 Population distribution according to Ethnicity**

| S.N. | Ethnicity/Ethnic Group | Percent |
|------|------------------------|---------|
| 1.   | Gurung                 | 59.3    |
| 2.   | Thakali                | 24.5    |
| 3.   | Dalit                  | 8.2     |
| 4.   | Magar                  | 3.1     |
| 5.   | Bista(Gurung)          | 2.9     |
| 6.   | Others                 | 2.1     |
|      | Total                  | 100     |

Source: *District Development Plan, DDC, Mustang, 2013.*

**Table 4.5 Situation of land utilization in Mustang district**

| S.N. | land utilization pattern   | Area(Ha.) | Remarks |
|------|----------------------------|-----------|---------|
| 1.   | Total area of the district | 363958    | 100%    |
| 2.   | Total cultivable land      | 3661.77   | 1%      |
| 3.   | Total cultivated land      | 2915      | 0.8%    |
| 4.   | Uncultivated land          | 746.95    | 0.2%    |
| 5.   | Irrigated land             | 2499      | 85.73%  |
| 6.   | Un irrigated Bari land     | 415.82    | 14.27%  |
| 7.   | Pasture land               | 147679    | 40.58%  |
| 8.   | Forest area                | 12324     | 3.38%   |
| 9.   | Snow covered area          | 30591     | 8.40%   |
| 10.  | Rocky area                 | 150573    | 41.40%  |
| 11.  | Lake                       | 92        | 0.02%   |
| 12.  | Residential area           | 320       | 0.08%   |
| 13.  | Others(sandy areas/Bagar)  | 18717     | 5.14%   |

Source: *Annual Report, DADO Mustang, 2013.*

**Table 4.6 VDC wise area, population and number of households in sample VDCs**

| S.N. | Name of VDC | Male population | Female Population | Total Population | No. of Households | Area (Sq.Km) |
|------|-------------|-----------------|-------------------|------------------|-------------------|--------------|
| 1.   | Kagbeni     | 461             | 476               | 937              | 274               | 283.7        |
| 2.   | Jomsom      | 702             | 668               | 1370             | 430               | 185.2        |
| 3.   | Marpha      | 839             | 712               | 1551             | 414               | 93           |
| 4.   | Kobang      | 378             | 349               | 727              | 198               | 80.1         |
| 5.   | Tukuche     | 366             | 377               | 743              | 206               | 122.4        |
| 6.   | Lete        | 441             | 398               | 839              | 222               | 49.8         |

Source: *Annual Report, DADO Mustang, 2013.*

**Table 4.7 Farmers Group status in Mustang District**

| S.N. | Type of Group | No. of Groups | Total Members |        |       |
|------|---------------|---------------|---------------|--------|-------|
|      |               |               | Male          | Female | Total |
| 1.   | Female Group  | 4             | -             | 93     | 93    |
| 2.   | Mixed Group   | 47            | 644           | 295    | 939   |
| 3.   | Total         | 51            | 644           | 388    | 1032  |

Source: *Annual Report, DADO Mustang, 2013.*

## 4.2 Demographic Profile of Respondents

### 4.2.1 Age and Sex

Sex is the biological difference between women and men. It is universal, obvious, and permanent and can not be changed under normal circumstances. All the respondents (48) were female farmers and was taken from women and mixed Agriculture farmer's groups. Age structure refers to the breakdown of the population into various age groups; based on the field survey 2013, the age structure of the respondent shows heavy concentration in 30-40 years. The age of the respondents ranges from 22 years to 70 years. The average age of the respondents was found as 35 and majorities were from 30 to 40 years. This finding indicated that the farmers' groups have young members.

**Table 4.8 Age structure of respondents**

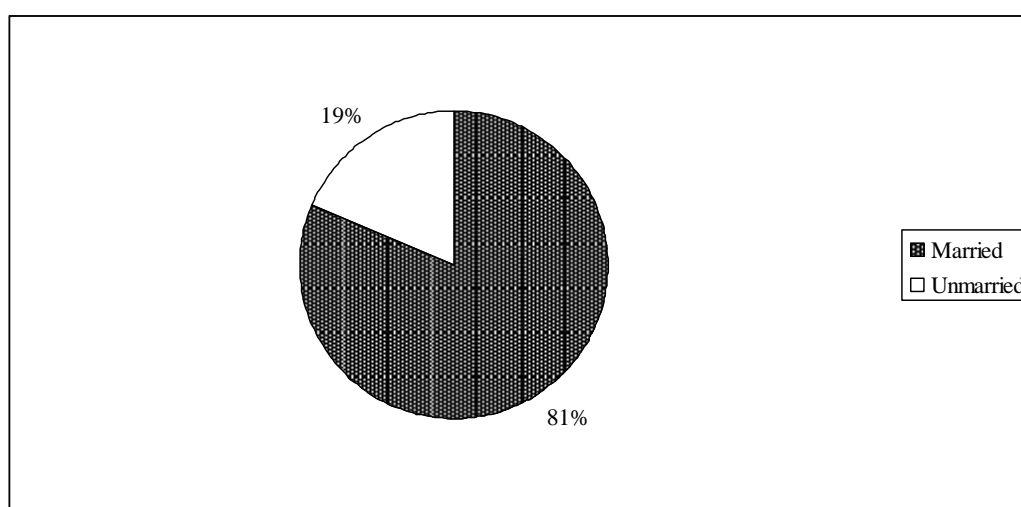
| Age group   | Frequency (%) |
|-------------|---------------|
| 20-30 years | 11(22.9)      |
| 30-40 years | 27(56.25)     |
| 40-50 years | 7(14.6)       |
| 50-60 years | 2(4.1)        |
| >60 years   | 1(2.1)        |
| Total       | 48(100)       |

*Source: Field survey, 2013/2014*

#### **4.2.2 Marital status**

Marriage is a socially approved sexual and economic union between a man and a woman that is presumed to be more or less permanent, and that subsumes reciprocal rights and obligations between two spouses and between spouses and their children.

Majority of respondents 39(81.25%) were married and only few 9(18.75%) of the respondents were found unmarried. This indicated that the involvement in agriculture was found more of married women.



**Figure 4.1 Marital status of the respondents**

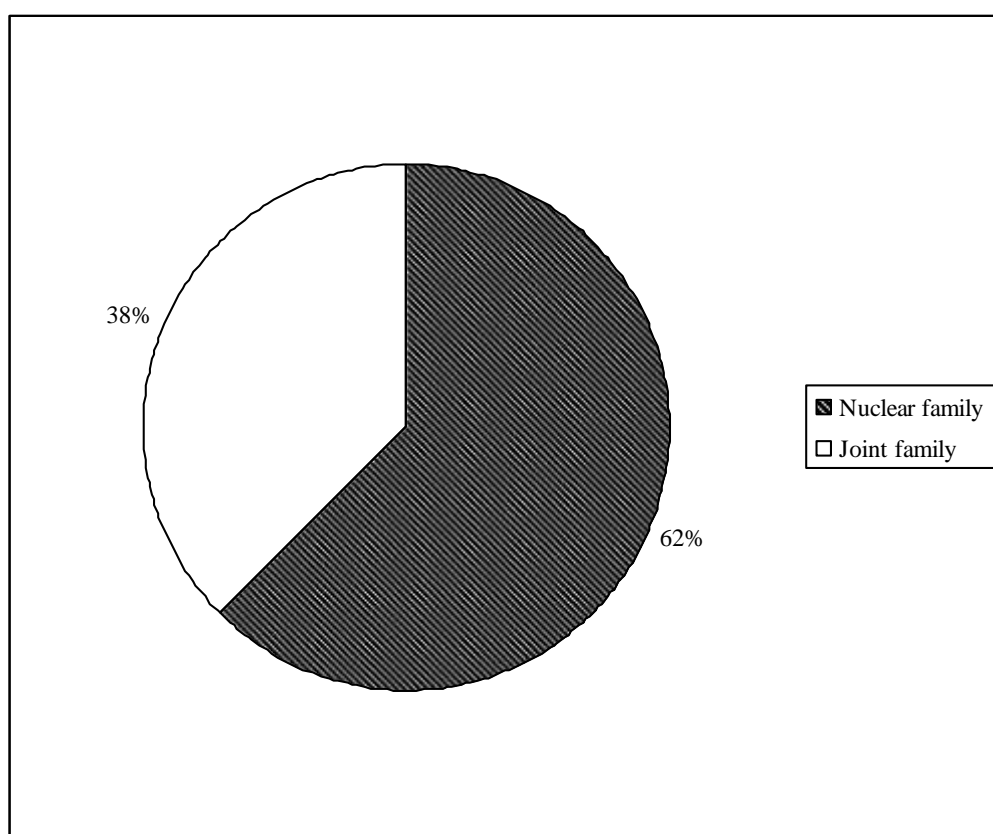
#### **4.2.3 Family Size**

In the country like Nepal, a developing and religiously guided society, size of the family is believed to be one of the most important factors that determine the social status of a group or family in the society. The family size of the respondents ranges from 3 to 9. The average family size was 4.04 which is relatively large as compared to

the district average of 4.01 and smaller as compared to the national average of 4.88 (DADO, 2013 and CBS 2012).

#### 4.2.4 Types of Family

A family is a socially authorized grouping of people united by kinship (relations) who generally share common residence (house) and interact according to well defined social roles created by common culture. It was found that 30 (62.5%) respondents have nuclear family and 18 respondents have joint family.



**Figure 4.2 Types of family of respondents**

#### 4.2.5 Education

Education is the sign of development. Education plays an important role in the overall economic as well as social upliftment in the life of people. Education has been regarded as a vehicle of change and development. However in Nepal, due to traditional values and belief system prevalent in society, less number of women are able to get access of education. Table 4.9 shows that majority (33.3%) of the respondents were illiterate. 14(29.2%) were literate who were below School Living

Certificate (SLC) education. 10(20.8%) were SLC and 8(16.7%) respondent were found above SLC.

**Table 4.9 Level of education of respondents in study area**

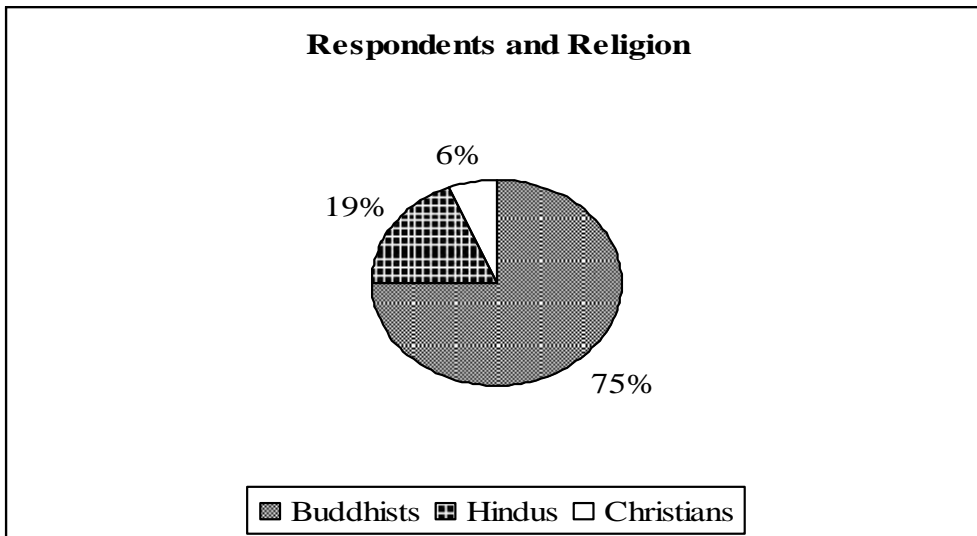
| S.N. | Level of education | Number of respondents (%) |
|------|--------------------|---------------------------|
| 1.   | Illiterate         | 16 (33.3)                 |
| 2.   | Literate           | 14 (29.2)                 |
| 3.   | SLC                | 10 (20.8 )                |
| 3.   | Above SLC          | 8 (16.7)                  |
|      | Total              | 48(100)                   |

*Source: Field survey 2013/2014*

In the Mustang district the average literacy rate is 74.25 % in which female are 69.45 % and male are 79.25 %. It total, 66.7% respondents are literate and above. This data is slightly lower than the district literacy rate of women. It might be due to more involvement of illiterate women in agriculture sector. In the national level 65.9% are literate. Among them 75.1% is male and 57.4% is female (CBS, 2012). The data shows that rate of female in education is low than male. The rate of education influences in accepting and adopting the knowledge and skill into actions.

