CHAPTER I

INTRODUCTION

1.1 Background of the Study

Nepal is predominantly agricultural country with 81% of its total economically active population engaged in agriculture (CBS 2000), and they earn their living from agriculture. Agriculture plays an important role in the economy, contributing more than two-fifths of Gross Domestic Product (CBS 1997) and as a major supplier of raw materials to local industry and it is generally accepted that the key to economic development is agricultural prosperity. This indicates that economic development of the nation and raising the living standard of its people highly depends upon the agriculture development. Nepal's overall economic performance has been poor (ADB and ICIMOD, 1992).

Rural and agricultural development demands dissemination and use of an appropriate technology to the majority of the farmers. But, there has been a gap between information generation and its dissemination to the ultimate user farmers are not able to keep pace with the fast growing farm technology. Enough technical information has been generated at agricultural universities and research stations, but target consumers of such information, the tillers of the soil, are aware of only a part of it.

Technology transfer is primarily a matter of communication, motivation, applying the results locally, and favorable economics at minimum acceptable risk. Under this concept, it is the takes of agriculture extension system to initiate the transformation of technology, particularly in situations end-users are not capable of seeking out the technology. Furthermore, the role of agriculture extension system is to generate information in the rural agricultural sector through informational and educational programs that would enable the rural people to make more informed decisions on matters affecting themselves. Such educational programs as well as the technology should be problem oriented, farmers' interest and need based. What the farmer expect, what is their needs & interest, this point should be kept in mind while planning the programs and generating the new technology (Suvedi, 1981). This is hoped, would improve the performance of agriculture enterprises by increasing productivity through the use of profitable new technology.

1.1.1 Historical Overview of Agricultural Extension of Nepal

Agricultural extension service was introduced to Nepal with the initiation of rural development program. In 1952, when the Tribhuvan Village Development Program was implemented, extension workers known as Village Level Works (VLW) were employed to carry out various rural development activities including agricultural extension at the field level. To ward the end of the decade, agricultural extension was given a high priority. As consequences, in 1959, an extension section was established in the Department of Agriculture (DOA) to plan and execute the extension program on a larger scale. Following this change, the village level workers were redesignated as Junior Technical Assistant (JIAs).

Major revisions of the organizational structure of the agricultural extension service took place in 1966 and 1973. In 1966, the extension service was reorganized as a separate department directly under the Ministry of Agriculture (MOA). In 1973, the DOA Extension was amalgamated with other departments to a single department "Department of Agriculture". At this time, extension directorates were also established at the regional headquarters in order to effectively oversee the extension programs in the respective regions.

Besides developing an appropriate organizational structure for the extension service, the DOA was also making an effort to institutionalize training

for JIAs. Accordingly, the school of agriculture was established under the DOA in 1957 to conduct formal training for JIAs. In 1968, the school was upgraded to collage status; it then began to offer a pre-service agricultural education program at the intermediate level. In 1973, the college was brought under the administrative umbrella of T.U., where it was renamed the Institute of Agriculture and Animal Science (IAAS).

1.1.2 The Present Organizational Structure of Agriculture Extension

The Director General (DG) of the DOA has the overall responsibility for executing extension program in the country. He has assisted by the Deputy Director General (DDG) of planning and administration. Different divisions (units) with in the DOA facilitate the implementation of extension programs. The organizational structure is presented in the form of a flow-chart in Annex-1.

Directorate of extension organize the various visit, tours, workshops and other technology dissemination methods; directorate of training coordinates training in different locations; the agriculture information and communication centre produces various printed materials and present the radio agricultural programs; and others are in their respective fields. The country is administratively divided into five developmental regions and 75 districts. At the regional level, the extension program has administered by the Regional Director (RD). All districts of each region fall under the supervision of each regional director. At the district level, the extension program is carried out by the Senior Agriculture Development Officer (SADO). He is supported in the implementation of the programs by a number of Subject Matter Specialist (SMS), technical and administrative personnel.

District Agriculture Development Office (DADO) is again grouped into 4 to 6 Agriculture Service Centre (ASC) at the field level and a junior technician (JT), who is in-charge of the service centre, supervises the activities of 3-5 JTAs working in the centre. The JTs also work directly with the farmers. They formed farmers group in Village Development Committee (VDC) level and implement the agricultural extension programs.

1.1.3 The Current Agricultural Extension System

The agricultural extension services in Nepal have focused mainly on extension method such as personal contact, group contact and mass contact with major emphasis on result demonstration, method demonstration, agricultural fair, mini-kit distribution, and training and tours for farmers. Function of agriculture extension is the change in attitude, knowledge, skill and behaviors of farmers for income generation and better living standard. It may differ according to time and place, but main function of extension is to better the living standard of farmers. But, present agriculture extension system of Nepal is top down, traditional, monolistic, public funded and controlled agriculture extension system. Coverage of existing extension services is very limited (about 5%), it is basically target oriented, so reflection of farmers demand in extension activities is minimum (AREP, 2000).

Group is used as a vehicle to implement many developmental programs nowadays. This approach provides its effectiveness in various field of development. In Nepal, several types of groups are used to make program effective and sustainable. Farmer's group (FG), Water User's Group, Community Forest User's Group, income generating groups, saving and credit groups are some of the examples of group existing in Nepal.

The Decentralization Act 1982 focused the ideas and practices of user's group concepts of local community level for development activities. Government clearly spelt out the policies regarding the agriculture extension in the 8th five year plan (1992-1997) which emphasized the involvement of farmers groups in planning and implementation of agriculture programs at village levels. It has been tried and have found potentially more successful than

other strategies; because of coverage, cost effectiveness and participatory in nature.

DOA started FG formation and mobilization since 1988/89 in Block Production Program (BPP). This approach was actually designed based on the experiences of the different extension approaches operating in Nepal at that time and also with the experience of the extension professionals inside and outside of the country (Baral, 1989).

It is now well-recognized fact that FG approach to extension has an advantage over the other extension approaches. The objective of the group approach is to empower small farmers to develop self-reliance through formation of groups. The only crucial issue is how to organize them into self-help farmer group (Upreti, 2002).

1.2 Statement of the Problem

DOA is grouped into five Regional Directorate of Agriculture and under the supervision of these regional directorate, DADO has been established in 75 district; which is expected to demonstrate its full potentialities in rendering agricultural extension services to the farmers clientele in their respective areas/villages. It is reasonable to assume that the department and district level office being agency of generating and disseminating of yield increasing farm knowledge and information, farmers should look the agricultural extension services of the office to solve their farming problems vis-a-vis increased productivity.

However, if a sound extension program is to be developed, definite information concerning the agricultural extension services to which the farmers in the service area are presently receiving and the extent of their satisfaction, towards these services need to be assessed.

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Likewise, an analysis of the extension services of the DADO should be made so that it could function as a reference point in designing an effective extension program especially among the farmers. It is claimed that expectation of the extension services vary widely among farmers depending on the nature of their problem and the extent and the kind of the extension services to which they are receiving. Therefore, in designing an effective extension program in any agency, an investigation of the extension services that the farmers want is of utmost importance. Hence, this study attempted to answer the following questions:

- What are the farmers' problems in farming?
- What extension services are the farmers presently receiving?
- In what extent are they satisfied with these extension services?
- What is the existing linkage of District Agriculture Office and other agencies?
- What kinds of extension services do the farmers expect from the office?

1.3 Objectives of the Study

The overall purpose of this study was to ascertain the farmer's expectation of the extension services from the Agriculture Development Office, Syangja.

The specific objectives of the study were:

- 1. To make a socio-economic profile of the farmers covered by the study
- 2. To describe the farmer's problems associated with agriculture

- 3. To find out the extension services receiving by the farmers
- 4. To explain expectation of the farmers with regard to the agricultural extension services
- 5. To analyze the impact of extension services in the community as perceived by the farmers themselves

1.4 Importance of the Study

Basically, planning is an important stage in any development program. A realistic and meaningful expedition education program for rural youths and adults require an appraisal of some relevant factors basic to formulate guidelines for the program. This study aimed to gauge the extent to which extension services rendered by different agencies working that area have contributed towards meeting the educational needs of the farmers in general. Likewise, it aimed to find out the farmers' expectations of how the DADO could help them. It was hoped that the result of this study would make it possible for DADO to formulate plans that are better geared to the problems, needs and expectations of the farmers in the rural areas. It is also hoped that the findings could serve as a reference point to the researchers, students, planners and the extension workers of different agencies who presently are rendering extension services in this area of study and especially those of the DADO as guide lines for designing effective extension services that could be funneled to the farmer clientele.

CHAPTER II

REVIEW OF LITERATURE

2.1 Review of Theories and Concepts

People do not behave in a random manner. It is patterned. The behavior pattern is influenced to some extent by their own expectations and those of others in the group of society in which they are participants.

Secord and Beckman (1964) defined expectations in terms of anticipatory and normative quality of interaction. They explained two general kinds of expectations as rights and obligations. The expectations in which the actor of a role anticipates certain performances from the actor of reciprocal role are considered as rights. Obligations (or duties) are role expectations in which the actor of a role anticipates certain performances directed to ward the actor of the reciprocal role. Both kinds of expectation i.e., rights and obligation would be analyzed in terms of actions and qualities. Within a culture, each position has associated with it a set of expectations or norms. These expectations specify the behavior of an occupant of that position may appropriately initiate toward an occupant of some other position and conversely those behaviors of an occupant of the other position may appropriately initiate toward the first. Thus, the concept of role is related to these expectations because the role consists of the system of expectations which is exists in the social world surrounding the occupant of a position i.e., expectations regarding his behavior toward occupant of some other position.

