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Participatory Approach of extension: Review of Extension Services of Farmer Groups and Agricultural Cooperatives A case study of Nepal



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Abbreviations

AA	Agriculture Assistance
AP	Agriculture Policy
APP	Agriculture Perspective Plan
ASC	Agriculture Service Centre
CATC	Centre Agriculture Training Centre
DADO	District Agriculture Development Office
DCO	Division Cooperative Office
DLSO	District Livestock Service Office
DOA	Department of Agriculture
DOC	Department of Cooperative
DOAE	Directorate of Agriculture Extension
GDP	Gross Domestic Product
FAO	Food and Agriculture Organization
FO	Farmers Organization
FSRE	Farming System Research and Extension
FTA	Farmer Technical Assistant
IRDP	Intergraded Rural Development Project
IDS	Institute for Development Studies
IHDP	Integrated Hill Development Project
JTA	Junior Technical Assistance
JT	Junior Technician
MOAC	Ministry of Agriculture and Cooperatives
NARC	National Agriculture Research Council
NARSC	Agricultural Research and Service Centre
NGO	Non Government Organization
PLAA	Panchayat Level Agriculture Assistance
RAD	Regional Agriculture Directorate
RATC	Regional Agriculture Training Centre
SMS	Subject Matter Specialist
T&V	Training and Visit
VDC	Village Development Committee
WCARRD	World Conference on Agrarian Reform and Rural Development

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Chapter One

1. Introduction

1.1. Farmer group approach of extension

Agricultural extension service is one of the major undertakings of Department of Agriculture (DOA) to educate, disseminate technologies and provide information to the farmers so that they can increase agricultural production and productivity thereby enhancing their living standard. With an aim of providing extension services to the farmers, DOA has been practicing several extension methods and approaches since its establishment in 1951 with support from donors or from the government's own resources. Extension approaches which were practiced before 1990 (see subsection 5.2 for details) gave more focus on the material supports to the farmers rather than motivating and supporting to organize themselves, generate and use of local resources to fulfil their needs.

DOA introduced group approach of extension in 1992 as a decentralized and farmer empowerment approach of extension (Pant, 1992). The main focus of group approach is to help people to help themselves. Farmers are motivated to organize and support with each by their own resources to change in farming and satisfying their farming needs.

After the adoption of group approach of extension, many farmer groups¹ were/are formed by the initiation of District Agriculture Development Offices (DADOs). After formation, groups are registered and/or encouraged to register at the DADOs. The registration of groups at DADOs is to give them informal recognition and to provide extension support services and to promote horizontal expansion of extension services to the members.

Generally, main extension supports of DADOs to farmer groups are: production inputs for horizontal expansion, technical trainings, group management training and regular motivation and encouragement for keeping the groups functional, guiding to develop networking with local service providers to generate resources and strengthen their activities so as to make them self-reliant and to promote farmer to farmer support services.

In group approach of extension, support services are not provided to each and every member of groups rather extension services are provided to the groups and then groups manage to distribute and disseminate technologies and services among the members. For instance, new technology (new variety) is provided to the groups via DADO and ASCs², groups test new technology (variety) in the fields as a result demonstration or minikit demonstration to see whether new technology does suit in their condition or not. If new technology proved suitable (good yield, resistance to diseases and other agronomic characteristics etc) then distributed among members for expanding horizontally. Contrary to top down method of extension, in group method of extension, groups take initiative to disseminate information, knowledge and technology among the members as well as other farmers of the communities.

In the same way, trainings are provided to the members of groups and then trained members are supposed to spread newly acquired knowledge and information to the other members of the groups and then after from group members to other farmer of the communities. Therefore, in group method of extension, extension workers don't visit each and every farmer for extension services and thus group method are considered cost effective and suitable method in the context of shrinking of government budget for extension services and shortage of extension workers.