#### **4.2.6 Religion**

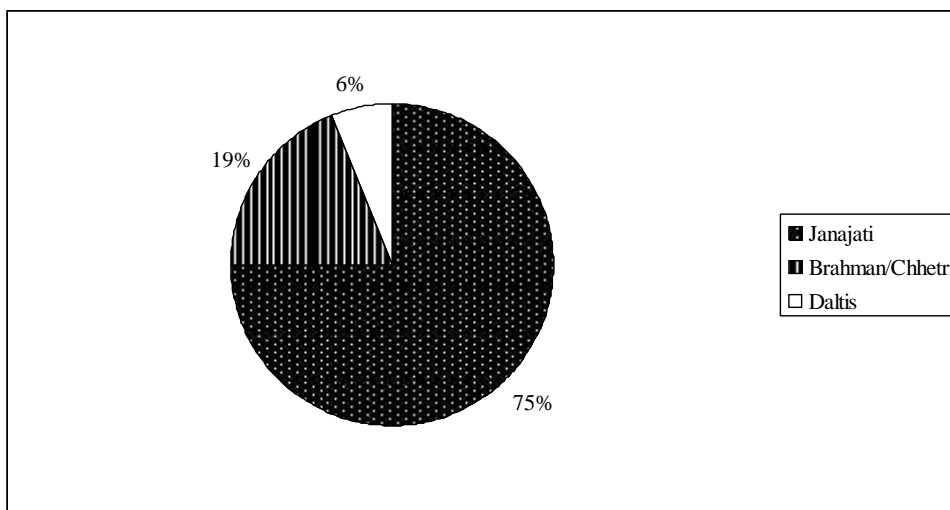
Religion is the belief in spiritual beings. Religion is a unified system of belief and practices relative to sacred things. From the figure 4.3 it was found that majority of the respondents 36(75%) in study area were found Buddhists, 9(19%) are Hindu and 3(6%) are Christians. The national data of religion is 81.3% Hindus, 9% Buddhists and 1.4% Christians. It study district, there was domination of Buddhist over Hindu.



**Figure 4.3 Situation of religion of respondents in study area of Mustang district**

#### 4.2.7 Caste and Ethnicity

Caste and ethnicity of the respondents was found same as that of religion. Out of total respondents, 36 were indigenous people known as *Janajati*, 9 were *Bramins* and *Chhetri* who are called upper caste, 3 were *Dalits* who are called lower caste respectively. *Dalit* had less membership in groups. It indicates that the *Dalits* have comparatively low access of knowledge and information as compared to *Janajati*, *Bramin* and *Chhetri*.



**Figure 4.4 Ethnicity of respondents in study area**



#### 4.2.8 Head of the Household

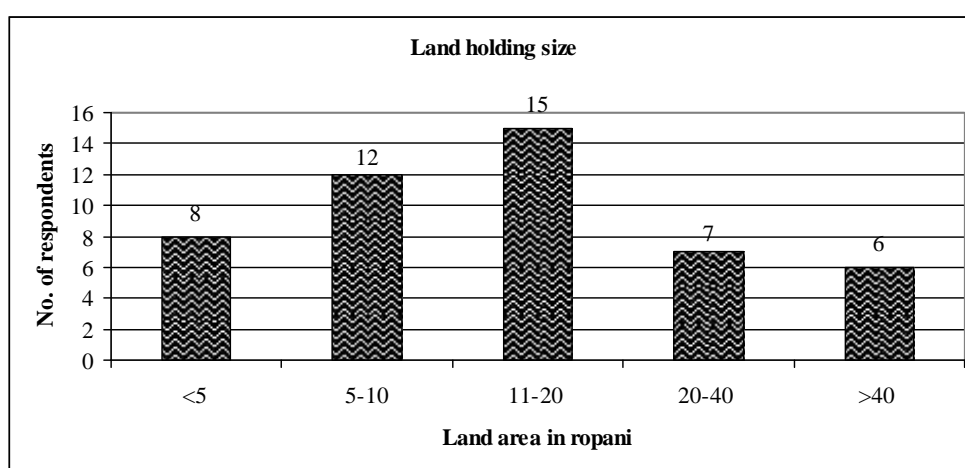
Head of household in our society is generally that person who has the power to make decision, control over economy and guides the family member in various aspects of socio cultural and economic aspects. In the study, it was found that 25% female were household head while 75% household head are male.

### 4.3 Economic condition of respondent

In Nepal, poverty is commonly associated with land holding size, occupation and ownership of house and land. In this study, the land holding size, major occupation, income source, food sufficiency, total annual income, labor role and control over income are taken as economic indicators.

#### 4.3.1 Land Holding Size

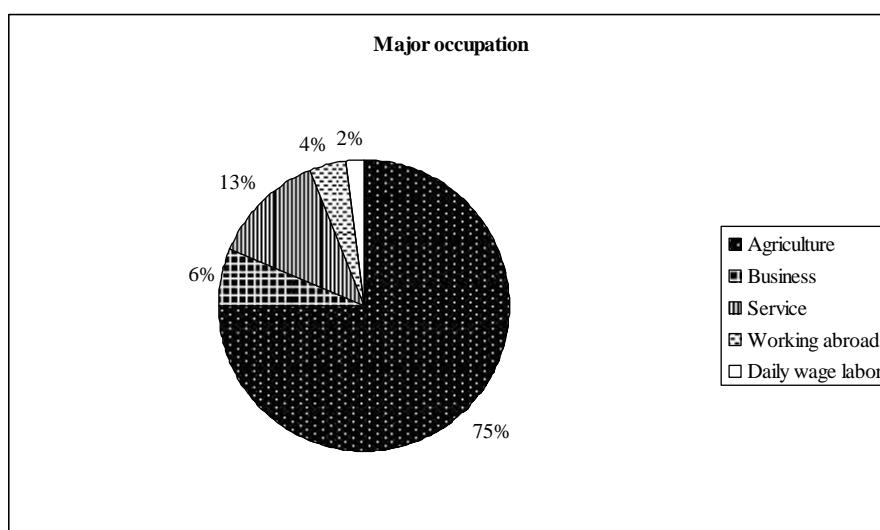
The average land holding of the respondents was found 0.6 ha which is more than national average land holding 0.4 ha (CBS, 2012). The land holding size varies from 1 to 95 ropani. Majority of the respondents have less than 20 ropani land. The result indicates that majorities of the farmers were small land holder's families. It is difficult for the farmers to go to commercialization, mechanization and diversification. The distribution of land holding size of respondents is presented in figure- 4.5



**Figure 4.5 Land holding size of the respondents in study area of Mustang district**

### 4.3.2 Major Occupation

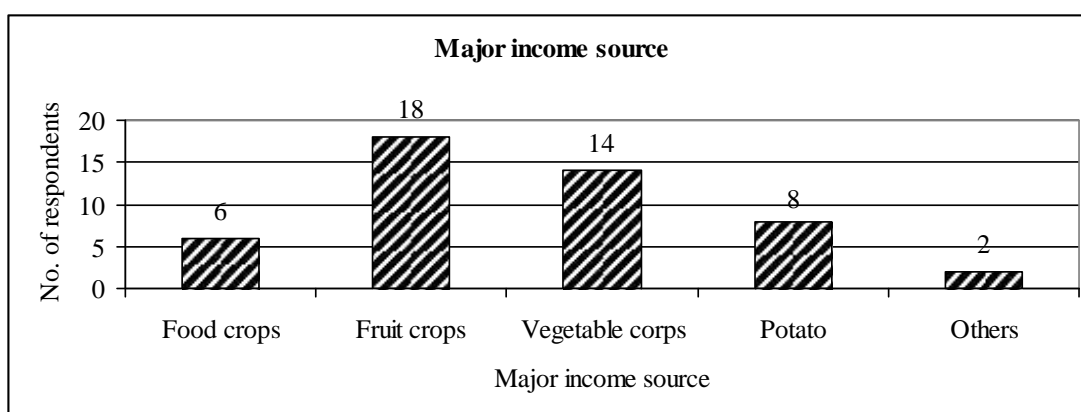
Historically, women have been practicing the domestic or the household work as a tradition of the custom, so the researcher investigated about the occupation distribution of the study population. Majorities (70%) of the respondents have agriculture as their major occupation and only 30% respondents have major occupation other than agriculture. This indicates that the study area is dominant of farming family. Figure 4.6 shows the detail about the major occupation of the respondents.



**Figure 4.6 Major occupations of respondents in Mustang district**

### 4.3.3 Major Income Source in Agriculture

Agriculture is the major source of income in Nepalese farmers. 65.6% of the people in Nepal depend on agriculture for income generation and livelihood. In agriculture also, there are different sector of agriculture from which farmers get income. Source of income means the source of earning money. There are different source of earning money in the study area. Fruit (apple and walnut), and vegetables (cauliflower, cabbage, radish, carrot, rayo) production are major source of income of respondents. The figure 4.7 indicates the major source of income from different sector of agriculture.



**Figure 4.7 Major income sources of respondents in agriculture sector**

#### 4.3.4 Food Sufficiency Period from Own Production

Food sufficiency is considered as one of the indicator of economic well being in Nepalese society. It is the indicator of food security also. Mustang is high hill and remote district. Rice is grown rarely due to low temperature. Major food crops are wheat, buckwheat, maize, barley and potato. Majorities 18(40%) of respondents have food sufficiency less than three months and only very few have food sufficiency more than six months. It might be due to very less cultivable land (only 1% land of the total district area). Total food requirement of the district is 2703 and the current availability is only 1705 mt. This showed 990 mt food deficits in the district (DADO, 2013). The research data follows the trend of the total district food sufficiency data. Three respondents did not give their response on this topic. Table 4.10 shows the detail of food sufficiency period in study area.

**Table 4.10 Food sufficiency period form own production in Mustang district**

| Food Sufficiency period(months) | Respondents N=45(%) |
|---------------------------------|---------------------|
| < 3                             | 18(40)              |
| 3-6                             | 11(24.5)            |
| 6-9                             | 8(17.7)             |
| 9-12                            | 6(13.3)             |
| > 12                            | 2(4.4)              |
| Total                           | 45(100)             |

*Source: Field survey 2013/2014*

#### 4.3.5 Total annual income

Total income is major factor which determines the socio-economic status of people in Nepalese society. Level of income also determines the ability to invest in education, better nutrition, health and higher status in the society. The result of this study indicates that large portion of the respondents (30%) have the total annual income less than Rs. 50,000. It might be due to small scale farmer and low production of agricultural crops. The respondents having more than Rs. 200000 annual income are big farmers having big apple orchard and who works abroad. Eight respondents did not want to give information on this topic. The detail is presented in table 4.11 below.

**Table 4.11 Total annual income of farmer respondents in Mustang district**

| Total annual income (Rs.) | Respondents N=40(%) |
|---------------------------|---------------------|
| < 50000                   | 12(30)              |
| 50000-75000               | 8(20)               |
| 75000-100000              | 6(15)               |
| 100000-200000             | 6(15)               |
| >200000                   | 8(20)               |
| Total                     | 40(100)             |

*Source: Field survey 2013/2014*

#### 4.3.6 Labor Role in Agriculture

Agriculture is labor intensive in the study area due to small and fragmented land and lack of farm mechanization. Likewise vegetable cultivation is also labor intensive work. Table 4.12 shows that in majorities (52%) of respondent's household, involvement of female in agriculture labor is more compared to male (16.7%).