Paul (1963) expressed the term 'role' refers primarily to the set of expectations which group members share concerning the behavior of a person who occupies a position of a group.

Expectations which are patterned into roles are considered as a essential ingredient for predicting social behavior and according to Lindzey (1959), they are learned through two broadly defined procedures; intentional instruction and incidental learning.

An actor alone cannot designate the actual role that he wants to perform. It is usually established by him in consideration of his definition of role and the expectations of other actors in a given setting. Furthermore, expectation of those people who are the occupant complementary roles is more important for guaranteeing a satisfactory level of role performance because sanctions rewarding proper performance and punishing poor performance are generally applied by occupants or complementary roles (Brown, 1965).

2.2 Review of Previous Studies

According to ADB/HMGN (1982) DOA is responsible for extension services on crops and fisheries. Livestock extension is provided by Department of Livestock Development and Animal Health (DLDAH) where as the Jute Development Corporation, Tobacco Development Corporation and Tea Development Corporation provide advice relating to production, marketing and credit for these commodities. Extension has not been a part of forest related activities in the past, but under the on going Community Forestry Program, the role of the forestry staffs is being expanded to include extension and a new cadre of "Panchayat Forest Foremen" is being developed to provide community forestry extension at the field level.

It is also reported that the present system of agricultural extension has been more or less ineffective. The JTAs are too thinly spread and with deterioration in their training, their ability to provide sound advice to the farmers is questionable. The crop extension system has not been able to carry relevant messages to the farmers due to the lack of suitable technology packages. Often recommended inputs are not available adding to the ineffectiveness of extension. An adequate system of supervision and control within the extension network does not exist mainly due to lack of financial resources. There is little formal linkage between research and extension.

Suvedi (1981) mentioned that agricultural colleges and universities are regarded as one of the agencies expected to contribute extensively in promoting the development of rural communities. His study conducted in Philippines concluded that the institution of higher learning should start rendering extension services in co-ordination with other agencies, especially the Ministry of Agriculture. The role of higher educational institutions particularly in agriculture is to provide the necessary skill and knowledge in farming among the farm populace. Likewise, they should upgrade the existing skill and knowledge of employed labor in farming. For this reasons, these institutions should serve as generator of new yield-increasing farm technology and show windows of modern agricultural practices.

Sison (1972) mentioned that some educational institutions in the Southeast Asian region have not taken the responsibility of recognizing extension as one of their legitimate functions.

AVRDC (1994) reported that the centre has been conducted different training and extension programs such as documentation/publication, information dissemination, communication materials production, promotion of public awareness etc. The research findings are also being expanded through electronic media (BBC, Voice of America, Local media) at international level. This is also an important pace to uplift the agricultural sector.

Alex (2000) reported that extension services for ultimate farmers are quite traditional and excessively technology focused. New extension method and training courses are needed to address some of the new issues in extension (marketing, farmer organization work, business planning, collaboration with extension partners, bottom up planning, natural resource management etc.). He also suggested that DOA training center curricula need urgent revision to reflect new extension system needs for working with workers organization, bottom up planning decentralization and working with private sector extension providers with changing extension strategies, course on decentralized extension operation, monitoring and evaluation and project based planning will become important.

Halim and Islam (1973) observed in their study conducted in Bangladesh that extension personnel who are working with farmers at grass root level should give much emphasis to include courses on technical subject matter and extension teaching methods in their future in- service training programs. Only after, it would hope the extension services become more effective.

Jaminson (1978) noticed that the availability of agricultural extension services had a substantial and statistically significant positive effect on agricultural productivity. Moreover, the farmer's exposure to agricultural productivity and farmers' exposure to agricultural extension were significantly and positively related to efficiency.

In Nepal, considering extension workers as the key to transforming improved technology, the ratio of extension workers to farmers is not at all encouraging. According to project status report of AREP (2000) coverage of extension services is very limited (only about 5%). The trained man power for rendering the extension services is inadequate.

Dalisay (1978) indicated that due to the inadequacy of trained manpower in the case of the Bureau of Agriculture Extension to undertaken the necessary activities in the farm community, the field workers had to carry a heavy work load and lack of effective working.

He further put that, "the agricultural research and extension systems, on the one hand, which have been organized with a view to providing the extension educational support to small farmers and farm workers, have not succeed in brining improved technology and necessary technical information to all farmers. The common criticism that the extension services tend to assist large and wellto-do farmers, leaving the small and under-privileged ones to their own devices, still holds today."

Suvedi (1981) observed in his study conducted in Philippines that the task of agricultural extension in managing communication inputs such that the farmers receive the needed information at the right time, at the right place and at the right contact is inevitable. In this direction, he further indicated that the extension service received by the farmers is inadequate to keep pace with the fast growing new farm technology. Farmers, in general, and those residing away from the roadside in particular, are not receiving much help from the extension workers. They had to depend on informal sources of help such as neighbor, cofarmers and friends to solve their farm problems.

AREP (1999) found that, for the diagnosis of farmers' needs, priorities and expectation, a large number of training courses are being organized both at Regional Training Center and at the Agricultural Training Directorate.

According to Mathur (1996), a good extension strategy followed in the entire agricultural development projects. It is imperative for better performance and also helps individual growth.

Maslow described motivation and its resultant behavior as flowing from internal responses to the basic needs of human organization. This view was first basic needs of human organism. This view was first presented by Kurt Goldstein whose research proved that man was not motivated primarily by responses to external stimuli nor by conditioned reflexes, but rather by the internal potentialities of his own being and the need for these potentialities to be actualized by the self. Goldstein developed the concept of self-actualization as man's fundamental and most important needs. Maslow recognized that were a variety of basic human needs and they could be arranged in a hierarchy of relative prepotency. This means that human needs could be visualized as stacked in layers and that the higher needs were only potentially presented as motivators and could not be actualized unless the need on the next level below was satisfied. So the extension services on the basis of higher needs of the farmers are extended for their effectiveness.

"Man does not learn any thing that he does not love" is an important German saying, and it also emphasized the importance of designing extension programs on the needs of the clientele. It is also believed that one learn faster the subjects, which are of interest to him, than the uninterested ones.

Smith (1965) emphasized the need and interests of farmers. He observed that farmers attend adult classes if knowledge gained relates to their farming business. What they learn should be practical application. After these farmers attend education courses voluntarily, programs must be based on their expressed needs and interest.

Koirala (2002) emphasized the gender issue. He focused the needs, specifically training needs of farm women involved in agriculture production program. He found that women farmer participation is low in training as well as other extension teaching method because of domination by male and socio-culture problems existing in society. In this context, extension program/services to be effective, it is necessary to give need based training/teaching methods of extension to the farmers for the agricultural development.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Rationale of the Selection of Study Area

The study area Sirsekot Village Development Committee of Syangja district was selected for this research work. There were numerous reasons for the selection of study area. The most important one was agricultural extension programs were heavily implemented in that area. Another, that area is very productive from agricultural point of view. Having Agriculture Service Center in this area, more conscious and active farmers; and other infrastructures such as Agriculture Development Bank, Rural Development Bank, Cooperatives etc. were also other important reasons for the selection of the area. Next, no any research related to this topic has been conducted previously in that area. Lastly, accessibility of researcher from his workplace, familiar with the area and chance of working in future were also equally important reasons for the selection of study site.

3.2 Research Design

Descriptive research design used in this research. Descriptive since it involved in description, recording, analysis and interpretation of condition that now exist in the area. Present situation of agriculture from sociological point of view was examined and also analyzed about the relationship between present agricultural extension services and farmer's expectation in the future.

Exploratory used to know more explanation about farm community and farmers characteristics. The research also covered the future potentiality for agricultural extension in the study area.

3.3 Nature and Sources of Data

Both primary and secondary data have been used for the research. The primary data were collected from the field with the help of interview schedule and secondary data were collected from District Agriculture Development Office (DADO), Agriculture Service Center (ASC), and respective Village Development Committee (VDC) etc.

3.4 Universe and Sample

Present study is a case study of Sirsekot VDC of Syangja district, the case was selected purposively. The universe of the study comprised farmers organized in to groups in Sirsekot VDC of Syangja district. In the VDC, there are 7 Farmers Groups out of which 3 Farmers Groups were selected for this study by using random sampling method. All the members of the selected 3 Groups i.e. 56 respondents were used as a sample. The total number of farmers tie up in groups (universe) was 175 and size of sample was 56. At first, purposive sampling technique was followed for the selection of the District and Village Development Committee.

Thus, the sample respondents were selected at two stages. In the first stage, three Farmer Groups were selected using random sampling procedure. And, in the second stage, all the 56 members of the selected groups were included in the study. For selection procedure, the necessary information about groups was obtained from the personnel of ASC and DADO, Syangja.