¹ The groups consist of 20-25 members based on their interests to involve in groups and groups' activities. After formation groups are given certain names, for example, cereal crops production groups, vegetables production groups and fruits cultivation groups etc.

² ASCs are the lower units of DADOs, which are responsible for providing the extension services to the farmers/groups based on the directions and rules of DADO. JTAs/JTs, generally, are the extension workers stay in the ASCs for these kinds of services.

Strengthening farmers' organizations is also focus of group approach of extension. Group management trainings such as record keeping, account keeping, resource generating and leadership development training are provided to the leaders and members of the groups so as to increase organizational capacity of the groups to make them sustainable and self-governing.

After introduction of group approach by DOA, this approach was applied all over the country (in all 75 districts) in order to decentralize and make extension services more effective. So far after the introduction of group of extension, 17,113 farmer groups have been formed and registered under the Department of Agriculture and 712 farmer groups have also upgraded into cooperatives (DOA, 2008) and these cooperatives are registered under the Department of Cooperatives (DOC) under the Ministry of Agriculture and Cooperatives (MOAC).

From very beginning of introduction of group approach, the target of DOA is to strengthen farmers groups organizationally and functionally and to upgrade them into cooperatives because assumption of DOA was/is that when farmer groups are upgraded into cooperatives become more self-reliant and sustainable. Cooperatives are considered more viable and self-sufficient organizations than farmer groups because when groups are upgraded into cooperative can attain legal organizational status. Because of legal organizational recognition, cooperatives can generate more resources by its own activities; can develop connection and networking with services providing organizations to generate more technical and financial resources in order to provide support services their members. Owing to legal status cooperatives can conduct collaborative works with different governments, non-government and private organizations and thus can provide more services than farmers groups to their members in order to satisfying their farming as well as non-farming needs.

Therefore, focus of research is to assess farmer groups and cooperatives from their organizational development and support services to fulfil the needs of the members. In this study, my concern are the farmers groups and cooperatives of around the periphery of the city areas because farmers living around the cities can acquire good profit by commercialization of agriculture and home based income generating activities.

Table 1: Farmer groups, research sites and farming characteristics

S.N	Sites and farmer groups	Farming characteristic
1	Hariyal women farmer group, Imadol	Farmers of this area are small scale commercial vegetable producers. Members of the groups also involve in the commercial vegetable production. Farmers earn 10,000-30,000 Nepali Rupees (133-400 US \$) per year from the vegetable production. Areas has problem of irrigation facility so that farmers are not in condition to promote the commercial vegetable production abundantly. Other possible of farming of this area is poultry farming.
	Bishakhunarayan fruit and vegetable farmer group, Bistachhap, Godawari	Farmers of this area are small scale commercial fruit and vegetable producers. Most of members of groups involve in the small scale fruit production. Annually farmers earn 7,000-20,000 Nepali Rupees (93-266 US \$) from fruits and vegetable production. This area has possibility of promoting fruit cultivation and farmers also want to promote the fruit cultivation
	Naudhara women farmer group, Godawari	Farmers of this site are not involving commercial farming. Also area doesn't have good irrigation facility; This area has possibility of promotion of poultry farming and livestock rearing.
	Anandeshore fruit and vegetable farmer group, Godawari	Farmers of this area involve in the cereal crop production for home consumption. The area has the problem of irrigation facility so farmers have not started commercial vegetable production. But the area has the probability of goat farming.
	Saptarishi women famer group, Bhunmati	Farmers of this area involve in the cereal crop production. This area also doesn't have irrigation facility. So, in this area there isn't possibility of expansion of commercial vegetable production
	Kalidevi wonen farmer group, Lele	Farmers of this area involve in commercial vegetable and flower production. Members of this group also involve in the vegetable

		and flower production. Member of this group earn 10,000-60,000 (133-800 US \$) Nepali Rupees annually. Farmers of this area want to promote vegetable and flower production and area also has potentiality of expansion of vegetable production.
	Ganesh seed production farmer group, Lamatar	Farmers of this area involve in cereal crops production for home consumption. Farmers don't involve in commercial farming at all. However, there is possibility of promoting small scale vegetable production.