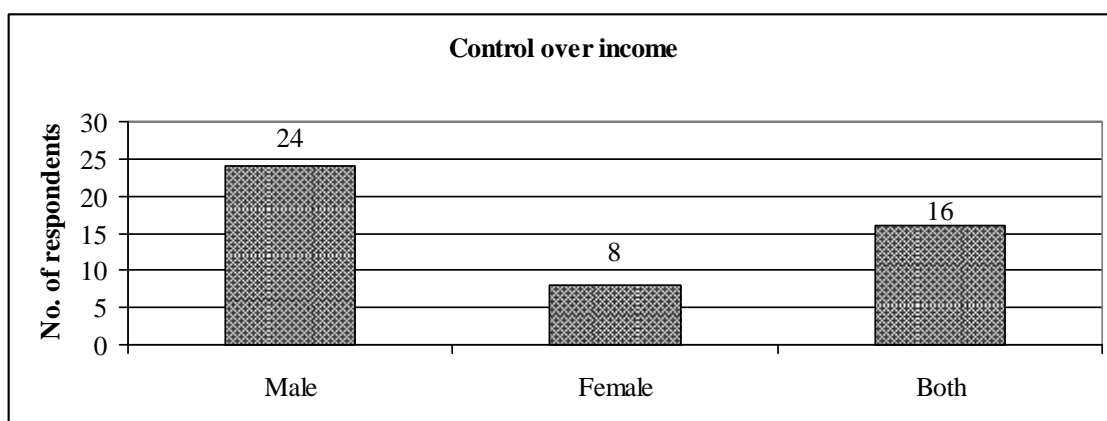
**Table 4.12 Situation of labor role in agriculture**

| Share of labor in agriculture | Respondents N=48(%) |
|-------------------------------|---------------------|
| More male                     | 8(16.7)             |
| More female                   | 25(52.0)            |
| Equal                         | 15(31.3)            |
| Total                         | 48(100)             |

*Source: Field survey 2013/2014*

#### 4.7.7 Control Over of Income from Agriculture

Control over income shows the power to use money for various purposes in the family. In Nepalese society, even women are involved more in income generating activities in farm, the income is predominantly controlled by men. Figure 4.8 clearly indicated that in 50% respondents, income from agriculture is controlled by male. Control over income from agriculture by women is very few (16.6%). In 33.3% respondents, control over income from mutual understanding and negotiation.



**Figure 4.8 Control over income from agriculture in Mustang district**

#### 4.3.8 Ownership in House and land

In Nepalese society, ownership of house and land is mainly on male. In majorities (83.3%) of household, the ownership of house and land is on male and only very few (16.7%) household, female also have ownership on house and land. The national data of Nepal shows 19.71% ownership of women in house and land (CBS, 2012).

**Table 4.13 Ownership of male and female on land and house in Mustang district**

| Ownership in house and land | Number of respondents N=48(%) |
|-----------------------------|-------------------------------|
| Male                        | 40(83.3)                      |
| Female                      | 8(16.7)                       |
| Total                       | 48(100)                       |

*Source: Field survey 2013/2014*

#### **Box 4. 1 Case Study1. Success Story of Aangya Gurung**

Aangya Gurung is a leader women farmer of Kagbeni VDC-7, Mustang. She is 35 years old and her education is under SLC. She has 6 members in her family including her husband, mother in law, two daughters and one son. She is working as a farmer since 10 years. Earlier she was a general member and due to her role in group and motivation to other farmers, now she became secretary of Kagbeni Mahila Krisak Samuha. She is also a member of saving and credit group. She has 18 ropani of land for cultivation. The ownership of land and house is on the name of her husband. The major crops in her field are cabbage, cauliflower, rayo and potato. She produced these vegetable and marketed to district headquarter Jomsom. She earns about more than Rs. 100000 annually by selling vegetable s and potato. Her husband also actively involves in farming and helps her in farm and selling of products. She participated in three days training organized by District Agriculture Development Office and one day training organized by Agriculture Service Center Kagbeni. She knew about the training from extension workers of Kagbeni ASC. During the discussion, she told that she gained a lot of technical matter about vegetable cultivation and applied the learned knowledge and skill to produce different vegetables in her farm. She said that her husband encourage her to participate in agriculture training about seasonal and off season vegetable cultivation and support her to care their children, helps her in sheep farming. She has good access and control over income from agriculture. She said the she is satisfied from her occupation and want to encourage other women to involve in vegetable farming by utilizing knowledge and skill gained from agriculture training. For improving the participation of women farmer in agriculture training, she said that the attitude and culture of society to view women should be changed and family member especially husband should support her wife in household activities. Likewise, in farmers group, women farmers should be empowered and give priority to participate in training. Extension workers should consider the constraints of women farmers, make programs that can address the problems of women farmers and their demand, should conduct on the spot training in farming areas and monitoring and follow up training should be conducted for social and economic development of women farmers as well as whole society.

## CHAPTER FIVE

### FARMERS' GROUP, DECISION MAKING, PARTICIPATION STATUS AND CONSTRAINTS OF PARTICIPATION IN TRAINING

#### 5.1 Farmers Group

Extension and training services are carried out in the district through group approach and the farmers participated in groups to take these services through the extension organization with extension workers. Women members in mixed farmers group were found to be in few numbers as compared to men in mixed farmers group (Table 3.1). The name of the respondents is given in Annex-4. Among the farmers respondents 35.6% of the respondent stated that the reasons for joining the women and mixed farmers groups was to increase family income, working together collectively (14.3%), gain access to extension services (33.3%) such as financial services from groups, co-operatives and bank, know and help each other socially and become self reliance. When farmers express their interest to form group and extension workers facilitate group formation process, such type of self-emerged groups are more effective and sustainable for service delivery. However, groups were also formed to get access to the extension services from the DADO. Champala and Shingi 1997 (cited in Adhikari 2004) reported that government policies are understood in an over simplified way by rural communities that unless they are organized into co-operatives or associations or groups, they will not get government subsidies, credit and technical services. As a result groups that are formed with these objectives are not sustainable. It was found that 10 (19.6%) of farmers groups were formed by initiations of extension workers. Formations of such types of groups are highly dependent upon organization, unless there is follow up and material support, the sustainability of group is questionable. Group formed by self initiation of farmers in Mustang district, have comparatively higher savings than others and those groups were moving their activities towards formation of Co-operatives (DADO, 2012).

Formation of farmers group should be given high priority on self-initiation by stimulating farmers and making them to know about importance of group by encouraging farmers. Extension should be focused on empowerment of farmers and making them capable to make their own decision rather than being dependent upon

extension worker (Van den Ban and Hawkins, 1996). This could be one of the reasons for disintegration of formed group.

The majority 34(70.8%) of the farmers respondents were member of other groups than agriculture for the benefits like saving and getting loan in low interest for their household activity. The interest rates of banks are higher as compared to the group welfare fund and farmers' co-operative fund. The group savings serve as an important cohesive factor of group members (CATC, 2002). The proper utilization of group welfare fund for buying, inputs, like seedlings, fertilizers, saplings, pesticides helps the group members to improve the agriculture farming practices.

### **5.1.1 Reasons of Joining Group by Farmers**

The table 5.1 indicates majority 35.6% of women join the group to increase family income and 33.3% women join group to gain access to extension services. The reason was poverty of the farmers in the study area. There are 25.16 % of the people in Nepal who are below poverty line (CBS, 2012). Also, DADO delivers its services in group approach since 1992. Six respondents did not answer this topic. Department of Agriculture also focuses and promotes to form farmers group by DADO to increase efficiency of extension services in the district through farmers' group approach.

Majority 34 (70.8%) of the women farmers members were found multiple group membership of other groups (Saving credit, forest users groups, IPM group, mother group and other NGO based groups). Most of the women participating in group were saving credit groups. The saving credit groups helped the women farmers to save the money and take the loan at low interest rate in their house hold activity and agriculture. The majority 36 (75%) of respondents mentioned that agriculture group was formed by initiation of both extension workers and farmers. The majority of the group activities are fund collection and mobilization, regular monthly meeting and vegetable farming. However, study found that the multi-group intervention by same organization or other organizations has created confusion about approaching group approach. Because most of organizations have formed groups under different name by involving same members who are already involved in DADO's group. They were launching same activities but providing more incentives than DADO to gain popularity within short span of time. In the 4 mixed farmers groups , majority of the members were male farmers and female farmers were depended on male members for group activities such as; loan taking, decision making etc. All the groups are active



but sole women groups were found more active than the mixed group. The eight groups (four women groups and four mixed groups) had large group members (ranging from 14 to 27 members). The name of groups and its members are presented in Annex-4. In mixed group, the women farmer members are 38% and 62% are male member. The two groups Dhaulagiri Mahila Krisak Samuha and Krishna Gandaki Krisak Samuha were in the process of upgrading into co-operative. The target of DADO is also to boost up small groups into co-operative (DADO, 2012). The groups also receives regular extension services like demonstrations, minikits, trainings, field trips and tours to other places organized by the DADO.

**Table 5.1 Reason of joining group by women farmers**

| <b>Reason of joining group by women farmers Respondents</b> | <b>Respondents N=42(%)</b> |
|---|----------------------------|
| Working together collectively                               | 6(14.3)                    |
| To increase family income                                   | 15(35.6)                   |
| Gain access to extension services                           | 14(33.3)                   |
| Help each other socially                                    | 4(9.5)                     |
| Self reliance   | 3(7.1)                     |
| Total   | 42(100)                    |

*Source: Field survey 2013/2014*

### 5.1.2 Benefits of Being Member in Farmers Group

The benefits of being in group identified by women group members are stated in the following table 5.2

**Table 5.2 Women farmers' benefits of being member in agriculture group**

| <b>Benefits of being in agriculture group</b>          | <b>Respondents N=48(%)</b> |
|--|----------------------------|
| Sharing ideas  | 4(8.3)                     |
| Acquiring new knowledge and skill                      | 8(16.6)                    |
| Working collectively and overcoming the labor shortage | 5(10.4)                    |
| Increasing family income                               | 16(33.3)                   |
| Accessing services such as training and demonstration  | 10(20.8)                   |
| Getting loan in cheaper interest rate                  | 5(10.4)                    |
| Total  | 48(100)                    |

*Source: Field survey 2013/2014*

Extension workers also reported that there is a benefit for farmers for group formation. It can be known that women farmers get benefits being in groups. The farmers share ideas and information among themselves in group. The improvements of communication among group members helps to improved and strengthen groups. It also helps to bind the group members and serves as some sort of incentives to its members for effective participation in group activities. If members don't get benefit from group, group may become inactive. Extension workers mentioned there is benefit for the DADO to form groups. The DADO is benefited by giving extension service to the large farming community, cost effective and efficiency in delivery of agriculture extension services.

The table indicates that majority farmer respondents were in the agriculture groups for increasing family income (33.3%) and accessing services such as training and demonstration (20.8%).

#### **Box 5.1 SADO's view about women in farmers group**

"Farmers' groups are increasing year by year and it is empowering the women members of group. Women farmer's groups are comparatively more active than mixed farmers group." Senior Agriculture Development Officer (SADO) Mr. Rewati Raman Paudel, DADO, Mustang.

#### **5.1.3 Women Farmers Status in Group**

In four mixed group (N=24) the status of women farmer was studied. From the table 5.3, it is clear that majorities of women member in group are general member and few (33.3%) are in executive committee in farmers' group. It may sometime affect the planning and decision making process about women issues in group due to majority of executive male member.

**Table 5.3 Status of women farmer member in their group**

| Status                        | Number of respondents N=24 (%) |
|-------------------------------|--------------------------------|
| General member                | 16 (66.6)                      |
| Member of Executive committee | 8(33.3)                        |
| Total                         | 24(100)                        |

*Source: Field survey 2013/2014*

In the mixed group although men and women form or join groups for similar economic benefits, women position in society relative to that of men is different, men being traditionally dominant over women. This influences the participation of women in groups. For extension organization it means being aware of why men and women behave differently and understanding their needs and concern (Bhasin, 2000 cited in Jane). This domination is because women are dependent on men in decision making. This placed women in weaker bargaining position as compared to that of men.