3.5 Data collection Tools and Techniques

Data for this study were gathered through an interview with the use of a semi-structured interview schedule which was formulated for the purpose. Interviews were conducted with farmers belonging to various farmers group at their homes and farms, wherever were available. The researcher himself interviewed the extension personnel of different agencies/department at their respective offices/stations.

The pretest was conducted by using semi-structured interview schedule among 10 respondents of Sirsekot VDC. Necessary corrections and modifications were made in the interview schedule on the basis of the results on the pre-testing before its use in the field.

3.6 Data Processing and Analysis

Twenty items consisting of different types of possible extension services that the DADO could extent to the farmer clientele of its service area were formulated in a four-point scale to measure the respondents' expectations. Based on the respondents' reaction to the individual item, "High expectation"; "Low expectation"; "Undecided"; and "No expectation", responses were given the score of 4, 3, 2 and 1 respectively. The total expectation score of each respondent was summed up. From the total score a mean expectation score of all the respondents was computed and the scores within and below the mean was categorized as "Low" and above the mean as "High" expectations.

Similarly, mean expectation score for each item was also computed for the purpose of ranking the kinds of extension services expected by the respondents from the DADO.

The quantitative data being collected using the interview schedule were edited before they were entered into the computer for analysis, with a view to have higher level of accuracy. The data were grouped, categorized and analyzed according to the objectives of the study. Various descriptive statistical measures such as: number and percentage distribution, range, frequency counts, mean, medium, standard deviation and rank were used to describe the farmers' characteristics, problems in farming, extension services presently received by the respondents and their expectations from the agriculture development office (DADO), Syangja.

3.7 Limitations of the Study

The study was carried out in only one hill district of Nepal. Hence, the entire result of the study may not be applicable to the terai and mountain areas of the country in particular. The site was selected due to accessible in terms of road, market, Agricultural Service Centre and other infrastructures.

The study is based on information gathered from the selected farmers groups only. As an academic research, the resource and time were taken in consideration for collecting relevant information. The finding of the study may be conclusive only for the areas of the study.

CHAPTER IV

DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE

4.1 Setting of the Study

The study area, Sirsekot VDC, lies in Syangja District. Following sub sections describes the various features of the study area that includes geographical location, climatic condition, cultivated land, accessibility etc.

4.1.1 Syangja District: An Introduction

The study was conducted in Syangja District, one of the hill districts of Gandaki Zone in the Western Development Region of Nepal. The district covers a total area of 102087 hectare of land. The district is bordered by Gulmi in the west, Parbat and Kaski in North, Tanahun in East and Palpa in the South. The Siddhartha highway across the district at northern and southern part and the district headquarter Putalibazzar is 44 kilometers far from the selected VDC.

Geographically the district has been expended from $27^{0}50'$ to $28^{0}15'$ north attitude and $83^{0}27'$ to $84^{0}2'$ east longitude. The climate is sub-tropical and soil type of different localities very depending on the altitude, which ranges from 366 meter to 2512 meter from the mean sea level. The district has been an annual rainfall of 218 mm and average minimum and maximum temperature range lies 9.5^{0} to 31.7^{0} centigrade respectively.

Out of total area, 50431 ha. is covered by cultivable land and 30393 ha. is cultivated. The total irrigated land 9953 ha., pasture land 10265 ha., forest land 31691, and other 1713 ha. Farming remains to be the major source of income among the majority of population. Rice, wheat, maize are the major cereal crops, and oil seeds, lentil, vegetable and fruits are the main commercial crops grown in the district (CBS 2001)

4.1.2 Sirsekot VDC: The Study Site

The study is located in the western part of Syangja district ilaka no 15. It is bordered by Pindikhola in the south, Parbat district in the west, Kalikakot and Thum Pkhara VDCs in the east and Pelakot in the south.The study area is 6 km far from the Bayatari (Siddhartha highway).

According to 2001 projection, the selected VDCs have a total population of 4464 with 1991 male and 2473female. The study area has 896 household with average family size of 4.98. The major caste/ethnic compositions were Bhramin (38.42%), Gurung(34.52%), Magar(15.95%), Chhetri(3.58%), Sarki(2.24%), Kami(2.09%), Damai(1.9%) and others(1.3%). While talking about religion, most of the people are Hindu and Buddhist.

As far as occupation is concerned; farming, service in the government and other different private agencies, small scale local business, tea shops etc are predominantly prevailed. The main agricultural crops of the study area are: Paddy, Maiza, Wheat, Millet, Vegetables, Fruits etc. Farmers are also involved in the raising of livestocks (Cattle, Buffaloes, Goat/Sheep, Rabbits, Poultry etc.)

4.2. Characteristics of the Sample Respondents

The present study is primarily concerned with the agriculture extension services received by the farmers and their expectation in the Sirsekot VDC of Syangja District. Various studies have indicated that socio-economic factor of the farmers plays a vital role in agricultural production and productivity that ultimately helps improves the living standard of the rural poor farmers. Likewise, socio-economic and demographic factors can explain the existing situation regarding extension services and their impacts.

4.2.1 Age and Sex Composition

Age is one of the basic demographic characteristics. Age of an individual refers not only how many years have passed since one took birth, but it is also denotes more or less one's mental and physical maturity, roles and responsibilities, generation and status in the family and in the society. Similarly, sex is also a basic characteristic of an individual. This refers to the biological differences that are universal and unchanging. The sex difference also refers to the gender roles. The rural community takes the sexual division of labor as traditionally granted and make gender specific distinctions between what men and women should do. In view of this, age and sex composition of the respondents has been taken in to consideration. Distribution of the respondents according to their age and sex composition given in the table.

Age Group	Male	%	Female	%	Total	%
Below 29	1	8.33	5	11.36	6	10.714
30-39	2	16.67	12	27.27	14	25.00
40-49	5	41.67	15	30.09	20	35.714
50-59	3	25.0	9	20.45	12	21.428
60 and above	1	8.33	3	6.81	4	7.142
Total	12	100	44	100	56	100.00

Table 4.1: Age and Sex Composition of Respondents

Source: Field Survey 2008

Mean- 43.92,

The age of the respondents ranges from 21 to 70 years with a mean of 43.92 years. More than one -haft (60.71%) of the respondents was between the age ranges of 31 to 50 years and female. It should be noted that middle age people are in farming than both younger and older people.

4.2.2 Level of Education

Education is an important identity of and individual. It is a means of raising awareness and gives social status in the society. It is even more important in a traditional rural society where education is not a common phenomenon and educational opportunities are not equally accessible to all. In this view, education of the sample respondents was taken in to consideration.

Education	Male	%	Female	%	Total	%
Under Class 5	2	16.67	11	25.0	13	23.21
S.L.C.	7	58.33	19	43.18	26	46.42
Intermediate	3	25.0	13	29.55	16	28.57
Bachelor's or	0	0	1	2.27	1	1.78
Above						
Total	12	100	44	100	56	100.00

Table - 4.2 Level of Education of the Respondents

Source: Field Survey, 2008

The level of education varied between the respondents. The respondent's level of educational attainment ranged from under Class 5 to Bachelor's Degree. It was also observed that the respondents who belonged to a higher educational category were part time farmers.

4.2.3 Family Structure

Family is the most basic social institution. Everybody belongs to a family either by birth or affinity. Most of the activities of an individual revolve around his/her family. Young and old members of the family depend on other members. The adults take different responsibilities including their obligation towards the family. The following table shows the family type of the respondents.

Table: 4.3 Family Type

Family Type	Number	%
Nuclear family	18	32.15
Extended family	38	67.85
Total	56	100.00

Source: Field Survey 2008

The family type of the respondents was categorized in Nuclear and Extended family. It was observed that the least 18 family numbers were under Nuclear family and the highest number i.e. 38 families were under Extended family. Big family size of the respondents could be attributed to the extended family system which still characterizes some families in the rural areas.

4.2.4 Social Participation in Organization/Clubs

Human being can not exist without involving and participating in social activities. He needs help and cooperation to accomplish daily works and other different activities. From social participation, he can get information what is happening around and get well acquainted with the surroundings. For these reasons, in this study, respondents were asked whether they participated in Organizations/Clubs.

Participation	Male	%	Female	%	Total	%
Participated	4	33.33	20	45.45	24	42.85
Did not participate	8	66.67	24	54.55	32	57.14
Total	12	100	44	100	56	100.00

Table: 4.4 Participation of Respondents in Organizations/Clubs

Source: Field Survey 2008

A majority (57.14%) of the respondents reported that they did not participate in any form or another social/rural organization/clubs. Only 42.85% of the farmers were participated in organizations/clubs. Majority did not participate. However, the proportion of the farmers participating in organization/clubs is not same for both sexes. The proportion of the male farmers (33.3 %) participating in the organization/clubs is lower than the proportion of the female farmers (45.45%) participating in the organization/clubs.

Organization /Club	Male	%	Female	%	Total	%
Farmers Association	1	25.0	2	10.0	3	12.5
Water Uses Group	2	50.0	3	15.0	5	20.83
Community Forest	0	0	2	10.0	2	8.33
Users Committee						
Mothers' Group	0	0	10	50.0	10	41.67
Local Youth Club	1	25.0	3	15.0	4	16.67
Total No. Responding	4	100	20	100	24	100

Table 4.5: Organization and Clubs Participated by Respondents

Source: Field Survey 2008

The proportion of the male and female farmers participating in different organization and clubs shows that 25 % male and 10 % female farmers were participated in the Farmers Association, 50 % male and 15 % female farmers in the Water Users Group, 10 % female in Community Forest Users Committee, 50 % female in Mothers' Group, 25 % male and 15 % female were participated in Local Youth Club. The study shows that female farmers were actively participated in social organization more than male farmers.