AS summary, majority of research sites where groups are formed don't have commercial vegetable farming and also less possibility of expanding of commercial vegetable farming due to inadequate irrigation facility. However, farmers can adopt other agricultural activities such as livestock farming, poultry rearing and rainy season commercial vegetable production to promote their income and bring changes in their lives.

Table 2: Agriculture cooperatives, research areas and farming characteristics

S.N	Place and Name of cooperatives	Farming characteristics
1	Bishnudevi multipurpose agriculture cooperatives, Godawari	This area is commercial vegetable production area. Most of the farmers of this area are engaged in commercial farming. Due to availability of irrigation, commercial farming can also be promoted. Farmers are also interested to promote the vegetable production
2	Sadvav multipurpose agriculture cooperatives, Lubhu	This area also commercial vegetable production area and most of the farmer of this area involve in the commercial vegetable production. However, farmers have problems of selling the produced vegetables
3	Sidhiganesh women farmer cooperatives, Lubhu	In this area farmers aren't involved in the commercial vegetable production but engage in small scale domestic activities like as pickle production
4	Mushroom producer farmers cooperative, chagaun	This area is famous for mushroom production and most of the farmers of this area are engaged in commercial mushroom cultivation. This area has good potential for promotion of mushroom production
5	Vegetable and mushroom producer farmers cooperatives, Chappaun	This area is commercial vegetable and mushroom production area and where most of the farmers involve in commercial vegetable production

As summary of research sites, most of the areas where agriculture cooperatives are established are commercial vegetable production areas and most of the farmers of these areas are also involved in commercial vegetable production and these areas have potentiality of promoting vegetable farming.

One of the reasons of DOA focusing on upgrading groups into cooperatives is to promote commercial cultivation and to raise living standard of farmers. For commercial production more production inputs, technical advices and selling of products are considered important. Cooperatives can promote commercial production by providing credit facility, technical advices and marketing facility to the members.

1.2. Statement of problem

DOA adopted group method of extension in order to make extension service less costly and more effective. Assumption of DOA was that when groups are formed, group members help with each to bring change in farming and fulfil their immediate needs and in that case low support of extension services would be sufficient solve the farmers' problems. Additionally, DOA's emphasis was/is to covert the groups into cooperatives. DOA's focus was that when groups are converted into cooperatives became more independent and self-reliant than groups because cooperatives get legal status and could generate more resources from different sources and can provide support services to the members to fulfil their needs more effectively than farmer groups.

Therefore, in this context, concern of DOA is to know present organizational strength and value of farmer groups and cooperatives; what kinds of support activities and collective works

farmer groups and cooperatives are doing. Are efforts and supports of cooperatives more valuable and effective to bring change in farming than groups and then what is important groups have?

1.3. Aim of the Internship

This study tries to explore present organizational strength and value of farmer groups and cooperatives have for helping farmers to meet their farming and social needs and what additional support DOA and DOC need to provide to strengthen activities and support of farmer groups and cooperatives.

The findings of the study would be good lessons to the DOA while formulating new programs concerning to formation and mobilization of farmer groups. The results of the study would also be valuable to MOAC while formulating and reformulating new policies and strategies about group approach of extension and agricultural cooperatives. Further more; the outcome of the study would be applicable to the DOC to know what sorts of services the cooperatives are providing to members in order to fulfil their needs and what supports cooperatives are in need to better off their collective efforts.

The main aims of the internship are:

1. Exploring the organizational status and value of farmer groups for promoting extension services and satisfying the needs of members,
2. Exploring the organizational status and value of agricultural cooperatives for promoting extension services and satisfying the needs of the members.