#### **5.1.4 Women farmers' access to benefits, resources and opportunities in group**

In the four mixed farmer group, there was no equal access to resources and opportunities between men and women farmers. Male farmers (66.6%) are getting more access and opportunities compared to women farmers (33.3%)

**Table 5.4 Access to benefits, resources and opportunities in farmers group**

| <b>Equal access to resources and opportunities</b> | <b>Number of respondents N=24(%)</b> |
|--|--------------------------------------|
| Yes  | 8 (33.3%)                            |
| No   | 16(66.6%)                            |
| Total  | 24(100)                              |

*Source: Field survey 2013/2014*

## **5.2 Participation**

### **5.2.1 Understanding of Participation in Group and Training**

Participation is a process through which stakeholders influence and share control over development initiatives and the decision and resources which affect them (World Bank 1994 cited in Chamber 2005). In this study context, participation is the involvement of women farmers in various processes and activities in groups and trainings like decision making, sharing ideas among themselves, collaboration and interaction with extension workers.

The respondents were found to have different understanding with participation. The different understandings of participation are presented in table 5.5

**Table 5.5 Understanding of participation**

| <b>Understanding of participation</b>           | <b>Respondents N=48(%)</b> |
|---|----------------------------|
| Taking and play active role in group activities | 22 (45.8)                  |
| Just membership of group                        | 10 (20.8)                  |
| Group meeting                                   | 8 (16.6)                   |
| Sharing benefits                                | 8 (16.6)                   |

*Source: Field survey 2013/2014*

Table indicates that majorities (45.8%) of respondents understand participation as taking and play active role in group activities. This indicates majority of respondents were known to active participation in group. But in mixed group case, only 25% are known to the meaning of participation. This might be due to less access to group activities and in executive committee and due to domination of male members.

Women farmers who was closer, educated, exposed and who had regular contacts with extension worker were found to have understanding of participation. The understanding of participation is not complete unless all group members does not play role in all stages from problem identification, planning, implementation and management and decision making. The poverty and poor literacy rate, low exposure of respondents affects the understanding of participation.

**Box 5.2 Male farmer view about women farmers' participation of training**

"Participation of women in agricultural training is essential because most of them are engaged in agriculture. Training helps them to receive new technology, ideas and skill to put new technologies into action." Mr. Patha Bahadur Thakali, President of Shyalam Multipurpose Co-operative, Tukuche-1, Mustang.

**5.2.2 Participation in Decision Making in Group**

Decision making process is important variables of group dynamics. Decision making through group consensus helps to increase efficiency and effectiveness of the group activities. Regarding the decision undertaken as by the groups mentioned in table 5.6

**Table 5.6 Participation in decision making in group**

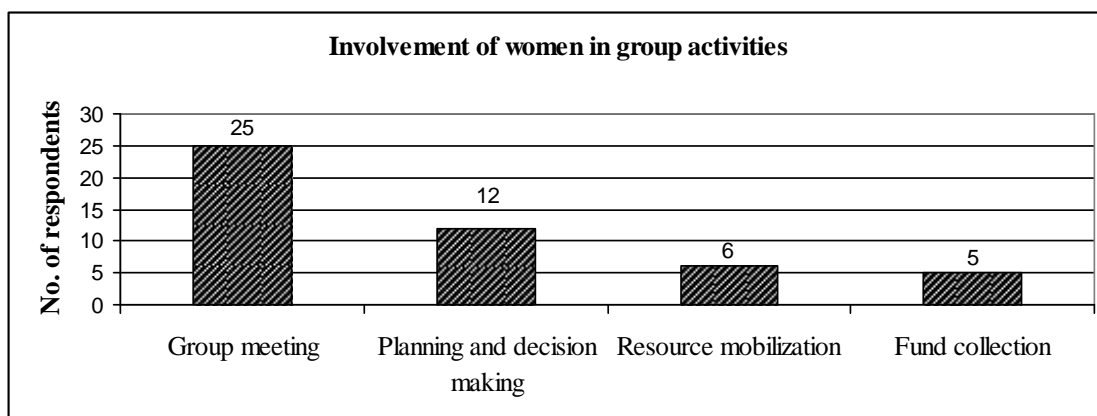
| <b>Decision making in group activities</b> | <b>Frequency N=48(%)</b> |
|--|--------------------------|
| Group president                            | 8(16.6))                 |
| All the group member discussion            | 12(25)                   |
| Leading members of group                   | 13(27)                   |
| Male members(in case of mixed group)       | 15(31.3)                 |
| Total                                      | 48(100)                  |

*Source: Field survey 2013/2014*

The table 5.6 shows that the participation of all group members during the discussion was found quite low 12(25%) and there is domination of leading member in decision making in group. In mixed groups women participation was found to be limited in decision making, planning, information sharing and benefit due to domination of men. The women members were found dependent on men for group activities. One of the group member said that they are illiterate and do not know external works and have to depend on men. The education of members was found to have influences in the group. The illiterate, old women were dependent on educated and young women members of the groups and men in mixed groups. The decision to undertake activities in group was found more (27%) by leading members and 31.5% by male members (in case of mixed group). Extension workers also stated decision making in group is influenced by leader farmer.

### **5.2.3 Participation of Women in Group Activities**

Figure 5.1 indicated that 25 (52%) of the group members were involved in meeting only during the period of decision making. They only participate in meeting but they don't have any role in decision making. Each month at least once there is a meeting of group members to discuss about the future strategies to undertake by group members. Study found that only 12(25%) of women farmers get involved in planning and decision making of group activities and fund collection were done by president, secretary and treasurer of group only. In the meeting those who are educated, socially and economically in good position in the society had influencing role.



**Figure 5.1 Involvement of women farmers in different group activities**

**Box 5.3 Case study of Pema Gurung; playing model role in her farmers group.**

Pema Gurung is a women farmer of Kagbeni VDC-2 Mustang. She is 36 years old and she only studied primary level education. She has 5 members in her family. She is working as a farmer since 15 years. She is a member of Dhakarjung Krisak Samuha. She has 10 ropani of land for cultivation in which she cultivate vegetables in two ropani (Cauliflower, Cabbage, Rayo, Potato, Radish etc). She earns about more than Rs. 50000 annually by selling vegetables. She participated in one week training on vegetable cultivation. She knew about the training from extension workers of Kagbeni ASC. During the discussion, she told that she gained a lot of technical matter about vegetable cultivation in Horticulture Farm, Marpha and applied the learned knowledge and skill to produce different vegetables in her farm. Earlier, she cultivated barley, maize, buckwheat but now a day she cultivates vegetables, potato and extended the area under apple cultivation. She said the she is satisfied from her occupation and will continue and extend area under vegetable and apple orchard. Her involvement and role in farmer group is also increased and she actively participated in group activities like planning, and decision making. She told that her husband is also impressed by her activities and support her to do household works and send her in group activities and in training without any hesitation. For improving the participation of women farmer in agriculture training, she said that women should be active and try to get right from men. In addition, women farmers should be empowered and give priority to participate in training. Agriculture extension policy should be made in favor of women issue and demand. Women should be supported from household, society and national level for economic development through agriculture.

#### 5.2.4 Preference of Participation in Types of Group

The preferences of women farmer to participate in group are shown in the table. 5.7 Majorities (45.8%) of respondents prefer to participate in women group and 25% prefer to participate in mixed group. Respondents who are in executive committee and have active role in group prefer women group and who are not in executive committee, not actively participated in group and low education and economy prefer mixed group to get support from male members in group. Study shows that respondents give lower preference for the participation in mixed caste/ethnic group of *dalits* and *janajati* in the group. However, government has led policy for inclusion of socially disadvantage group in extension service delivery (NAP, 2004).

**Table 5.7 Preference of participation by women in farmers group**

| Preference of participation in group | Number of respondent N=48 (%) |
|--------------------------------------|-------------------------------|
| Women group                          | 22(45.8)                      |
| Mixed (male and female) group        | 12(25)                        |
| Mixed caste/ethnic group             | 4(8.3)                        |
| Group in the same area               | 8(16.6)                       |
| Same age category group              | 2(4.2)                        |
| Total                                | 48(100)                       |

*Source: Field survey 2013/2014*

The majorities of the total farmer respondents prefer to participate in women groups. Women feel free and easy to take part in group activities in women groups. There is no male domination in women groups. Women can participate group in same area. They can complete household activities and participate in groups activities. The groups formed in the short distance makes them easy to go in short period of time. They can save their time for household activities. Women also prefer to participate in mixed group. They believe and trust men for doing external works. Women in rural areas prefer to be busy in household activities.

### **5.3 Service Provider**

The agriculture extension workers (JT/JTAs) are the field level service providers. They provide technical advice to the farmers groups and receive feedback from the groups. Generally they contact with members in group meetings and trainings conducted by Agriculture Service Centre (ASC). Due to the low man power in the ASC and large area to cover, it has become difficult for the extension workers to provide their services and monitoring of group activities. Generally they contact leader farmers of groups for the dissemination of agriculture information. Generally they contact groups once in a month in the group meeting and sometime to disseminate technical information. In addition to extension workers, some NGOs also provide agricultural training.

From discussion with DADO staffs and ASC staffs, it shows that number of farmers group in Mustang district are comparatively less than neighboring districts. This is because Mustang district lies in remote geographical territory and population as well as cultivated area is also lesser. It has remote VDC areas with no easy access of public transportation facilities. Being remote and inaccessible, extension workers formed fewer farmers groups. The extension workers feel difficulty to go to the inaccessible and remote places. They feel uneasy to go in remote and inaccessible places. It was found groups were formed in accessible and place near to their approach. From this, we can say that majority of rural farmers are beyond the agriculture information and communication.

The monitoring of groups and extension programs by extension worker helps to make the groups active and extension programs effective. There were very few extension workers in ASC and they have large area to cover. This indicates monitoring of groups and extension program is not sufficient. The DADO/ASC have to strengthen monitoring for field inspection and visit in groups. The monitoring after training can be effective to find out transfer of learning by the participants farmers. Likewise, the improvement and increase in the communication by the field extension workers and among the farmers in their groups can increase in making the farmers know about agricultural training. The effective communication helps to increase participation in groups, agriculture training and other agriculture services.

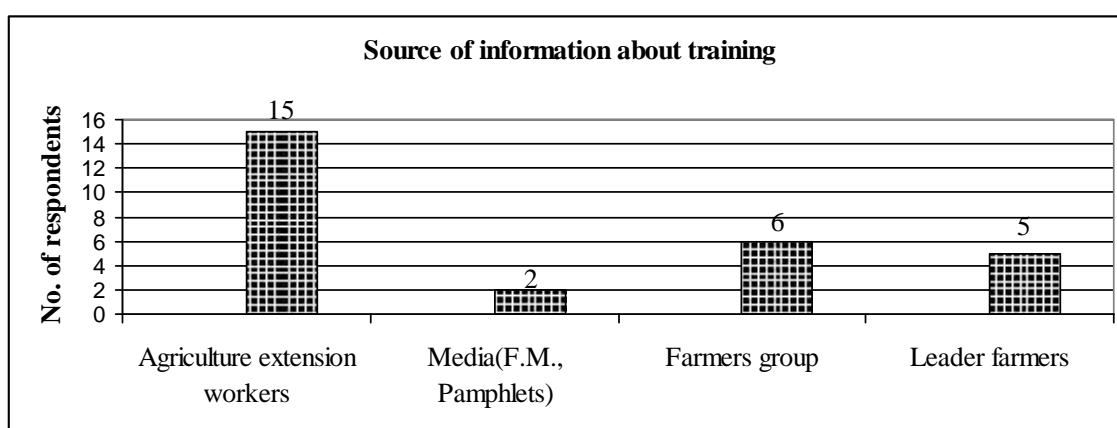


## 5.4 Agriculture Training

The agriculture training is one of the main programs of (DADO, 2012). Women farmers must be trained for building competencies in knowledge, skill and attitude in better farming and agriculture development. According to Ministry of Agriculture and Co-operative (MOAC, 2008) of Nepal, 72.8 % women are engaged in Agriculture. This indicates women farmers have to be trained for receiving knowledge, skill and attitude. Training being important program and needy program for women farmers there is low participation of women farmers in training.