Note: 32 respondents reported "no participation" in any Organization/Clubs

4.2.5 Farm Size

Farm size refers to the total area of land holding by the respondent farmers. Agricultural land owned by the farmers is the important aspect in farming. Since land is one of the main factors of production, this plays a vital role in agricultural production and productivity.

Farm Size	Number	Percent
10 Ropani and less	5	8.93
10 to 20 Ropani	17	30.35
20 to 30 Ropani	21	37.50
30 to 40 Ropani	9	16.07
40 and above	4	7.14
Total	56	100.00

Table: 4.6 Farm Size (land holding) of the Respondents

Source: Field Survey 2008

Mean = 23.88

Respondents' form size ranged from 7 to 60 Ropani, with a mean of 23.88 Ropani. and thus, showing a great variation among farmers as to the size of land-holding. Actually 8.93% farmers were working on not more than in 10 Ropani of land. More than one-half 76.78% farmers were cultivating on 20 to 30 Ropani of land. Only 7.14% of farmers were owned more than 40 Ropani of land.

4.2.6 Tenurial Status

Land tenure is a system in which land is managed by various methods. Under this system, government could play key role while making plans and policies. Land management system in Nepal has been implemented under the guidelines of Land Reform Act. There are various status under tenure system which has been categorized as shown in the following table.

Table: 4.7 Tenurial Status of the Respondents

Tenurial Status	Number	Percent
Tenant	9	16.07
Leaseholder	4	7.14
Tenant & leaseholder	5	8.93
Share Cropper	17	30.35
Owner-operator	21	37.50
Total	56	100.00

Source: Field Survey 2008

The ownership of land is generally considered as an important tool for improving a lot of the farmers. As to tenurial status, the majorities of these farmers were owner operator (37.5%) and share cropper (30.35%). Only 7.14% of them were leaseholder, and about 16.07% were tenants. It was also observed that there were a few respondents who were both tenants and leaseholders. It was further observed that in some cases, a farmer was a tenant during the first crop harvest and a leaseholder in the second crop harvest of the same year.

4.2.7 Income Source

Source of income of a household reveal many things about the activities of its members. This, in a way determines the range of the livelihood options and the activities carried out by the family member. In view of this, main sources of household income were taken into consideration.

		(N=56)
Sources	Number of Responding	
Sources	Farmers	Percent
Cereal Crops	40	71.43
Vegetables / Fruits	27	48.21
Remittance	36	64.29
Pension	9	16.07
Service /Jobs	7	12.5
Livestock / Livestock	16	22 1 <i>1</i>
Products	40	02.14
Interest	27	48.21
Rice Mill	3	5.35
Tea Shop	8	14.28

Table: 4.8 Sources of Income of the Respondents

Source: Field Survey 2008

The most common source of income was reported as sale of livestock/livestock products (82.14%) followed by cereal crops (71.43%), remittance (64.29%), vegetable/fruit and interest (48.21%) each. The other sources of income were pension (16.07%), tea shops (14.28%), service/jobs (12.5%), rice mills (5.35%).

CHAPTER V

PROBLEMS IN FARMING AND EXPECTATION OF EXTENSION SERVICES

5.1 Problems in Farming

Various problems regarding the crops grown and livestock raised by the farmers were assessed during the study period. The main crops grown by the farmers were paddy, wheat, maize, millet, vegetables and fruits. Similarly, buffalo, cow, goat/sheep were from livestock. Following table shows the main problem faced by the farmers.

Problems	Number of	Percent
	Respondents	
Lack of technical knowledge in farming	49	87.5
Insect/pest and diseases control	45	80.36
High cost of seeds and fertilizers	43	76.79
Low quality seeds and fertilizer available at	40	71 /3
local market	40	/1.+3
No Soil testing	35	62.50
Absence of technical personnel (JI/JIAS)	24	42.86
Disease control in farm animals	15	26.79
No irrigation	22	39.29
Low price of farm product	22	39.29
Lack of capital	20	35.71
Others	-	

Source: Field Survey 2008

The most of the frequently mentioned farming problems of the respondents were lacks of technical knowledge in farming, insect/pest and diseases control, high cost of seeds and fertilizers, low quality seeds and fertilizers available at local market, no soil testing and absence of technical personnel(JT/JIAs); as shown in. Other problems mentioned were; disease control in farm animals, no irrigation, low price of farm product and lack of capital etc.

5.2 Awareness, Contact and Availability of Technician

Technicians can help solve the farm problems of the farmers. Farmers can get more assistance from agricultural technicians or extension workers as per their needs. Therefore, awareness of the presence of technicians and contact with them is an important aspect in agriculture. Farmers contact the technicians if they have problems. They also get information from their neighbors, relatives and friends. But the reliable sources of information are the technicians.

5.2.1 Awareness of the Presence of Technicians

The presence of a technician who can help solve the farm and home problems of the farmers was considered as an important element in enhancing rural and agricultural development. When the farmers were asked if they were aware of the presence of the technician in their areas, only 19.64% responded negatively. However, 42.85% of the respondents did not know the technicians name nor could recognize him by face.

Table 5.2 Awareness and Knowledge of respondents about the Presence of Technicians

Awareness/ Knowledge	Number	%
Awareness of technician in the village		
- Know the technicians presence in village	45	80.35
- Don't know the technician	11	19.64
Knowledge of Technician		
- Know the technician's name	32	57.14
- Know neither technicians name nor recognize by face	24	42.85
Total		100

Source: Field Survey 2008

Most of the respondents (80.35 %) have the knowledge of technicians whether they are presence in their village. Likewise, 57.14% respondents know the technician's name and could consult them for solving farm problems. Among them, 19.64 % don't know the technicians and 42.85 % neither know technician's name nor recognize them by face. Main reasons for not knowing/communicating the technicians were found that they were residing far from the roadside and most of them were uneducated. The respondents who were aware of the presence the technicians in their village had their farm better than those who did not know the presence of technicians in the village.

5.2.2 Contacts with the Technicians

One of the best means by which the specific problems of the farmers could be solved is through some form of inter-personal contact between the farmers and the technicians of the various agencies/departments. The study revealed that near about two-third of the respondents (62.5 percent) had contacts with the technicians and the remainder, no contact at all.

Table 5.3:	Contact	with	the	Technicians
1 4010 0101	contact			reennenano

Contact	Male	%	Female	%	Total	%
Had Contact	7	58.33	28	63.64	35	62.5
No contact	5	41.67	16	36.36	21	37.5
Total	12	100	44	100	56	100

Source: Field Survey 2008

Of those who had contacted with the technician, a great majority or 82.85 percent of the farmers reported contact with a technician from the DADO/ASC at an average of 15 times a year. More than half or 58.62 percent of these contacts were initiated by the technicians, 27.58 percent, initiated by the farmer, and the rest, initiated by both. Furthermore, 51.72 percent of the contacts were

made at the farmer's home, 24.13 percent were in other places such as the schools, roads and the rest were either at the home or the office of the technician.

The respondents contact with the technicians of the DADO/ASC, Research institution/station and different NGOs/INGOs were limited and the majority of these contacts were initiated by the technicians.

Agency/	Purpose of Contact	Frequency
Department		of Contact
DADO/	-Information and delivery of inputs	4
ASC	-Result/method/production demonstration	8
	-Farm supervision	4
	-Farmers training/meeting	6
Research	-To conduct Farmers Field Trial (FFT) and	3
institution	other test.	
NGO/INGO	-Training about agriculture, livestock,	2
S	primary health and sanitation etc.	
(Suryodaya	-Child and adult education	3
Youth	-Others-construction/improvement of road	1
Club,RAID	and different social work	
P)		

Table: 5.4 Respondents' Purpose of Contact with the Technicians:

Source: Field Survey 2008

Generally, the purpose of these contacts between the farmers and the technicians were consultation on farm problems, farm supervision and delivery of farm inputs such seed, fertilizers & pesticides, result/method demonstration, training/meeting and other educational programs.

Reasons	Male	%	Female	%	Total	%
Technician don't visit me	0	0	6	37.5	6	28 57
reenineran don't visit me	0	0	0	57.5	0	20.37
I don't know the technician	1	20.0	3	18.75	4	19.04
Technicians are not	1	20.0	2	12.5	3	14.29
available here						
Technician is too far from	0	0	3	16.75	3	14.29
my place						
I have no any problem	1	20.0	2	12.5	3	14.29
Technician can't solve my	2	40.0	0	0	2	9.52
problem						
Total	5	100	16	100	21	100

Table-5.5: Reason of not having any Contact with Technicians:

Source: Field Survey 2008

About two-third or 37.5 percent of the farmer respondents had no contact with the technicians of these agencies/departments as of 2007. The main reasons were: "I don't know the technicians.", "technicians do not visit me.", "technicians are not available here."," technician is too far from my place", "I have no any problem", and "technician can't solve my problem"

5.2.3 Availability of the Technicians

Table: 5.6 Availability of technicians to the Respondents.