Chapter Two

2. Theoretical Understanding

2.1. Top down approach of extension

The dissemination of technology used to be organized as a linear and stepwise process: knowledge was acquired and/or generated via research, which was then disseminated by extension to the end users, and finally the end users were expected to apply this new knowledge (Hall and Yoganand 2002, cited by KIT, 2008). In this authoritarian approach (Van den Ban and Hawkins, 1996), the mode of technology transfer was top-down. This paradigm of extension was prevalent in colonial times, and reappeared in the 1970's and 1980's when Training and Visit system was established across Asia (Wikipedia³).

The top-down approach of extension focuses only to production innovations (*more focus to increase production*), not to promote local knowledge and capacity. Thus the local capacity and knowledge is marginalised, trivialised, subordinated or ignored in top-down approach (Vanclay and Lawrence, 1995, cited by Murray, 2000). Therefore, the top-down model of extension is increasingly seen as an outdated model of extension (Petheram and Clark 1998, cited by Murray, 2000). In this context, an alternative approach, participatory approaches, of extension put forwarded to encourage farmer participation in extension services (Vanclay and Lawrence, 1995, cited by Murray, 2000).

2.2. Bottom up approach of extension

In participatory method of extension, farmers fully participate in providing extension services to the members for enhancing agriculture productivity. Participatory approaches build upon farmers' capacity to generate resources to fulfil their needs by their own means. Campbell and Junor (1992, cited by Murray, 2000) also states that the participatory approaches are considered user driven method of extension. Users have responsibility which services to demand from the service providers and how to distribute among the users.

The main aim of participatory approach is to improve local people's capacity to make use of their knowledge while adapting new technologies (Kaburire and Ruvuga, 2008). Therefore, Black (2000) argues that participatory approach is termed as farmers' empowerment approach of extension because this approach strengthens local farmers groups by motivating them to be self-reliance and self-sufficient.

The participatory approaches are also considered more cost effective because as describes by Van den Ban and Hawkins (1996) farmers and their organizations share the cost of extension services that is to say farmers and their organizations directly involve in the delivery of extension services. That is why extension and research organizations of different countries are promoting participatory approaches due to shrinking of government fund on the extension services (KIT, 2008).

Concerning to participatory approaches here is an old Chinese proverb which has been used by many development organizations says "by giving people a fish they can eat for one day, but teaching them how to fishing they can eat for the rest of their life" (Van den Ban and Hawkins, 1996). The main aim of participatory approaches is to develop the skills and capacity of the local people so that later on they can become self-reliant by using the acquired knowledge and skills and also using their own local resources.

2.3. Farmers' Organizations (FOs)

Farmers' Organizations (FOs), present a highly diverse picture: from the local farmer groups to cooperatives; different kinds of unions; farmer-initiated federations as well as market-driven

³ Retrieved on 24 March, 2009, from: (http://en.wikipedia.org/wiki/Agricultural_extension)

farmers' groups (for details see in table 1). FOs are membership-based i.e. they are composed of as well as run by farmers themselves (KIT, 2008).

Table 3. Examples of the most common criteria for classifying farmer organizations

Criteria	Variables
1. Origin	1a. As an autonomous organization in reaction to constraints or opportunity: emerging from the local community or self-emerging. 1b. An organization created by outside interventions (externally created : government, private sector, NGOs)
2. Formal and Legal status	2a. Informal: not registered with the relevant authorities: local farmer groups, producer groups: Community-based or commodity-based organizations, 2b. Registered under the various legislation and facilitated by the relevant authorities: 2b1. Association (<i>registered under the Home Ministry</i>), 2b2. Cooperatives (<i>registered under the Agriculture or Cooperative Ministry</i>), 2b3. Unions (<i>Registered under the Labour Ministry</i>)
3. Membership base	3a. On the sub-national basis: related to an administrative entity 3b. On the basis of farm size and market orientation: 3b1. Large scale agriculture business farmers; 3b2. Small scale commodity farmers and/or subsistence- oriented family farms; 3c. On the basis of farming system Agriculture, livestock keeper, mixed farming, 3d. On the basis of social groups: Gender (male groups/female group/mixed groups)
4. Functions, purpose and services provided	4a. Functions: 4a1. Economic, 4a2. Social, 4a3. Representation such as defending interest, lobbying and advocacy, 4a4. Communication, sharing of information and capacity building 4a5. Coordination 4b. Purpose: 4b1. Single purpose: specialized in one commodity, activity 4b2. Multipurpose 4c. Services provided to members: 4c1. Inputs supply; 4c2. Marketing of products; 4c3 access to new technologies and 4c4. technical and management training
Scale and level of operations	5a. Village/district, and, 5d. International 5b. Province, 5c. National