### 5.4.1 Sources of Information about Agricultural Training

Among all women farmer respondents, 28 (58.3%) of them had known about ASC training. The sources of information about ASC level training to the respondents is given in figure 5.2



**Figure 5.2 Source of information about training obtained by respondents**

Above figure indicates that majority of group members 15 (53.6%) received information on ASC level agriculture training through extension workers. Likewise, 6(21.5%) members received information through group members.

### 5.4.2 Nomination of Participant for agricultural Training

In the study area, according to majorities of respondents (40%), participants for agricultural training are nominated by group discussion. But there is also influence of group president and elite group member to select the participants for training. Eight respondents did not give their response on this topic.

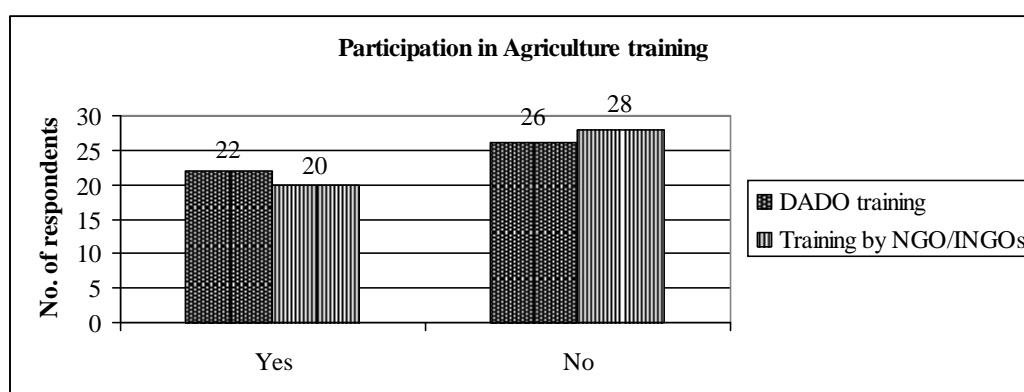
**Table 5.8 Nomination of participants for agricultural training in farmers group**

| Nomination of participants for training | Frequency N= 40(%) |
|---|--------------------|
| By president of group                   | 11(27.5)           |
| By extension staff of your area         | 5(12.5)            |
| By group discussion                     | 16(40)             |
| By elite group member                   | 8(20)              |
| Total                                   | 40(100)            |

Source: Field survey 2013/2014

### 5.4.3 Participation in Agricultural Training

In the study area, 22(45.8%) of the respondents have participated in agricultural training conducted by DADO and ASC. Likewise, 20(41.6%) of the respondents also participated in training conducted by other organization like NGO/INGOs. During study, it was found that the respondents who participated in DADO training also participated the training of NGO/INGOs. The respondents having in top position in group, having higher education and economy participated both training.

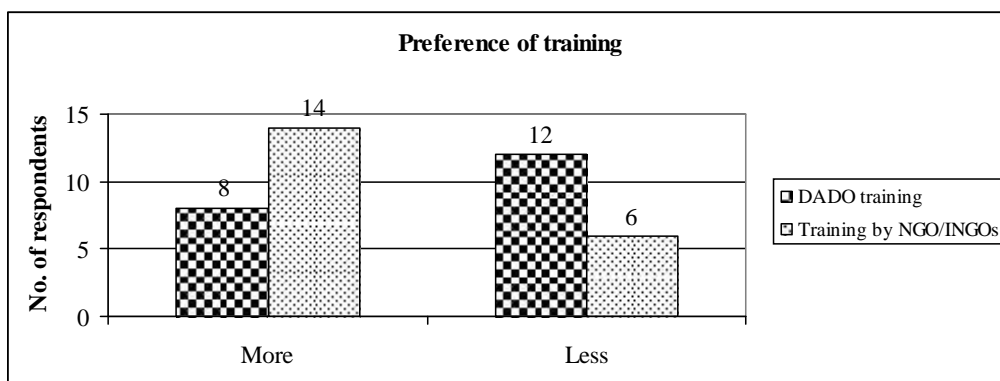


**Figure 5.3 Participation of women farmers in agricultural training**

### 5.4.4 Preference of Training Conducted by DADO and Other Organizations

During the study of respondents (N=20) who participated both the training conducted by DADO and NGOs, it was found that the training conducted by NGOs prefer more by the respondents. 14(70%) respondents prefer NGOs training more compared to the DADO training 8(40%). The more preference of NGO/INGOs training was due to more daily allowance paid and attractive training materials. Some

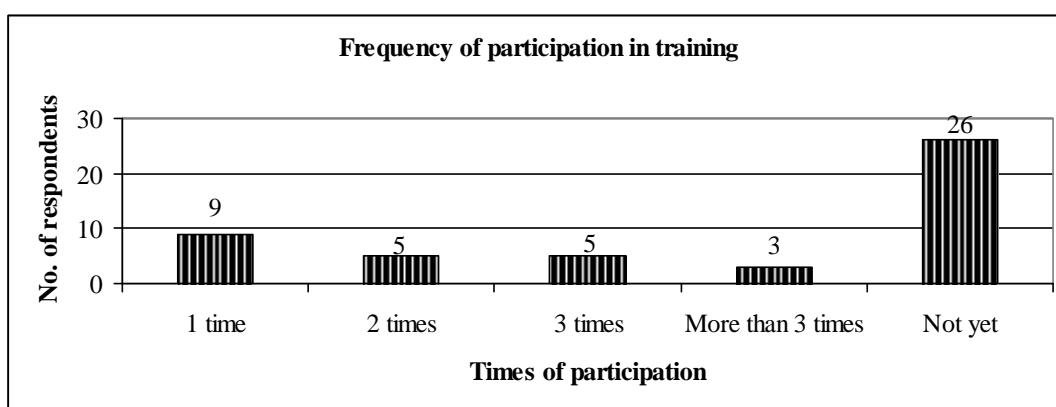
respondents said that training by DADO is continuous process and we have to express more preference to NGOs training to attract them for long time in our areas.



**Figure 5.4 Preference of training conducted by DADO and NGO/INGOs**

#### 5.4.5 Frequency of Participation in Agriculture Training

Out of 22 respondents participated in agricultural training, 9(40.9%) respondent participated only one time. Similarly 22.7% respondents participated two and three times. 13.6% respondents participated more than three times in training. Figure 5.10 shows that some participants participated repeatedly but majority 26(54.1%) did not get chance to participated even single time. The cleverer, educated and leader farmers who were near to extension workers participate in training repetitively.



**Figure 5.5 Frequency of women farmers' participation in agricultural training**

The repetition of same members to attain in different agricultural trainings should be controlled by group members and extension organization. The extension

workers should not give for the same person to participate in training frequently. The cleverer, educated, leader farmers in group sometimes do not share the information to their group members. Uneducated, old and women members in groups sometimes do not fit the criteria to participate in training. This is because DADO calls participants by mentioning the requirements of participants like in education, age and sex. The farmers groups also keep their members in waiting list. The criteria to participate in training should be made by groups themselves and extension workers in the monthly group meeting. The persons who are direct contact with extension workers should not be encouraged for frequently participation in training. This frequently participation makes other group members to get less chance in participating training.

#### 5.4.6 Training Methods Used in Training

In the agricultural training participated by the respondents (N=30), most of the trainers (46.6%) adopted one way lecture and only few classes conducted by participatory lecture with discussion. Table 5.9 indicated that there is very few practical classes and such kind of training are not liked by the respondents. 75% of the respondents like participatory lecture and practical classes as training methods in training to develop practical skill and to share each other's ideas in the training.

**Table 5.9 Training methods used in agricultural training**

| <b>Training methods</b>               | <b>Frequency N=30(%)</b> |
|---------------------------------------|--------------------------|
| One way lecture                       | 14(46.6)                 |
| Participatory lecture                 | 8(26.6)                  |
| Participatory lecture with discussion | 4(13.3)                  |
| Practical classes                     | 3(10)                    |
| Demonstration, exposure visit         | 1(3.3)                   |
| Total                                 | 30(100)                  |

*Source: Field survey 2013/2014*

There must be two way learning by farmers and extension workers for effective communication (Leeuwis, 2004). Facilitation also helps to enrich the effectiveness of training. Facilitation is learning- centered and it helps other to learn (Pretty and et al, 1995). Extension workers should adopt facilitation role for effective

participation. According to Millar and Curtis (1997), critical factors in group learning are effective facilitation, group autonomy, building on going relationships and learning opportunities. The roles of facilitators include letting farmers make their own choices about what they need, build on their own experiences and knowledge, encourage all men and women to talk, express their views and ideas, give all members an opportunity in the group to have a say and encourage a two way communication between farmers and extension workers. The facilitators also need to have skills in applying participatory methods, to enhance the learning process in groups. The indigenous knowledge of farmers and scientific knowledge of scientists or facilitators or extension workers can be gained by interaction with one other (Naika and Siddaramacah, 2006). The interactive discussion among farmers and extension workers helps to enrich the participation in trainings.

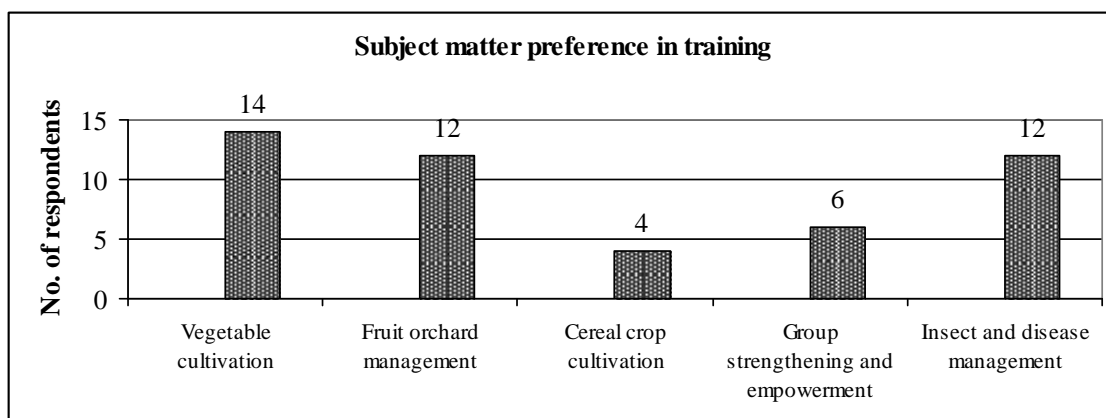
#### **Box5.4 Case study of Mina Gauchan**

Mina Gauchan is a women farmer of Marpha VDC-9, Mustang. She is 44 years old and her education is only class six. She has 4 members in her family. She is working as a farmer since 20 years. She is a member of Chhairo Krisak Samuha. She has 30 ropani of land for cultivation in which she cultivated vegetables in three ropani (Cauliflower, Cabbage, Rayo, Potato etc). She has apple orchard of about 10 ropani. She earns about more than Rs. 150000 annually by selling vegetables and apples. She participated in ASC level training on vegetable cultivation. She knew about the training from extension workers of Marpha ASC. She shared her feeling that a lot of changes in farming and cropping pattern more recently due to intervention of seasonal and off- season vegetable cultivation and expansion new apple orchard area in her locality and in whole district. She said that she learned a lot of technical matter about vegetable cultivation in Horticulture Farm, Marpha and applied the learned knowledge and skill to produce different vegetables in her farm. In her farmer group, she actively participated and encourages other women for active participation. Earlier, she cultivated barley, wheat and buckwheat but now a day she cultivates vegetables, potato and extended the area under apple cultivation. She said the she is satisfied from agriculture and will try to cultivate vegetable in more area. She sold her vegetables in district headquarter, local market and sometime exported to Pokhara (Potato, Rayo and Carrot) She told that she is happy because her husband support and encourage her

to go to training, group meeting and support to household activities and livestock rearing. In the question of how can we increase women farmer's participation and how agricultural training be effective, she gave her feedback that for improving the participation of women farmer in agriculture training, women farmers should be empowered and give priority to participate in training. Training should be organized in farmers field (on the spot training), DADO should focus on women farmers, Agriculture extension worker should understand the constraints of women farmers and their training needs, male members of group should encourage and give priority to women for participation in training and training should be more practical for effectiveness and fruitful. Women discrimination should be eradicated starting from own family, society and government should empower and strengthen women group for better participation and establishment of gender equitable society.