Availability	of	Male	%	Female	%	Total	%
Technicians							
Available		7	58.33	24	54.55	31	55.35
Not available		5	41.67	20	45.45	25	44.64
Total		12	100	44	100	56	100.00

Source: Field Survey 2008

The farmers' frequency of contact with the technicians does not always mean that technicians are available when his services are needed. The study showed that there were times when the farmer could not find the technician when he had problems at hand. Out of 56 respondents interviewed, 44.64 percent reported that technicians were not available when they needed them. It was observed that extension workers and other change agents seldom visit farms far from the roads.

When the farmers could not avail themselves of the services of the technicians, neighbor, co-farmers friends and seller of farm chemicals were the most frequently mentioned sources of assistance. Some farmers reported that the relations, president of farmers associations, village leader/chairman also assisted them when they needed help in solving their farm problems.

5.3 Service Received from the Various Agencies

There are various agencies including government rendering different types of services to the farmers' community. Agriculture extension service is one of them received by the respondents in that area which become an important tool for increasing agricultural production and ultimately raising the living standard of rural farmers.

5.3.1 Types of Service Rendered by Different Agencies/ Department

The major types of services received by the farmers from the technicians of research stations/institution are, conducting the farmer field trial (FFT) and other test/trial at local environment, provide agricultural inputs i.e. improved seeds/seedling at reasonable price etc. Like this, NGO/INGOs conduct the training in agriculture/livestock, primary health and sanitation, child and adult education and other construction/improvement and social welfare works. Agriculture Development Bank (ADB) and Rural Devt. Bank (RDB) provide loan for farming, livestock raising and to invest farm machinery/equipments. Table-5.7 Types of Services Rendered to the Farmers by Technicians from Different Agencies.

Name of Agency/Dept. the	Types of service rendered					
technician belongs						
Research station/institution	- Conduct farmer field trial (FFT) and					
	provide other test at local environment					
	Seeds/seedling at reasonable price.					
NGO/INGOs	- Training about agriculture/livestock,					
	primary health and sanitation etc.					
	- Child and adult education					
	- Other construction/improvement and					
	social welfare.					
Rural Devt. Bank/Agri. Devt.	Provide loan for livestock raising &					
Bank	farming.					

5.3.2 Service Received from the DADO/ASC

A list of 14 items regarding the types or kinds of extension services supplied by the DADO/ASC was formulated. The farmer respondents were then asked whether they received these services or not. Farm and home visits by the technicians were received by 42.85 percent of the farmers. Personnel letter were seldom received (3.57%) and office calls were made by more than three-fourth or 76.78% of the respondents. Near about one-half or 48.21 percent farmers reported method and result demonstrations conducted by extension workers in their home/farm or neighborhood. Similarly, farmers' meeting and training classes were attended by almost three-fourth or 69.64 percent and one-fourth or 25.0 percent of farmers, respectively.

Regarding mass communication approaches used by the technicians of the DADO/ASC, a great majority or 92.85 percent of the respondents listened to the information broadcasted over the agriculture program of Radio Nepal and Nepal

Television. This program is broadcast 15 minutes daily from 6:40 PM to 6:55 PM in Radio Nepal and 6:25 PM to 6:40 PM in NTV.

Table	5.8:	Certain	Services	Received	from	by	the	Extension	Workers	from
DADO)/AS	С								

Item	Receiv	ved	Not R	eceived	Don't	know	To	otal
	No.	%	No.	%	No.	%	No.	%
Farm and home visit by the	24	42.85	30	53.57	2	3.57	56	100
Extension Workers								
Personnel Letter from the	2	3.57	54	96.42			56	100
Extension Workers								
Availability of Extension	43	76.78	11	19.64	2	3.57	56	100
Workers whenever needed								
Demonstration	27	48.21	25	44.64	4	7.14	56	100
(result/production/method)								
Presence of Extension worker in	39	69.64	17	30.35			56	100
the Group meetings								
Help in organizing farmers into	22	39.28	33	58.93	1	1.78	56	100
groups and association								
Training in areas of our needs &	14	25	39	69.64	3	5.35	56	100
interests.								
Farmers' field days,	5	8.92	50	89.28	1	1.78	56	100
Achievements days etc.								
Publications such as pamphlets,	19	33.92	36	64.28	1	1.78	56	100
leaflets and new stories								
Documentary and film shows	1	1.78	54	96.42	1	1.78	56	100
Farm exhibition	4	7.14	51	91.07	1	1.78	56	100
Agriculture program of Radio	52	92.85	3	5.35	1	1.78	56	100
Nepal and Nepal Television								
Availability of agricultural	22	39.28	32	57.14	2	3.57	56	100
inputs in time and at reasonable								
price								
Marketing of farm products	19	33.92	35	62.5	2	3.57	56	100

Source: Field Survey 2008

Agricultural extension publications such as pamphlets, leaflets and circulars are primarily designed to bridge the information gap between research institutions and its end-users. These extension publications were received by little more than one-third or 33.92 percent of the respondents. Fewer farmers or 3.57 percent have seen film shows and farm exhibitions.

Extension workers used different approaches to disseminate new farm innovations and information. However, a majority of the farmers did not receive all of these services. Although a combination of these different approaches may be better than a single approach, this does not always guarantee more degree of satisfaction/happiness for the farmers who received only one or two kinds of extension services. For example, a farmer who is regularly visited on in his home or on his farm by the technicians although he could not avail himself of other services might be highly satisfied.

In attempt to determine the farmers' satisfaction from the help and services of the technicians from the DADO/ASC in solving their home and farm problems, it was revealed that one-half of the respondents (49.99%) expressed dissatisfaction and less than one-half (44.63%) of the respondents said that they were satisfied. The rest, 5.53 percent were neutral/undecided.

Level of Satisfaction	Male	%	Female	%	Total	%
Highly satisfied	2	16.67	6	13.64	8	14.28
Satisfied	3	25.0	14	31.82	17	30.35
Neutral/Undecided	2	16.67	2	4.54	4	7.14
Unsatisfied	2	16.67	13	29.55	15	26.78
Highly unsatisfied	3	25.0	9	20.45	12	21.42
Total	12	100	44	100	56	100.00

Table: 5.9 Respondents' Level of Satisfaction with Services Received from Technicians/Personnel of the DADO/ASC.

Source: Field Survey 2008

Overall satisfaction of the services received by the farmers was observed during the study. However, less than one half of the respondents (41.67% male and 45.46% female) were satisfied from the extension services. These services were: farm and home visit by the Extension Workers, availability of Extension Workers whenever needed, presence of Extension worker in the group meetings, agriculture program of Radio Nepal and Nepal Television, demonstration (result/production/method). Like this, one half of the respondents (41.67% and 50% female) were dissatisfied from the services like; training in areas of our needs & interests, Farmers' Field Days, Achievements Days, farm exhibition, documentary and film shows. 16.67% male and 4.54% female respondents were found neutral/undecided in the extension services such as help in organizing farmers into groups and association, publications such as pamphlets, leaflets and new stories, availability of agricultural inputs in time and at reasonable price, marketing of farm products

5.3.3 Perception of Farmers toward the Services

The respondents were asked the question, considering the help or services you received from different agencies/departments in terms of solving your farm problems vis-a-vis increase in agricultural productivity, how pleased or satisfied are you with these services? It was noted that a majority (55.35 percent) of the respondents expressed dissatisfaction with services which they received from different agencies/departments. Less than half of the farmer respondents or 39.28 percent were satisfied; the rest (5.35%) answered "neutral" or "undecided". The main reasons for expressing dissatisfaction were: the services they are receiving were insufficient, low quality of service, unavailability of technicians when they need, lack of services in right time and right place.

Level of Satisfaction	Male	%	Female	%	Total	%
Highly Satisfied	2	16.67	4	9.09	6	10.71
Satisfied	3	25.0	13	29.55	16	28.57
Neutral	1	8.33	2	4.55	3	5.35
Unsatisfied	4	33.33	19	43.18	23	41.07
Highly Unsatisfied	2	16.67	6	13.63	8	14.28
Total	12	100	44	100	56	100

Table: 5.10 Respondents' Satisfaction with Services Received from Different Agencies

Source: Field Survey 2008

Among different types of services rendered by agencies other than DADO/ASC, 39.28 % were satisfied with the training about agriculture/livestock, farmers' field trials provide loan for agriculture and livestock raising. 48.2 % were unsatisfied with the service like adult education, primary health and sanitation as well as other social welfare activities.

5.4. Expectation of the Extension Services from DADO/ASC

Among the services expected by the farmer respondents, visit of extension personnel of DADO/ASC to identify specific problems of the farmer was expected by almost all or 96.42 percent. Farm demonstrations are considered as one of the most effective extension methods where by a farmer can see and observe how improve farming practices are done. In this study, 75 percent of the respondents were highly expected the DADO to put up such demonstrations. Likewise, more than two-third or 71.42 percent of respondents were eagerly expected the DADO to organize documentary and film shows related to improve methods of growing crops and raising farm animals (Annex Table 3).