Source: adapted from (Beaudoux and Nieuwkerk, 1985; Bebbington and Thosmpson, 2004; Bosc et al, 2003; Gubbels and Koss, 2000; Pesche, 2001 and Messer and Townsley, 2003 cited by Wennink, Netherlof and Heemskerck, 2008) .

As said by (KIT, 2008) the role of FOs in agricultural innovations goes much further than simply participating in and contributing to extension services, for example, sharing of experiences for learning purposes and providing complementary services (e.g. credit facility, inputs, marketing of agricultural product etc). Participation of farmers' organizations in research and extension activities makes these services more responsive to farmers' needs, and considered appropriate to the overall agricultural research and development. Similarly, Van den Ban and Hawkins (1996) also argue that participation of the people and/or their

organizations in the development programs is often seen as a way to make these programmes more successful; therefore, these organizations are recognized as a key stakeholder in rural development. In the same line, Kaburie and Ruvuga (2008) also state that FOs have significant additional potential to make the research and extension agenda more relevant to farmers' needs and indeed in bringing about the desired changes in agricultural productivity, income and sustainability. So, use of FOs in the extension and research services is more useful to fulfil the farmers' actual needs.

2.4. Group Approach of Extension

The group method of extension was first advocated in the World Conference on Agrarian Reform and Rural Development (WCARRD) organized by FAO in Rome in 1979. The Tenth session of the Committee on Agriculture (COAG) had suggested different governments encourage the formation of small informal groups of rural people as part of larger formal structures. This was mainly for increasing the efficiency of delivery of development services to small farmers and increasing their capacity to receive such services (Basnyat, 1991). Garforth and Oakley (1985) also mention about group approach and explained that the widespread use of Small Farmer Development Programme based on group method was basically initiated in Southeast Asia in the 80s and also prepared the manuals for its operation subsequently. Therefore, since the 1980s, farmer/farmer groups' participation in agricultural knowledge generation and providing extension services i.e. research, extension and training has been a key issue (KIT, 2008).

Garforth and Oakley (1985) further emphasize over the group method of extension rather than individual method and justify it by explaining that the group methods offer greater coverage of targeted population, more cost effective, offer reflective learning environment (*farmers can listen, discuss and decide upon involvement in the extension activity*) and provide opportunity to the farmers for collective action for their benefit.

As said by Eashman and Uphoff (1984, cited by Pant, 2002) the group approach is related to the concept of local organization and peoples' participation in the development activities. Farmer groups' participation in the extension activities assists in building local capacity that is say to develop decision making capacity and make them self-reliant. Furthermore, Sen (1993, cited by Pant, 2002) give enough attention to group approach for human resource development that is to organize farmer themselves and to develop their own capacity for generating resources and to solve their problems. Additionally, Uphoff (1991, cited by Pant, 2002) point out that the farmer group approach is for sustainable agriculture development through farmers' participation in the extension services.