#### **5.4.7 Preference of Subject Matter in Agriculture Training**

Out of total respondents, 14 (29.1%) of the respondent prefer the training about vegetable cultivation. The research areas have a potential of vegetable farming (DADO, 2013). Vegetable farming is the source of income of research area. The vegetable grown is sold in the local market and also exported to other districts. DADO also has focused on vegetable farming by developing vegetable production pocket to raise the income and living standard of farmers. DADO/ASC has also initiated training of off-season vegetable farming. The training organized in the respondents' area was effective because there is more participation of women farmer. For making more participation and effective training DADO plan was to organize more on the spot training in the area. After vegetable cultivation fruit orchard management and insect and diseases management topic are preferred by the respondents. This district is famous for quality apple production and due to expansion of road/transportation facility; farmers are getting more profit from apple production. So they like such type of training topic to increase quality fruit production and get more profit.



**Figure 5.6 Preference of subject matter in training by women farmers**

#### 5.4.8 Reasons of Low Participation in Training

Among all respondents, 22 (45.8%) of the women farmers had participated in ASC and district level agriculture trainings. 26 (54.2%) had not participated in Agriculture trainings. The reasons given by the respondents about low participation in Agriculture trainings are shown in the table 5.15

**Table 5.10 Reasons of low participation of women farmers in training**

| Reasons of low participation in Agricultural training                     | Frequency<br>N=48(%) |
|---|----------------------|
| Household activities  | 25(52)               |
| Livestock rearing   | 5(10.4)              |
| Distance of training center   | 2(4.1)               |
| Clever, educated, leader members of group participate frequently          | 12(25)               |
| Because of no chance to participate( do not fit the criteria, illiteracy) | 4(8.3)               |
| Total   | 48(100)              |

*Source: Field survey 2013/2014*

The study has found that engagement in household activities was the major reason for lower participation in Agriculture training conducted by DADO/ASC. The cleverer, educated and leader farmers who were near to extension workers participate in training repetitively. Most of the cleverer, educated, leader members do not share the training information with all the group members and discuss which also effects in low participation in training. Similarly, the persons who had direct contact with extension staffs have also found more participation in training. ASC training

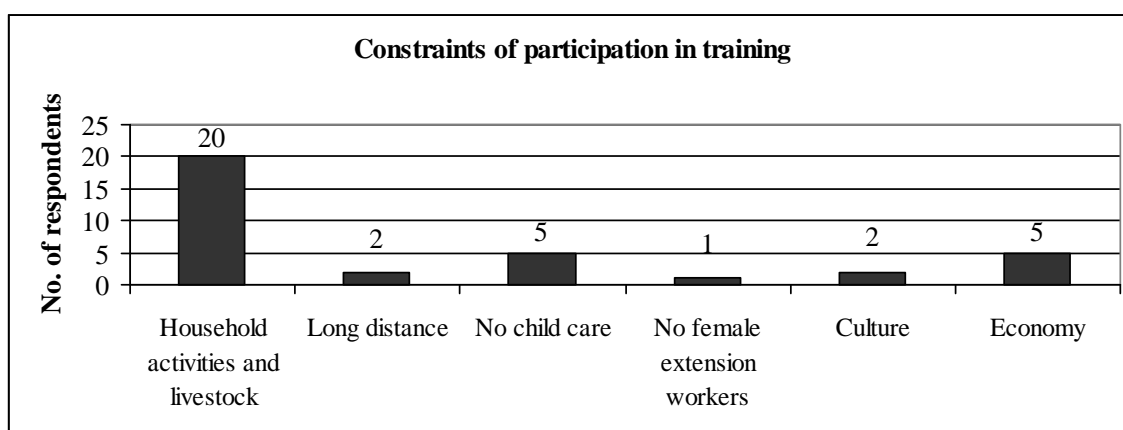
attendance record showed participation of women farmers in on the spot trainings in their area was more than 80%.

Women have almost no time to participate in extension activities because of the variety and numbers of jobs like household activities, livestock rearing, child caring etc they do in rural area (Kizilaslan, 2007). Women farmers are always busy in household activities in rural areas of Nepal. The majority of women are engaged in house hold activities. Livestock is integrated with the farming. Livestock rearing is also a burden in rural areas. If the distance of training centre is far they cannot leave their household activities, livestock, children and go to the training. Majority of the rural people are poor. For going to training they need traveling fare and food so they will not go to the training organized in far distance.

#### 5.4.9 Constraints of Participation in Training

Women have both domestic and a production role which makes them to have a bigger work load as compared to men. Women have constraints to participate in long term training outside their village due to their household obligations and traditions. Women cannot travel long distance for training due to responsibility of household task and social constraints (Adhikari, 2006). Women are usually restricted by their husbands to attain distance training and when together with men they do not feel free to participate.

Majority of the women farmer persons had faced constraints in participating agriculture training. Out of total farmer respondent 35 (73%) reported that they had constraints in participating in training. The constraints of respondent are shown in the following Figure 5.7



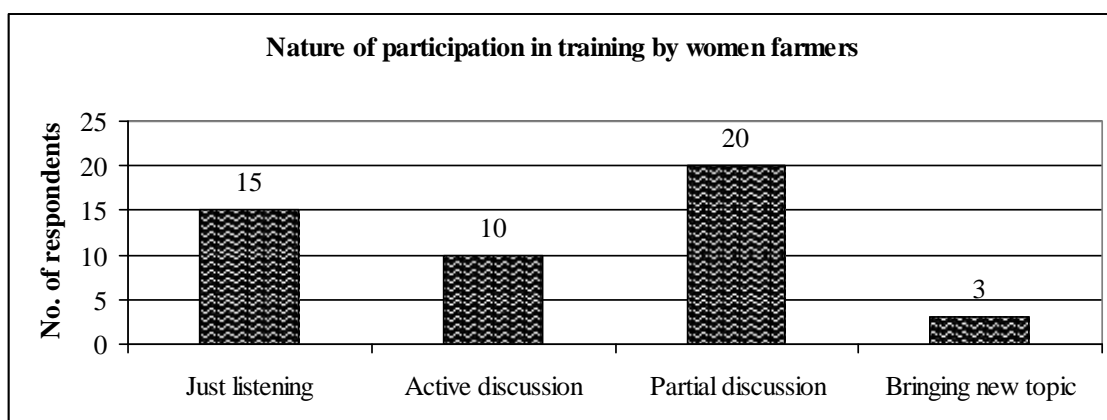
**Figure 5.7 Constraints of women farmers' participation in training**



The figure indicates 20 (57.1%) out of 35 respondents have household activities and livestock constraints. The household activities like cooking, cleaning, washing are the main activities in rural areas. Besides, livestock rearing is also the main activities done by rural women. The farming, integration with livestock is common practice in rural Nepal. Women are busy in household activities and livestock rearing. Women have also a lot of responsibility to care children and feed, clean and take them to school. The poor economic condition of the farmers made them deficit in financial condition. It was found that due to poor economic condition farmers have no bus fare and money for feeding and lodging when sometimes training are arranged in the far distance.

#### 5.4.10 Nature of Participation of Women Farmers in Training

The perception of women farmer in agriculture training about participation is presented in the figure 5.8. The figure indicates majority 20 (41.6%) of women farmers take part in partial discussion during the training rather than active discussions and topics relevant to their needs. The partial discussion (means sometimes talking with extension worker and other group members but hesitant to interact). 31.2% respondents take part in just listening the lecture. 20.8% respondents take part in active discussion to the topic relevant to their farm.



**Figure 5.8 Nature of participation of women farmers in training**

### Box 5.5 AEO's View about participatory approach and facilitation

"We have a plan to train field level extension worker (JT/JTAs) about participatory approach and facilitation, so that they can apply it during training and due to this approach, active participation of women farmers in training is achieved" Agriculture Extension Officer (AEO) Mr. Binod Ghimire, DADO Mustang.

#### 5.4.11 Production of Crops Before and After Training

From the response of 22 farmers participated in agriculture training, it was found that 15(68.2%) farmers improve and increase crop yield in their farm due to adoption of new technology received from training. Hence we can conclude that crop production can be increased and level of income of farmer can be increased by adopting new technologies like improved seed and variety of crop, disease pest management, soil, fertilizer and irrigation management.

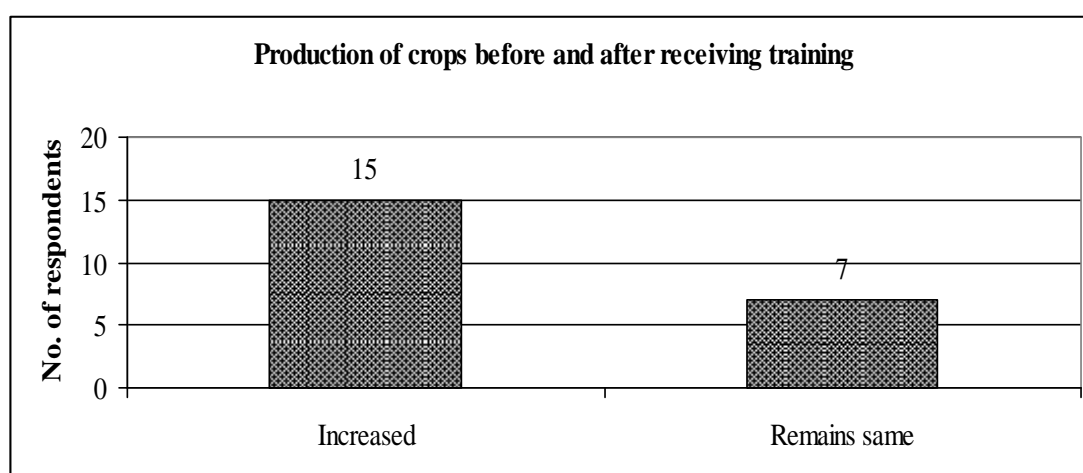


Figure 5.9 Production of crops before and after training by women farmers

#### 5.4.12 Improvement of Women Farmers' Participation in Training

Study found that majority of women farmers (58.3%) expressed their desire on arrangement of on the spot training conducted by DADO and ASC. Women participation on the spot training in women farmers' area was found high (80-90%) but their participation on the distance training was low (DADO, 2007). Following to this reason 16.6% respondent expressed their view as to give priority to women farmers for training. The reason for the demand of on the spot training are

engagement in household activities, difficulties for long distance to go to the training place, financial problem, not letting to go to distance training by their house members because of culture, etc. Strong and active group member is also important to improve women farmer participation in the training.