Publication and distribution of farmers bulletins, posters, pamphlets and leaflets were highly expected by 46.42 percent and one-third (33.92%) expressed

low expectation. The rest, 14.28 percent had no expectations. It was observed that even farmers who were unable to read and write were eager to avail themselves of such reading materials due to the presence of a literate family member who could read these for them.

Farmers' tours/field days, achievement days, may be more educational and expected by more than three-fourth (78.57 percent) of the respondents. Farm exhibitions during local ceremonies such as "Chaite Daishain Mela" provide an opportunity for the audience to realize the benefit of adopting new farm practices. Such exhibitions were expected by 83.92 percent of the respondents including both high and low level of expectation. Regarding the information about where and how to get better seed, seedling, pesticides, fertilizer and breeding bull service at reasonable price, more than four-fifth or 83.92 percent indicated high expectations and near about 1.79 percent indicated low expectation.

More than four-fifth or 80.35 percent of the respondents were highly expected to conduct farmers' meetings in the village where discussions are made on problem and find out the solution. About 80.35 percent of the farmers were also expected the DADO personnel to conduct farmers' training class in areas of their needs and interest. Low expectation of 14.28 percent, 3.57 no expectation and 1.78 percent of undecided was observed for training classes. Almost all of the farmers or 92.84 percent indicated the need of agricultural programs through broadcasting/electronic media. Help in marketing of farm produce profitably and co-ordination of services of different agencies regarding agricultural extension were expected by 78.56 percent and 62.49 percent of the respondent respectively.

No expectation was noticed by 82.14 percent of the farmers regarding new information in farming and solving the farm problems through personnel letter. It was only expected by 17.85 percent. More than one half or 60.71 percent of farmers were highly expected to get the equipments i.e. sprayer, duster, bee-hive at subsidy rate from the DADO.

In summery, the mean score of each of the item which is more than three (except for two item) shows that the majority of the farmer respondents indicated

high expectation of each of the possible services that the DADO could render to them.

Table 5.11: Ranked according to the computed mean expectation score for each item, extension services expected by the farmer respondents from the DADO/ASC:

	MEAN
SERVICE EXPECTED	EXPECTED
	SCORE
Conduct farmers' meeting in the village where discussed on problem and find out the solution.	3.76
Provide information about where and how to get better seed, seedlings, chemicals, fertilizers and other inputs at reasonable price.	3.75
Conduct farmers' training classes in areas of their needs and interests.	3.73
Organize farmers' tour/field days, achievement days, etc. sometimes which are more educational.	3.69
Putting up demonstration project where by farmers can see how improved practices are done.	3.62
Provide new technology & farm practices as per season wise through broadcasting (agriculture program of Radio Nepal and NTV)	3.62
Organize documentary & film shows related to improved method for growing crops & raising farm animals.	3.60
Visit of extension workers to identity specific problems & to help solve them.	3.60
Provide some equipment i.e. sprayer/duster/beehive at subsidy rate & other support to the farmers group.	3.46
Help in marketing of farm produce profitably.	3.26
Help in organizing farmers into groups & association.	3.25
Organize farm exhibitions during local ceremonies such as "Chaite Dashain" which provide an opportunity to see the result of successful.	3.23
Publish & distribute farmers' bulletins, posters, pamphlets or leaflets.	3.19
Provide co-ordination of services of different agencies regarding agricultural extension	2.89
Provide new information in farming and also help in solving the farm problems through personal letters.	2.25

The high expectations for all possible kinds of extension services from the DADO may be due to the fact that present extension services received by the farmer are not of much help in solving their farm problems.

5.4.1 Overall Impact of the Extension Services in the Farmers Community

Overall impact of Extension Services was observed by analyzing the previous condition of the farmers' community and the situation after receiving the extension services. Farmers were not able to utilize the existing indigenous knowledge as well as improved technologies before the service. The volume of farm product was also low because of the traditional and mono crop cultivation system. They were not involved in any organizations/clubs for interacting each other in order to communicate knowledge and skills. Lack of technical knowledge and low quality of seeds and fertilizers were the prevailing problems among farmers' community. Since improved agricultural practices are vital for increasing production and productivity they need to be practiced in the farm. There was subsistence type of cultivation which had become a hindrance for rising economic status. The level of education was low. Farmers were not aware whether there is a presence of extension worker/technicians in their areas. This was the real situation before extension services.

After receiving extension service, farmers were able to maintain their farm satisfactorily, become acquainted with the farm problems and their solutions, acquired knowledge and skills of new technologies related to farming, become aware that they should be involved in groups and advantage of being involved in group activities. Farmers started using improved varieties of seeds and improved agricultural practices. Cropping system and cropping intensity were also changed after extension services. For example, they grew only paddy and wheat/millet before extension services but after they receive such services cropping pattern has been changed in to paddy-vegetables/fruits-wheat/maize. Farmers also started cultivating vegetables in commercial scale which helped increased their household income and self sufficiency. Crop diversification decreased because of commercial type of agriculture. They started sharing knowledge, skills and experiences with in the groups. By using the improved technology/practices, agricultural production and productivity increased and farmers' economic condition boosted up. Because of their increased economic condition, they started investing more on agriculture with improved seeds, fertilizers, farm equipments, insecticides/pesticides. Similarly, most women get self employed in their farm and become economically strong. Their status, role and mobility in the society increased. Farmers' purchasing capacity was also increased and their expenditure could be seen more on agriculture, children's education, family health and sanitation.

5.4.2 Overall Expectation of Extension Services from DADO/ASC

An overall expectation score for each of the respondent was computed. The mean score was 54.43 and standard deviation of 5.14. Respondents were categorized on the basis of their total score. The total score of each respondent was expressive of his high expectation of the extension services from the DADO and vice-versa. It appears that the majority or 62.5 percent of the farmer respondents had high expectation of each service from the DADO.

 Table: 5.12 Distribution of farmers as to their overall expectation of services

 from the DADO

Expectation	Male	%	Female	%	Total	%
High expectation	8	66.67	27	61.36	35	62.5
Low expectation	4	33.33	17	38.64	21	37.5
Total	12	100	44	100	56	100.00

Source: Field Survey 2008

Mean=54.43, S.D. =5.14

Majority of the male and female farmers (66.67 % and 61.36 % respectively)) had high expectation on the services like: Conduct farmers' meeting in the village where discussed on problem and find out the solution, provide information about where and how to get better seed, seedlings, chemicals, fertilizers and other inputs at reasonable price, conduct farmers' training classes in areas of their needs and interests, organize farmers' tour/field days, achievement days, etc. sometimes which are more educational, putting up demonstration project where by farmers can see how improved practices are done, provide new technology & farm practices as per season wise through broadcasting (agriculture program of Radio Nepal and NTV), organize documentary & film shows related to improved method for growing crops & raising farm animals.

Similarly, male (33.33 %) and female (38.64 %) farmers had low expectation in the following types of extension services: visit of extension workers to identity specific problems & to help solve them, provide some equipment i.e. sprayer/duster/beehive at subsidy rate & other support to the farmers group, help in marketing of farm produce profitably, help in organizing farmers into groups & association organize farm exhibitions during local ceremonies, publish & distribute farmers' bulletins, posters, pamphlets or leaflets, provide co-ordination of services of different agencies regarding agricultural extension, provide new information in farming.

5.4.3 Opinion of the administrators and other key personnel of different agencies as to their existing linkage with other Agencies/Departments

The administrators and other key personnel of the DADO and some key personnel of different agencies/departments in the districts rendering agriculture extension services were interviewed to find out the existing linkage and relationship among these institutions. They were also asked for their opinion on how the DADO should go about establishing its extension program in the area.

The agencies (government and non-government) which were performing extension or extension type of activities in the area were the District Development Committee (under the Ministry of Local Development), District Irrigation Office (under the Ministry of Water Resource), Agriculture Devt. Bank, Rural Devt. Bank, Nepal Agriculture Research Council (NARC) and different NGO/INGOs (Li-Bird, Suryodaya Youth Club, RAIDP).

All the above mentioned agencies reported that they have decided on the types or kinds of extension services to be extended in their services area according to the self needs of the clientele. Some mentioned that it was decided by making task environmental analysis and prioritizing the needs of the clientele.

Some of these respondents felt that there were some duplication of services such as conducting farmers' classes and organizing farmers into groups and association & co-operatives. Suggestions provided for the remedy of these duplications were: integration of agencies which have related functions and co-ordination meetings to define the functions and jurisdictions of personnel under each agency.

Respondent representative of the different agencies indicated that they had some kind of relationship or linkage with other agencies. They supplement/complement each other by providing resource persons; sharing their existing facilities such as office space, classrooms; and conducting farmers' training. A memorandum of agreement was generally used to operationalize these linkages. However, at the times of this study, the DADO had no satisfactory linkage with other agencies rendering agricultural extension types services in the area.

Every respondent felt that the DADO should have well linkage with other agencies rendering extension type of services and if it does so, other agencies indicated willingness to cooperate with the DADO through personnel services such as resource persons, technicians, sharing the facilities such as soil testing materials, and providing seeds for trial and demonstration purposes.

CHAPTER VI

SUMMARY AND CONCLUSION

6.1 Summary

The purpose of this study was to ascertain the farmer's expectations of the extension services of the District Agriculture Development Office (DADO), Syangja.