Furthermore, Madukwe (2006) explained that the farmer-to-farmer dissemination of knowledge is amplified in group approach of extension rather than only imposition of extension services either by government or NGOs. In group approach, the extension service packages are provided to the group and the group manage to apply the new package (new technology, advices, new information etc.). Finally, the groups spread the technology horizontally among members as well as other farmers of community. In the group approach, government's role is basically to facilitate, catalyze and encourage farmers to solve their problems by their own local efforts, local knowledge and local resources.

Therefore, group method, one of the participatory approaches, is increasingly used in agriculture research, extension and other development activities Kumar (1987, cited by IDS Workshop, 1987 In: Chambers, Pacey, Thrupp, 1989). Cornwall (1994, cited by Murray, 2000) states that participatory group approach has become increasingly attractive in different part of the world due to its efficacies and cost effectiveness. For instance, in Australia over the last 10 years the number of grower-led groups engaging in extension has increased rapidly (Gianatti and Carmody, 2007). Similarly, in the African countries, Benin, Tanzania and Rwanda, the use of group approach is increasing due to governments' decentralization policies and shrinking of extension departments' budget for the extension services. The farmer groups are, now more than ever, actively involved in agriculture development KIT, 2008).

2.5. Extension Approaches of Nepal before 1990

First, traditional approach of extension is the oldest one which based on the Trickle down theory of diffusion. This model is termed as the linear adoption or diffusion model (Rogers, 1983; cited by Black, 2000). This approach of extension was prevailing all over the country before 1975. In this approach, the extension workers (JTs/JTA⁴) had to select or identify the local progressive farmers (leader farmers) called Agricultural Assistants (AAs⁵), who used to act as a contact point for introducing technologies in the communities. It was regarded that the rate of technology transfer was very slow in this approach. Because AAs were not active in disseminating the technologies as they had feeling that they were paid very poorly by the government. Likewise, this approach was considered very costly as government had to spent huge amount of money to AAs who were not regular staff of extension organizations (Basnyat, 1991). Due to ineffective in technology diffusion and costly, this method was rejected and other approaches were adopted.

Training and Visit (T &V) approach of extension was introduced in Nepal in 1975 through technical and financial support of World Bank and UNDP (Basnyat, 1991) to make the extension services more effective. The Panchayat/Village Level Agricultural Assistants (PLAAS⁶) or Contact Farmers were appointed on a yearly contract. First the extension workers used to carry new technology from the district level and then they used to handover such technologies to the PLAAs (Contact farmers) at the village level. After getting technologies, messages and information by the extension workers, PLAAs used to deliver to other farmers of the community. One of the critics of the T&V system was its high cost in the extension services: regular trainings to the extension workers, regular visit by the extension workers to the PLAAs. Besides this, PLAAs had low motivation because of low remuneration. Due to high cost, this approach couldn't continue after the donor retreat.

The Intergraded Rural Development Projects Approach (IRDPs) were brought into practice in Nepal since 5th five year plan (in 1975) with assistance of different donors. The majority of the extension support services of IRDPs were consisted of: seed, fertilizer, and plant protection materials and credits. The IRD is a quite complex and multidimensional model and the success of which depends on interaction of multiple factors and performance of different entities (USAID, online⁷). The IRD projects rather costly and more time consuming as well. Thus these projects couldn't be continued by the government's own budget after the retreat of the donor supports.

Farming System Research and Extension (FSR&E) was introduced in Nepal in 1977 by financial support of different donors. The special significance of the farming system approach was to generate low cost technologies right in the farmer's fields. The assumption of this approach is that the farmers adopt and help to disseminate the technologies if they are generated on the farm with their active participation. The JTs, JTA, PLAAs and Tuki used to take the responsibly of providing technologies to the targeted farmers (Basnyat, 1991). The FSR was the responsibility of National Agricultural Research and Service Centre (NARSC) in general, whereas the responsibility of extension service was of DOA and DOA used to organize the extension system for spreading the technologies. There was very weak linkage between research and extension. Therefore, this system could not function as expected. That is why, after the projects were withdrawn by donors, unfortunately, this system also could not continue in the country.