**Table 5.11 Improvement of women farmer participation in training**

| <b>Improvement of women farmers' participation in training</b> | <b>Frequency N=48(%)</b> |
|--|--------------------------|
| On the spot training and arrange time with women farmers       | 28(58.3)                 |
| Communication to group member and extension staffs             | 2(4.1)                   |
| Strong and active group member                                 | 6(12.5)                  |
| Relevant topic   | 2(4.1)                   |
| Good allowance   | 2(4.1)                   |
| Giving priority to women                                       | 8(16.6)                  |
| Total  | 48(100)                  |

*Source: Field survey 2013/2014*

For the improvement of women farmers' participation in training 58.3% respondents gave emphasis for on the spot training on their area and arrange time with them. 80 % women get attendance in on the spot training (DADO, 2010). From this, we can say on the spot training in the women farmers area can increase involvement of women farmers. The women farmers finish their household activities in short time and involve in training conducted nearby. Their house members also let them to go the training which is conducted in their area. Their time for going in training will also be saved because of short distance. Participants do not have to spent money for bus fare and food and lodging. Women farmers' house members will not give enough money to go to the training conducted in the other far places. Hence, on the spot training can overcome some constraints.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **7.1 Summary**

This study was carried out to assess the socio-economic condition of women farmer involved in agriculture, to analyze the participation status of women farmers in agriculture training in the group approach, to explore the role of women farmers in decision making and resource utilization in farmers group and to assess and analyze the constraints faced by women farmers in participating training and methods to overcome them. Primary data were collected through interview schedule, key informant interview, focus group discussion and case study. Review of records, research reports, different journal, published and unpublished papers were also used to collect secondary data. The primary data and information were more extensively utilized as the main source of this study. Quantitative data had been collected mainly from the interview schedule and qualitative data from focus group discussion and in case study method. Both exploratory and descriptive research design was chosen. The data obtained from research were analyzed, presented and interpreted by using simple statistical tools such as frequency counts, percent, graphs; pie-chart, table and using graphical interpretations by using excel software. The interpretation of data was based on the perception of respondents. Gender theory was followed to interpret the finding of the research on the basis of reviewed literature.

Agriculture in Nepal is not only the mainstay of its economy but also as a way of life of the rural people. Agricultural training is the one of the major components of agricultural extension service system of Nepal to educate and motive the farmers about application of scientific research and new knowledge to agricultural practices for agricultural development of the country. Gender role in farming is one of the important factors. Unless the women farmers are empowered, they cannot have decision making power on the activities of agricultural production and marketing; their social and economic status may not be improved. For this, it is necessary to increase women participation in training programs on improved agriculture technology friendly to women. Improving and strengthening the participation of women farmers in agriculture training will help to increase the knowledge, skills which enhances vital path to increase the efficiency of the women farmers. Considering these facts, the researcher has keen interest to find out the participation

status of women farmers in agriculture training, role in decision making in group activities, constraints of women farmer to participate in agriculture training and measures to overcome such constraints. Such type of study has not been conducted in that area. It is essential to find out the participation status and role of women farmers in agricultural training to support gender sensitive agricultural extension program. Therefore the research conducted research in this topic and the major findings of the study are presented as below:

### **Major findings**

- ) The finding showed that the average age of the respondents was found 35 years and majorities were from 30 to 40 years. This indicated that the farmer's groups have young members.
- ) Majorities (33.3%) of the respondents were illiterate and only 6.7% respondents were found above SLC education. It might be due to more involvement of illiterate women in agriculture sector.
- ) Most of the respondents (75%) in study area were found *janajati* and they are Buddhists. It was found that only 25% respondents were household head while 75% household head are male.
- ) 70% of the respondents have agriculture as their major occupation and only 30% respondents have major occupation other than agriculture.
- ) 40% of respondents have food sufficiency less than three months and only very few have food sufficiency more than six months.
- ) In 52% of respondent's household, involvement of female in agriculture labor is more compared to male (16.7%).
- ) In 50% respondents, income from agriculture is controlled by male. Control over income from agriculture by women is very few (16.6%). In majorities (83.3%) of household, the ownership of house and land is on male.
- ) Majorities (66.6%) of women member in mixed group are general member and few (33.3%) are in executive committee in farmers' group.
- ) From the study, it was found no equal access to resources and opportunities between men and women farmers. Male farmers (66.6%) are getting more access and opportunities compared to women farmers (33.3%).

- ) 45.8% of respondents understand participation as taking and play active role in group activities.
- ) 52% of the respondents were involved in meeting but they don't have any role in decision making. Women farmers have no active participation in training, 41% discuss partially and 31.2% just listen. Only 20.8% women participated actively in group discussion and decision making issues.
- ) 45.8% of respondents prefer to participate in women group and 25% prefer to participate in mixed group.
- ) According to majorities of respondents (40%), participants for agricultural training are nominated by group discussion. But there is also influence of group president and elite group member to select the participants for training.
- ) From the study, it was found that the training conducted by NGOs prefer more by the respondents. 70% respondents prefer NGOs training more compared to the DADO training 8(40%).
- ) Most respondents prefer the training about vegetable cultivation, fruit orchard management and insect/diseases management. So, training subject should be as per the need base and demand driven.
- ) 73% of the women farmer had faced constraints in participating agriculture training. Among different constraints, 57.1% respondents reported that household activities and livestock rearing is main constraint.
- ) 68.2% respondents improved and increased crop yield in their farm due to adoption of new technology received from training.
- ) Study found that 58.3% of the respondents suggested as feedback on arrangement of on the spot training in their area and set time with them.
- ) The reason for the demand of on the spot training are engagement in household activities, difficulties for long distance to go to the training place, financial problem, not letting to go to distance training by their house members because of culture, etc. Strong and active group member is also important to improve women farmer participation in the training.

## 7.2 Conclusion

On the basis of the above finding, it can be concluded that majority of women farmers involve in group for agricultural activities are young in age structure. Large proportions of respondents are illiterate. It indicates more involvement of illiterate women in agriculture sector. The Low literacy rate of women affects extension activities and extension workers because it make difficult to make understand and communicate to women farmers.

Large sections of the respondents have agriculture as their major occupation. This indicates that the study area is dominant of farming family. Fruits and vegetables production are major source of income of respondents. So agriculture training should focus more on cultivation and management technique of these crops.

In most respondent's household, involvement of female in agriculture labor is more compared to male but income from agriculture is controlled by male. So, the role of women farmers in agriculture should be internalized and family, society and nation should give due care for equitable control over and access to resources, benefits and opportunities in family and society.

The study shows that there is domination of leading member in decision making in group. Majorities of respondents are found only involved in group meeting but they don't have any role in decision making. Women farmers have no active participation in training, and just discuss partially and just listen. Very few women participated actively in group discussion and decision making issues. The respondents having in top position in group, having higher education and economy participated training repeatedly. So, focus should be given to increase literacy rate, empowerment and strengthening of women farmers.

Most of the respondents had faced constraints in participating agriculture training. Among different constraints, most respondents reported that household activities and livestock rearing is main constraint. Many respondents suggested as feedback on arrangement of on the spot training in their area and set time with them.

### **7.3 Recommendations**

- ) Farmers groups have advantages to extension organization while it was found difficulties for women farmers for their full participation. In this context, it is important that extension workers and the extension organization involved in agricultural development should make program planning to address the different needs of women's and men's involved in particular extension activities.
- ) It would be important that extension organization should train extension workers in the use of participatory methods. When facilitating groups and trainings, extension workers should take special care to address women as well as men covering issues and problems relevant to both.
- ) It is recommended that extension organization should recognize and understand the constraints of women farmers that hinder women participation. It is recommended that extension workers should recognized the time constraints of women and adjust training schedules to fit women's existing workloads.
- ) It is recommended that provision of on the spot training and arranges time schedules consultation with women farmers for their better participation. Keeping in mind the current trend in extension in the district which emphasized group approach, equal participation among men and women, planning and management, greater involvement of the disadvantaged groups especially women, it is extremely relevant for the extension organization to identify gaps and adopt strategies which will not only improve women participation in group and training but also lead to the success of the extension programs.

#### **7.3.1 Recommendation for the further study**

- ) The most of the women farmers are multiple group members in research area. It is desirable to further in-depth study on consequences of multiple group membership on performance and its impact on groups' productivity.



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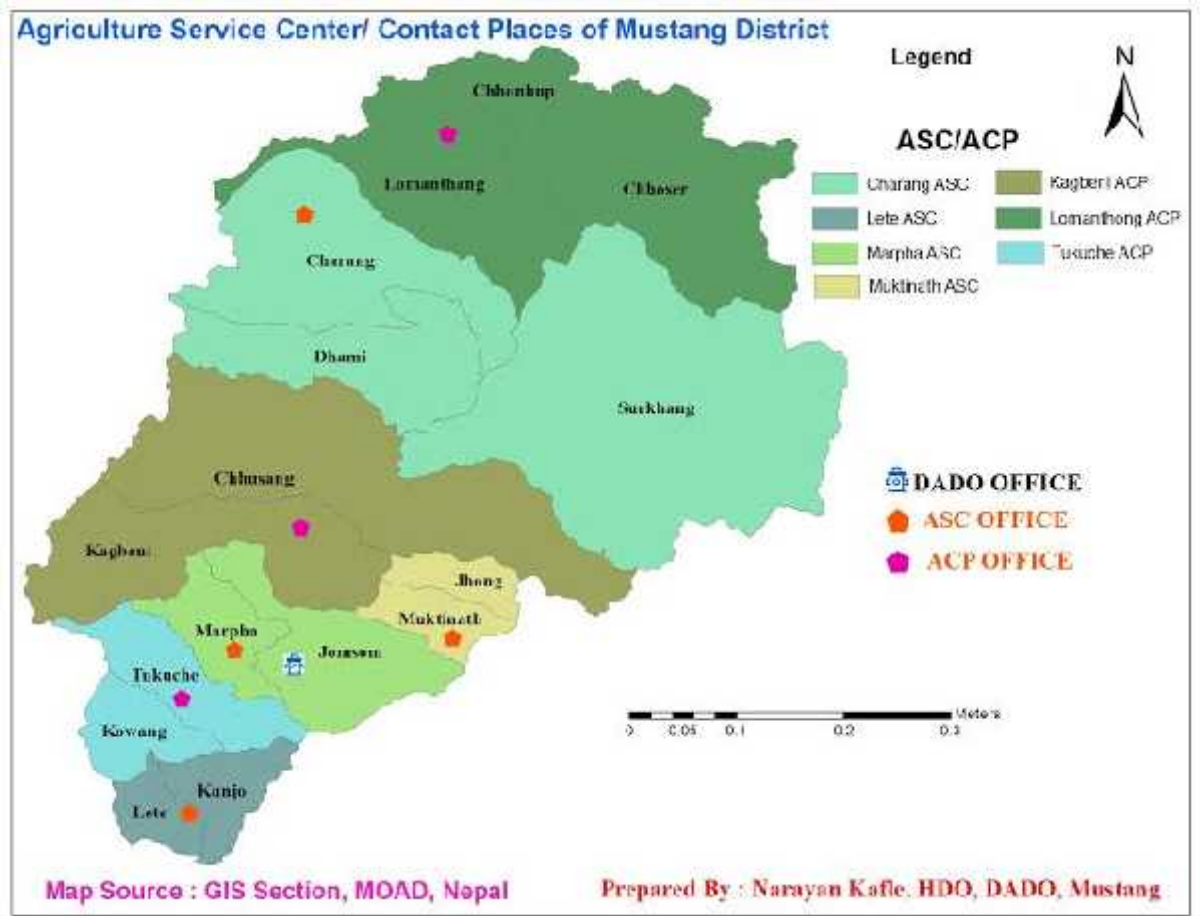
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Annex-A Map of Nepal showing Mustang District



**Annex-B Map of Mustang District showing sample VDCs**



## **Annex-C**

### **Questionnaires**

#### **Participation of women farmers in Agricultural training**

#### **(A Sociological study based on Mustang District, Nepal)**

- (1) Name of farmer: .....
- (2) Address : .....
- (3) Age : .....
- (4) Sex: .....
- (5) Marital status: (a) Married (b) Unmarried
- (6) Type of family: (a) Nucleus (b) Joint
- (7) Family size: (a) Total family member ..... (b) Male.....(c) Female.....
- (8) Education: (a) Illiterate (b) Primary (c) Secondary (d) SLC (e) above SLC
- (9) Religion: (a) Hindu (b) Buddha (c) Christians (d) Muslim (e) If others, specify.....
- (10) Head of household: (a) Male (b) Female
- (11) Land holding size (Ropani) (a) <5 (b) 5-10 (c) 10-20 (d) 20-40 (e) >40
- (12) Main occupation: (a) Agriculture (b) Services (c) Work abroad (d) Wage labor (e) If others, specify .....
- (13) Major income source in agriculture: (a) Food crops (b) Fruit crops (c) Vegetable crops (d) Potato (e) If others, specify.....
- (14) Food sufficiency period from own production: (a) <3 months (b) 3-6 months (c) 6-9 months (d) 9-12 months (e) >12months
- (15) Total annual income (Rs.): (a) <50000 (b) 50000-75000 (c) 75000-100000 (d) 100000-200000 (e) 200000
- (16) Labor role in agriculture: (a) More by male (b) More by Female (c) Equal
- (17) Control over income from agriculture: (a) Male (b) Female (c) Both
- (18) Ownership of Land and house: (a) Male (b) Female
- (19) Name of farmer's group:.....
- (20) Year of group formation:.....
- (21) Members in your group: (a) Total..... (b) Male.....(c) Female.....