The specific objectives of the study were: to make a socio-economic of the farmers covered by the study; to describe the farmer's problems associated with agriculture; to find out the extension services receiving by the farmers; to explain expectation of the farmers with regard to the agricultural extension services and to analyze the impact of extension services in the community as perceived by the farmers themselves.

The study was conducted in Sirserot Village Development Committee (VDC) of Syangja district which lies in the western part of the country. Fifty six farmers were selected with the help of cluster and random sampling methods. Data were collected by means of interview schedule (structured questionnaire) prepared in English and translated into Nepali during interview.

Farmer's Characteristics

Age of the respondents ranged from 21 to 70 years, with an average of 43.92 years. The majority belong to the age range of 30 to50 years. As far as educational attainment is concerned, more than 46 percent passed the SLC and more than 28 percent of respondents passed Intermediate level of education. Only 23 percent of the respondents had under class 5 of education.

Family structure varied from nuclear to extended and more than 50 percent of total family were under joint family. Rests of others were nuclear and extended family.

While considering the respondents' participation in organization/clubs, more than one third (42.86 %) were found to be participated in local organizations/clubs and rest (57.14%) were not involved in such organizations/clubs.

Respondents' farm size ranged from to 7 Ropani to 60 Ropani with a mean of 23.88 Ropani of land. A few farmers i.e. only 8.92 percent were working on not more than 10 Ropani of land. A very small number were cultivating more than 40 Ropani of land. As to tanurial status, less than one-tenth (7.14%) of them were leaseholder and the majority were owner-operator and share cropper.

The major sources of income were livestock/livestock products, cereal crops and remittance.

Problems in Farming

Lack of technical knowledge in farming is followed by insect/pest and diseases control and high cost of seeds and fertilizers were the most prevailing farm problems.

Low quality seeds and fertilizers available in market, no soil testing, absence of technical personal (JT/JIAs), no irrigation as well as few price of farm products were also frequently mentioned as problems.

Contact with Technicians

More than 80.35 % respondents were aware of the presence of some technicians in their areas to help solve their farm problems. However,

approximately a quarter of the respondents did not know the presence of technicians in the area/village. Moreover, less than 20 % of the respondents did not know the technicians' name, nor could recognize him by face.

Those who had contact with the technicians reported visits by a technician from the DADO/ASC, more than 50 percent of these contacts were initiated by the technician at the farmer's home. A few farmers had contacts with the technicians of the research institutions, department of land reform, and NGOs/INGOs.

Actually more than one-third of the respondents reported that technicians were not available when they needed them. At times when they could not avail themselves of the services of the technicians the respondent, mentioned neighbor, followed by co-farmers and friends, seller of farm chemicals and inputs, relatives as the most frequent sources of assistance. A great majority of the respondents reported that they listened to the Radio Program for the source of information they required.

In an attempt to determine the farmers' satisfaction from the help & services of the technicians from different agencies in solving their farm problems, the findings revealed that generally, the farmers expressed dissatisfaction.

Service Received from the DADO

Regarding the services received from the DADO/ASC, farm and home visit by the technicians were received by 42.85 percent of the respondents. Near about one-half of the respondents reported that method and result demonstration conducted by extension workers in their home/farm or neighborhood. Similarly farmers meetings and training classes were attended by almost three-fourth and one-fourth of the farmers respectively. Agricultural extension publications such as pamphlets, leaflets, booklets & circulars were received by a little more than one-third of the respondents. Fewer farmers have seen film shows and farm exhibitions. More than one-half of the respondents were expressed dissatisfaction from the services rendered by DADO.

Extension workers used different approaches to disseminate new farm innovations and information. However, a majority of the farmers did not receive all these services.

Expectation of Extension Services from DADO/ASC

A great majority or 96.42 percent of the respondents were expected that the visit of extension personnel of DADO/ASC to identify specific problem of farmers and to solve them. Three-fourth of the respondents were highly expecting the DADO to put up result/method demonstration in their farm/home or neighborhoods. Similarly, more than two-third of respondents were eagerly expecting the DADO for organize documentary and film shows related to improve methods of growing crops and raising farm animals. The main reason given by the respondents for expecting extension services from the DADO/ASC was that its personnel were having better technical knowledge in farming and could give new yield increasing farm information and it was accessible to them.

At the time of study, the DADO had no satisfactory relationships or linkages with other agencies rendering agricultural extension type services in the area.

The administrators and other key personnel of the DADO & other agencies/departments rendering extension services in the area also felt the DADO should make good relationship/linkages with others agencies and they also expressed willingness to cooperate with the office if it wants to do so for rendering extension services.

Overall Impact of the Extension Services

Overall impact of Extension Services was observed by analyzing the previous condition of the farmers' community and the situation after receiving the extension services. Farmers were not able to utilize the existing indigenous knowledge as well as improved technologies before the service. The volume of farm product was also low because of the traditional and mono crop cultivation system.

After receiving extension service, farmers were able to maintain their farm satisfactorily, become acquainted with the farm problems and their solutions, acquired knowledge and skills of new technologies related to farming, become aware that they should be involved in groups and advantage of being involved in group activities.

Farmers started using improved varieties of seeds and improved agricultural practices. Cropping system and cropping intensity were also changed after extension services. For example, they grew only paddy and wheat/millet before extension services but after they receive such services cropping pattern has been changed in to paddy-vegetables/fruits-wheat/maize.

Farmers also started cultivating vegetables in commercial scale which helped increased their household income and self sufficiency. Crop diversification decreased because of commercial type of agriculture. They started sharing knowledge, skills and experiences with in the groups. By using the improved technology/practices, agricultural production and productivity increased and farmers' economic condition boosted up.

Because of their increased economic condition, they started investing more on agriculture with improved seeds, fertilizers, farm equipments,

insecticides/pesticides. Similarly, most women get self employed in their farm and become economically strong. Their status, role and mobility in the society increased. Farmers' purchasing capacity was also increased and their expenditure could be seen more on agriculture, children's education, family health and sanitation.

6.2 Conclusion

It is imperative that a growing population must be fed. Added population must be productively employed. Therefore, in an agricultural country like Nepal, the role of DOA/District Agriculture Development Office (DADO) is to provide the necessary skill and knowledge in farming among the farm populace. Likewise, they should upgrade the existing skill and knowledge of employed labor in farming. For these reasons, the department should serve as generators of new yield-increasing farm technology and show windows of modern agricultural practices.

Development of appropriate technology, whether it be designed to assist its users in growing crops or tending livestock, does not by itself enhance agricultural development. The task of agricultural extension in managing communication inputs such that the farmers receive the needed information at the right time, at the right place and at the right contact is inevitable. In this direction, the findings of this study indicate that the present extension service received by the farmers is inadequate to keep pace with the fast growing new farm technology. Farmers, in general, and those residing away from the roadside in particular, were not receiving much help from the extension worker. They had to depend on informal sources of help such as neighbor, relatives and friends to solve their farm problems. Thus, agriculture extension services through DADO/ASC become imperative in an attempt to improve the economic well-being of the populace residing in the area. This study revealed that the majority of the farmers in the area could be characterized as relatively older with less education, maintaining a smaller size of farm to feed their relatively bigger size of family. They expressed high expectations of extension services to be extended by the DADO/ASC in its working areas. They felt that the DADO/ASC personnel were more knowledgeable in improved farming and also easily accessible to them and thus, could provide the necessary knowledge and skill to make their farm lot more productive.

In view of the findings, the kinds of extension services expected by the farmers from the DADO/ASC could be grouped into five broad categories:

- 1. Direct technical assistance in the form of farm and home visit by the DADO/ASC personnel.
- 2. Short training courses in areas of farmers' needs and problems.
- 3. Dissemination of new farm information through individuals, group and mass methods such as conducting farm demonstrations, organizing farmers field days, farm exhibitions, publication and distribution of bulletins, leaflets, pamphlets etc.
- 4. Provide information about where and how to get better seeds, seedlings, chemicals, fertilizers etc. at reasonable price.
- Coordination of services of different agencies related to agricultural extension to enhance a continuous impact on the client system in a unified way.

Information received by the Department of agriculture (DOA) from the extension workers at the field level is reviewed, studied and analyzed. After that if the problem is related to research oriented, they send to the research institutions for appropriate solution. Actually, the extension personnel here is

a mediator whose work is to inform and mobilize farmers in different on going activities/projects.

Therefore, farmers are approached in three ways: directly by the DOA, through DADO personnel and through ASC personnel. Feedback transmission will come either directly from farmers or through the extension workers.

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Annex: 1 Organizational Structure of Agriculture Extension in Nepal



Annex 2: Interview Schedule for Sample Farmers

Name of Respondent:-.... Ward No:.....Village:.... I. Demographic and Socio-economic characteristics 1.1 Age..... 1.2 Literacy: Literate /Illiterate If literate, level of education:..... Total 1.3 Family size: members.......Male:.....Female..... 1.4 Have you taken membership of any organization(s)/clubs? Yes..... No..... If yes, mention the name of the organization(s)/clubs a..... b..... c..... d..... 1.5 Ownership of land, Yes..... No..... If yes, size of land holding.....Ropani 1.6 Tenurial Status: (Check) tenant leaseholder part owner owner operator others (specify) 1.7 Mention your sources of income as of 2007: Sources: Cereal Crops..... Vegetables/Fruits.....