⁴ Junior Technicians (JTs) and Junior Technical Assistance (JTAs) are the extension workers, mostly work in the field level to provide extension services to the farmers. They are also called frontline extension workers.

⁵ AAs are progressive farmers (have more knowledge and experiences than the normal farmers) and for the time being appointed as field level contact point for disseminating the technologies and information. But they are not permanent government extension workers.

⁶ PLAAS were the progressive farmer, who were, in general, appointed as a contact farmers, on a yearly contract basis with remuneration of 300 (2.5 \$) per month. They were not actually government employees.

⁷ Retrieved on 23rd March, 2009 from: <http://armenia.usaid.gov/upload/File/integrated-rural-development-usaid-armenia.pdf>

Tuki Approach of Extension was initiated in Nepal in 1977 by the Integrated Hill Development Project jointly undertaken by government of Nepal and Swiss Government. The Tuki system worked on assumption that the trained local farmers can be best utilized to improve the technical knowhow of the farmers and in delivery of improved agricultural technologies in the communities. The technology can be transferred faster if the promoters (local farmers) themselves become exemplar by demonstrating the potential technology in their fields. The government used to provide incentives to the Tuki based on amount of inputs they used to sell to the local farmers. The incentive to the Tukis was too high and this couldn't sustain by the government's own fund. Therefore, after the termination of project, Tuki approach was also disappeared.

Block Production Program Approach (BPPA) was initiated in Nepal in fiscal year 1981/82 at the several cropping system research sites for providing necessary technical services to the farmers in a coordinated way so as to facilitate them to adopt the technologies generated through the work of cropping systems (Basnyat 1991). The program was implemented by government budget and simply intended to support the cereal crop production programme in specified potential districts. The extension services were basically of production materials such as inputs and credits. The assumption of this approach was that production and productivity could be increased to a greater extent if suitable production inputs and monitoring and supervision are provided to the farmers. But later on this couldn't be attained due to many constraints especially of unavailability of manpower and limitation of budget. The programme couldn't sustain in the long run due to high cost of providing production inputs to the farmers.

These different extension approaches used before 1990 emphasized more on the government's decisions and actions, and the extension services were mostly consisted of providing production inputs and technical advices (CATC, 2002). Additionally, these approaches have given less attention to the active participation of farmers in the planning and implementation of extension services based on their needs, capacities and local resources. These models focused more on the individual farmer's farm and home visit, and thus considered costly, time consuming, and considered could cover only limited numbers of farmers. In this context, there was sought of more demand-driven, participatory and cost effective approaches of extension

2.6. Cooperatives in the context

Cooperative is an autonomous association of persons united voluntarily to meet their common social and cultural needs and aspirations through jointly owned and democratically controlled process. The cooperatives are based on the values of self-help, self-responsibility, democracy, equality and solidarity⁸. Similarly, a cooperative is a self-help business enterprise, voluntarily owned and democratically controlled by its members to perform services to the members on a non-profit or cost basis (Whitney, 1990, cited by Hakelius, 1996). The cooperatives are for the welfare of members and/or to fulfill the needs of the members and run and managed by the members themselves.

Throughout the history rural smallholders have formed various forms of associations (or cooperatives) to confront access barriers to the market (Staatz, 1987; Sexton and Iskow, 1988; World Bank, 2007, cited by Francesconi, 2009). Nonetheless, the cooperative as a modern business started in Britain in 1844 when Robert Owen set up the First Cooperative Shop named as a "Rochdale Society of Equitable Pioneers" to fulfill the needs of food items of the members and community. Based on its success, the Rochdale set the policies which became a model for other cooperative endeavors to follow (Oleson, 1999).