(22) Your status in group: (a) Executive member (b) General member

(23) Are you member of other groups also? (a) Yes (b) No

If yes, what kind of group and why?

(a) Saving and credit group (b) IPM group (c) Group formed by NGOs (c) Forest users group (d) Irrigation water users group (e) If others, specify.....

Why? .....

(24) How was your group formed?

(a) Extension workers initiation

(b) Self initiation

(c) Both Extension agent and farmers initiations

(d) Motivation by neighbors (leading farmers)

(e) NGOs facilitating

(f) If others, specify .....

(25) What are the reasons of joining the group?

(a) Working together collectively

(b) Increase family income

(c) Gain access to extension services

(d) Help each other socially

(e) Self reliance

(f) If others, specify.....

(26) What are the benefits of being member in group?

(a) Sharing ideas

(b) Acquiring knowledge and skill

(c) Working collectively and overcoming labor shortage

(d) Increase family income

(e) Accessing services such as training and demonstration

(f) Getting loan in cheaper interest rate

(g) If others, specify.....

(27) What are the major activities of your group?

- (a) Fund collection and mobilization, Regular monthly meeting, Vegetable farming
- (b) Fund collection and mobilization, Regular monthly meeting, Vegetable farming and community marketing
- (c) Fund collection and mobilization, Regular monthly meeting, Vegetable farming and orchard establishment
- (d) Fund collection and mobilization, Regular monthly meeting, Vegetable farming and cereals farming
- (e) Fund collection and mobilization, Regular monthly meeting, Vegetable farming, seed production
- (f) If others, specify .....

(28) Equal access to benefits, resources and opportunities to men: (a) Yes (b) No

(29) In which type of group activities do you mostly get involved?

- (a) Group meeting (b) Planning of group activity (c) Resource mobilization (d) Fund collection (e) Others .....

(30) Who decides what activities to under take in your group?

- (a) President (b) all group members discussion (c) Male members (in case of mixed group) (d) leading members of groups

(31) Do you have role in decision making?

- (a) Yes
  - (b) No
- If yes what type of subject matter, specify  
.....  
If not why not .....

(31) What do you understand by participation?

.....

- (32) Whose role is dominant to nominate participants for training in your group?  
 (a) Group president (b) Extension staffs of your area (c) Elite member (d) Group discussion and decision (e) If others, specify.....
- (33) In what types of group do you prefer to participate?  
 (a) Women group (b) Mixed( male / female) group (c) Same ethnic group (d) Same education level groups (e) Same age category group (f) Group in the same area  
 (h) If others, specify .....
- (34) Do you know about district level and Agriculture Service Center level agriculture training conducted by DADO/ ASC?  
 (a) Yes (b) No
- (35) If yes then, how do you know about Agriculture Training?  
 (a) Extension workers (b) Medias (Radio, TV, pamphlet) (c) Farmers group  
 (d) Elite (progressive farmers) (e) Other organization (name organization)  
 (f) If other please specify
- (36) Have you attended in training program by DADO and other organizations like NGO/INGOs?  
 (a) Yes (b) No  
 If yes, how many times.....  
 If not , why.....
- (37) Which agricultural training you like more and which less and why ?  
 (a) Training by extension organization (DADO/ASC)  
 (b) Training organized by NGO/INGOs
- (38) What training methods were used in agriculture training?  
 (a) One way lecture (b) Interactive lecture (c) Interactive lecture with group discussion (d) Practical classes (e) Demonstration, exposure tour (f) If others, specify.....

- (39) Which of the above training methods you like most?
- (40) How have you participated in agriculture training?  
 (a) Just listening (b) Active discussion (c) Bringing new topics (d) Partial discussion  
 (e) If others specify.....
- (41) What kind of trainings do you like the most?  
 (a) Cereal crop production (b) Vegetable cultivation techniques (c) Fruit orchard management (d) Insect and disease management (e) Group strengthening and empowerment
- (42) What is the condition of production of crops in your farm before and after receiving Agricultural training?  
 (a) Increased (b) Remains same
- (43) Do you have any constraints in participating training?  
 (a) Yes (b) No
- (44) If yes, then what type of constraints?  
 (a) Household activities and livestock rearing (b) Long distance to training center (c) No child care (d) No female extension staffs (e) Culture (f) Poor economic condition
- (45) In your view, how can participation of women in training be improved?  
 (a) On the spot training and arrange time with women farmers (b) Communication to extension staffs and group members (c) Strong and active group members (d) Relevant and need based topic (e) Good daily allowance (f) Giving priority to women farmers

**Thank You for your valuable time, information and suggestion !!!**

## Annex- D Name of Respondents

| S.N. | Name of Respondent   | Address       | Age (Years) | Sex    |
|------|----------------------|---------------|-------------|--------|
| 1.   | Sushila Gauchan      | Lete VDC- 4   | 55          | Female |
| 2.   | Ram Kumari Thakali   | Lete VDC- 4   | 28          | Female |
| 3.   | Hari Kala Paudel     | Lete VDC- 4   | 45          | Female |
| 4.   | Sita Thapa           | Lete VDC- 4   | 22          | Female |
| 5.   | Om Kumari Gauchan    | Lete VDC- 4   | 70          | Female |
| 6.   | Ishmita Thakali      | Lete VDC- 4   | 32          | Female |
| 7.   | Pushpa Sherchan      | Kobang VDC-5  | 45          | Female |
| 8.   | Ratna Thakali        | Kobang VDC-5  | 38          | Female |
| 9.   | Tista Thakali        | Kobang VDC-5  | 40          | Female |
| 10.  | Bimala Thakali       | Kobang VDC-5  | 38          | Female |
| 11.  | Manrupa Thakali      | Kobang VDC-5  | 55          | Female |
| 12.  | Mana Kala Thakali    | Kobang VDC-5  | 30          | Female |
| 13.  | Sajana Thapa         | Tukucho VDC-1 | 35          | Female |
| 14.  | Subina Adhikari      | Tukucho VDC-1 | 50          | Female |
| 15.  | Bina Dahal           | Tukucho VDC-1 | 30          | Female |
| 16.  | Sobita Gauchan       | Tukucho VDC-1 | 27          | Female |
| 17.  | Muna Thakali         | Tukucho VDC-1 | 30          | Female |
| 18.  | Ranjana Thakali      | Tukucho VDC-1 | 35          | Female |
| 19.  | Dil Maya Thakali     | Marpha VDC-9  | 32          | Female |
| 20.  | Binu B.K.            | Marpha VDC-9  | 28          | Female |
| 21.  | Bimala Pariyar       | Marpha VDC-9  | 32          | Female |
| 22.  | Shushma Thakali      | Marpha VDC-9  | 40          | Female |
| 23.  | Mina Gauchan         | Marpha VDC-9  | 44          | Female |
| 24.  | Binita Thakali       | Marpha VDC-9  | 33          | Female |
| 25.  | Purna Kumari Thakali | Jomsom VDC-8  | 35          | Female |
| 26.  | Gyanu Thakali        | Jomsom VDC-8  | 32          | Female |
| 27.  | Rupani Thakali       | Jomsom VDC-8  | 40          | Female |
| 28.  | Shanti Gurung        | Jomsom VDC-8  | 33          | Female |
| 29.  | Jamuna Chhetri       | Jomsom VDC-8  | 35          | Female |
| 30.  | Sabitri Dhakal       | Jomsom VDC-8  | 40          | Female |
| 31.  | Sarita Thakali       | Jomsom VDC-2  | 42          | Female |
| 32.  | Dilmaya Thakali      | Jomsom VDC-2  | 35          | Female |

|     |                    |               |    |        |
|-----|--------------------|---------------|----|--------|
| 33. | Maya Sherpa        | Jomsom VDC-2  | 38 | Female |
| 34. | Shanta Thakali     | Jomsom VDC-2  | 50 | Female |
| 35. | Bishnu Thakali     | Jomsom VDC-2  | 25 | Female |
| 36. | Rupa Paudel        | Jomsom VDC-2  | 32 | Female |
| 37. | Aangya Gurung      | Kagbeni VDC-7 | 35 | Female |
| 38. | Sirjana Gurung     | Kagbeni VDC-7 | 26 | Female |
| 39. | Shree Many Thakali | Kagbeni VDC-7 | 35 | Female |
| 40. | Samjhana Thakali   | Kagbeni VDC-7 | 38 | Female |
| 41. | Shova Gurung       | Kagbeni VDC-7 | 36 | Female |
| 42. | Shanta Pariyar     | Kagbeni VDC-7 | 30 | Female |
| 43. | Pema Gurung        | Kagbeni VDC-2 | 36 | Female |
| 44. | Dolma Gurung       | Kagbeni VDC-2 | 40 | Female |
| 45. | Babita Chhetri     | Kagbeni VDC-2 | 34 | Female |
| 46. | Sunita Sherpa      | Kagbeni VDC-2 | 37 | Female |
| 47. | Laxmi Gurung       | Kagbeni VDC-2 | 27 | Female |
| 48. | Rubina Gurung      | Kagbeni VDC-2 | 42 | Female |

#### **Annex -E Name of key informants**

| S.N. | Name of key informant    | Address                                    | Designation                               |
|------|--------------------------|--|---|
| 1.   | Mr. Rewati Raman Paudel  | DADO, Mustang                              | Senior Agriculture<br>Development Officer |
| 2.   | Mr. Babu Ram Adhikari    | Janwal Secondary School<br>Marpha, Mustang | Teacher                                   |
| 3    | Mr. Binod Ghimire        | DADO, Mustang                              | Agri. extension officer                   |
| 4    | Mr. Path Badahur Thakali | Tukucho, Mustang                           | Leader Farmer                             |
| 5    | Mr. Prakash Paudel       | Tukucho VDC                                | VDC secretary                             |
| 5    | Mr. Surendra Hirachan    | Marpha VDC                                 | Leader Farmer                             |
| 6.   | Mrs. Aangya Gurung       | Kagbeni VDC                                | Leader women farmer                       |
| 7.   | Mina Gauchan             | Marpha VDC                                 | Leader women farmer                       |
| 8.   | Prem Khatri              | Marpha ASC                                 | Junior Technician                         |
| 9.   | Bhim Thakali             | Jomsom ASC                                 | Junior Technician                         |
| 10   | Narayan Kafle            | DADO, Mustang                              | Horticulture<br>Development Officer       |

## Annex-F Photo Gallery



Researcher conducting Focus Group Discussion with women farmers' group



Researcher filling interview schedule with women farmer



Participation of women farmers in on the spot training

|   |  |
|---|--|
|    |    |
| <p>Researcher filling interview schedule with women farmers</p>   | <p>Researcher and Senior Agriculture Development Officer of Mustang district during field observation</p>                      |
|   |   |
| <p>Radio journalist taking view of male farmer about improvement of women farmers participation agricultural training</p> | <p>Researcher and women farmers group in a training program organized by District Agriculture Development Office, Mustang.</p> |