Remittance
Pension
Service
Livestock/Livestock Products
Interest on lending money
Rice Mills
Tea Shop
Other (Specify)

II. Problems in Farming and Contact with Technicians:

2.1 What problems did you suffer in agricultural practices?

<u>Major Crops Grown</u>	Problems Suffered
Cereals (Specify)	
Vegetables/Fruits (Specify)	
Oil seed crops (Specify)	
Cash Crops (Specify)	
Livestock Raising	
Cattle	
Buffaloes	
Goat/Sheep	
Chickens	
Others (Specify)	

2.2 Do you know is there any technicians assigned in your village to help solve your home and farm problems? Yes...... No.....

If yes, do you know his/her name and the agency he/she belongs?

<u>Name</u>	<u>Agency</u>
1	
2	

If you don't know his/her name, could you recognize him/her by face?

If No, what is the reason?

.....

2.3 Do you have any contact with these technicians?

_____Yes _____No

If yes, how frequent was the contact between you and the technicians of the service agencies as of last year (2007)?

Technician/Personnel	Frequency	Who Initiate	ed the	Where	Purpose
	(No.of	contact		(Place	
	times	Technician H	Farmer	of	
	contacted)			contact)	
DADO/ASC					
Dept. of land reform					
NGO/INGOs					
Research centre					

If No, give your reasons. (Check)

..... I don't know the technicians.

..... The technicians do not visit me.

...... Technicians are not available in my area.

..... I had no problem and thus need not to see any technicians.

.....It is use less to contact the technician because he/she can't solve my problems.

..... Technician is too far from my place.

..... Others (Specify)

2.4 Are the technicians available to solve your farm problems when you need them?

.....YesNo

If No, whom do you consult about your problem?

- a. Neighbor
- b. Relatives and friends
- c. Landlord
- d. Others(specify)

III. Agriculture Extension Services Received From DADO/ASC

3.1 What type of services or assistances these technicians render to

you? (Please tell the type of service)

Name of the agency/department	Type of services rendered
the technician belongs	

3.2 Following is a list of the kinds of extension services that the extension workers of DADO could have extended to you. Please check in appropriate columns on the right hand side of each of the services.

S.N.	Items	Received	Not	Don't
			Received	Know
1.	Farm and home visit by the Extension Workers			
2.	Personnel Letter from the Extension Workers			
3.	Availability of Extension Workers whenever needed			
4.	Demonstration (result/production/method)			
5.	Presence of Extension worker in the Group			
	meetings			
6.	Help in organizing farmers into groups and			
	association			
7.	Training in areas of our needs & interests.			
8.	Farmers' field days, Achievements days etc.			
9.	Publications such as pamphlets, leaflets and new			
	stories			
10.	Documentary and film shows			
11.	Farm exhibition			
12.	Agriculture program of Radio Nepal and Nepal			
	Television			
13.	Availability of agricultural inputs in time and at			
	reasonable price			
14.	Marketing of farm products			

3.3 Considering the help or service you received from different agencies in terms of solving your farm problems vis-a-vis increase agricultural productivity, how pleased or satisfied you are with the services? (Check)

> Highly satisfied Satisfied Neutral/Undecided Unsatisfied Highly unsatisfied

IV. Expectation of the extension services from DADO/ASC

4.1 Following is a possible list of extension services that the DADO/ASC could render to the farmer clientele in its working areas. Please indicate the extent to which you expect those services from DADO/ASC in the space provided on right hand side of each item by using the following code:

HE - High Expectation NE- No Expectation LE- Low Expectation U-Undecided/No opinion

S.N.	Item	HE	LE	NE	U
1.	Visit of extension workers to identify specific problems and to				
	help solve them.				
2.	Provide new information in farming and also help in solving the				
	farm problems through personnel letter.				
3.	Putting up demonstration project where by farmers can see how				
	improved practices are done.				
4.	Publish and distribute farmers' bulletins, posters, pamphlets,				
	leaflets.				
5.	Organize farmers' tours/field days, achievement days etc.				
	sometimes which are more educational.				
6.	Organize documentary and film shows related to improved				
	method of growing corps and raising farm animals.				
7.	Organize farm exhibitions during local ceremonies such as				
	"Chaite Dshain Mela", 'Shivratri' etc. which provide an				
	opportunity to see the results of successful adoption of new farm				
	innovations.				
8.	Conduct farmers' meetings in the village where discussed on				
	problems and find out the solution.				
9.	Help in organizing farmers into groups and association in the				
	village.				

10.	Conduct farmers' training classes in areas of their needs and
	interests
11.	Provide information about where and how to get better seed,
	seedlings, chemicals, fertilizers and other inputs at reasonable
	price.
12.	Help in marketing of farm produce profitably.
13.	Provide new technology and farm practices as per season wise
	through broadcasting (electronic media i.e. Radio & Television)
14.	Provide co-ordination of services of different agencies rendering
	agricultural extension.
15.	Provide some farm equipment i.e. sprayer, duster bee hive etc. at
	subsidy and other support to the farmers groups and associations
16.	Other (Specify)

4.2 Considering the help or service you received from the technicians under the DADO/ASC in solving your farm and home problems, how satisfied are you? (Check)



Interview Schedule for Key Informant

Nar	ne: Position:				
Nar	ne of the Agency/Department:				
1.	How long have you been working in your present position? Years.				
2.	What agricultural extension services have you rendered in your service				
	area? (Please list)				
	a b				
	c d				
3.	How do you decide on what extension services should you extend in your				
	service area?				
	a b				
	c d				
4.	How long have you been rendering these services? Years.				
5.	Do you know if there are any others agencies/department which are also				
	rendering agriculture extension services to the farmers in this area?				
	Yes No Don't know				
	If Yes, what type of agriculture extension services do these				
	agencies/department render to the farmer clientele in the areas?				
	Agencies/department Types of services rendered				
	1				
	2				
6.	Do you inform the personnel of other agencies/department about your				
	extension program in your service area?				
	Yes No				
	If Yes, how? (Please specify the means of information)				
	a				
	b				
7.	Do you think there is any duplication of services in agricultural extension				

If Yes what reasons do you think for such duplication?

- a.
- b.
- 8. Do you have any working relationship or linkage with other agencies/department in terms of rendering agricultural extension services in your service area?

...... Yes No

If Yes, what types of linkage do you have? (Please describe)

- a.
- b.
- 9. How did you operate these extension linkages? (Please explain)
- 10. From Agriculture Development Offices, do you think on what kind of services should render and on what basis the DADO should plan the agricultural program for the ultimate farmers? (Please list)
 - a.
 - b.
- 11. Please give your suggestions about how the agricultural extension program can made more effective?

.....

Annex 4: Distribution of farmers to their level of expectations of extension services from DADO/ASC

S.N.	ITEM	High	1	Lov	W	No		
		Exp	ectation	Exp	pectation	Expe	ctation	
		No.	%	No	. %	No.	%	
1	Visit of extension workers to identity specific	36	64.28	18	32.14	2	3.57	
	problems and to help solve them							
2	Provide ne information in farming and also	4	7.14	6	10.71	46	82.14	
	help in solving the farm problems through							
	personal letter.							
3	Putting up demonstration project where by	42	75	8	14 28	5	8 92	
	farmers can see how improved practices are	12	10		11.20	5	0.72	
	done.							
4	Publish and distribute farmers' bulletins,	26	46.42		19 3.92	8	14.28	
	posters, pamphlets or leaflets.							
5	Organize farmers tours/field days, achievement	44	78.57	7	12.5	5	8.92	
	days etc.							
6	Organize documentary and film shows related	40	71.42	11	19.64	4	7.14	
	to improved method of growing crops and							
	raising farm animals.							
7	Organize farm exhibitions during local	24	42.85	23	41 07	7	12.5	
	ceremonies which provide an opportunity to see	2.	12.00	20	11.07			
	the result of successful adoption of new farm							
	innovations.							
8	Conduct farmers' meetings in the village where	45	80 35	10	17 85	1	1.78	
	discussion are made on problems and find out	10	00.00	10	11100			
	the solution.							
9	Help in organizing farmers into groups and	24	42.85	25	44.64	4	7.14	
	association in the village.							
10	Conduct farmers' training classes in areas of	45	80.35	8	14.28	2	3.57	

	their needs and interests.	17	82.02	5	° 02		
11	Provide information about where and how to	4/	03.92	5	0.92	3	5.35
	get better seed, seedlings, chemicals, fertilizers						
	and other inputs at reasonable price.	27	48.21	17	30.35	12	21.42
12	Help in marketing of farm product profitably.	40	71.40	10	01.40	12	21.42
13	Provide new technology and farm practices as	40	/1.42	12	21.42	3	5.35
	per season wise through broadcasting.	18	32 14	17	30 35		
14	Provide co-ordination of services of different	10	52.17	17	50.55	18	32.14
	agencies regarding agricultural extension.	34	60 71	14	25	0	14.20
15	Provide some equipment i.e. sprayer, duster,	54	00.71	17	23	8	14.28
	beehive at subsidiary rate and other support to						
	the farmers' group and associations.						

(Thank you for your kind co-operation in filling up the questionnaire).