Nowadays the cooperatives have spread over more than 100 countries of world and working in various sector and activities encompassing agriculture, fishing, housing, banking, insurance area, etc (Shrestha, 2007). In the United States, dairy cooperatives control about 80 percent of dairy production. In France, nine of ten producers belong to at least one cooperative, with

⁸ Retrieved on 27th March, 2009 from: http://kribhco.net/english/what_coop.htm.

market share of 60% percent for inputs and 57% for output (Francesconi, 2009). Additionally, according to Francesconi (2009) in the 1960s many developing countries initiated cooperative development programmes, often to facilitate the distribution of subsidized credit and inputs. Now, it is estimated that 250 million farmers in the developing countries participate in agriculture cooperatives. For example, in India in 2005, 12.3 million people were the members of India dairy cooperatives. Indian dairy cooperatives accounted for 22 percent of the milk produced in India. It is estimated that over 50% of global agriculture output is marketed through cooperatives (Shrestha, 2007). However, still cooperatives in developing countries are typically village-level and community based organizations (Francesconi (2009).

An agricultural cooperative, also known as a farmers' cooperative, is a cooperative where farmers pool their resources in certain areas of activity (Wikipedia⁹). As quoted by (Oleson, 1999) agricultural cooperatives are typically classified according to the three major functions they perform: marketing, supply, and services. Agricultural cooperatives are created in situations where farmers cannot obtain essential services (*inputs, technical services, marketing of products*). A practical motivation for the creation of agricultural cooperatives is sometimes described as "overcoming the curse of smallness". A cooperative, being an association of a large number of farmers, acts as a large business entity in the market, reaping the significant advantages of economies of scale that are not available to its members individually. Farmers don't always have the means of transportation necessary for delivering their produce to the market, or small volume of their production may put in an unfavorable negotiating position. Cooperative acts as an integrator, collecting the output of its small members and delivering it in large aggregated quantities downstream through the marketing channels (Wikipedia).

In addition to that a farmer may be charged relatively high interest rates by commercial banks, or may refuse to provide credit due to lack of collateral (guarantor). But cooperatives can receive loans at low interest rates from commercial banks because of its large associative size and then distribute loans to its members on the strength of mutual or peer pressure guarantees for repayment (Wikipedia).

2.7. Cooperatives in Nepal

In Nepal, modern cooperatives began in 1953 after the establishment of the Department of Cooperative under the Ministry of Planning, Development and Agriculture (*now MOAC*). The first cooperative formed in Nepal was credit cooperative societies in the Rapti Valley of Chitwan district as a part of flood relief and resettlement programme. When 13 credit cooperatives societies were established in 1956 then the development of cooperative got momentum. The Cooperative Act 1959 and Cooperative Rule 1961 provide legal framework and basis for registering the groups into cooperatives. Nonetheless, the Cooperative Act 1992 has provided a more liberal, democratic legal framework and congenial environment for cooperative growth in the country (Shrestha, 2007).

The Department of Cooperative (DOC), one of the Departments of MOAC, is responsible for providing information, registering, keeping records of, monitoring and evaluating the activities and performance of cooperatives. The DOC has Division Cooperatives Offices (DCO) at the district level, which are accounted for registering the groups in cooperatives. The DCOs provide information to the groups how to register and what are the required documents for registering the groups into cooperatives. For any group to register into cooperative should submit an application form with the name list of at least 25 members and their signatures, proof of local residents, decisions of two consecutive group meetings indicating that all members of group are interested to convert the group into cooperative, passport size photo of members, two copies of constitution (*rules and regulation indicating name of organization and how other activities are/will be performed*) and bank account and share of 100 Nepalese

⁹ (Online) from: http://en.wikipedia.org/wiki/Agricultural_cooperatives, retrieved on 27th March, 2009

Rupees (1.25 cent US dollar) of each and every member of group etc. (DOC, 2008).

There are different types of cooperatives in Nepal. These are: agriculture cooperatives (*dairy farmer cooperatives, small farmer cooperatives, tea producer cooperatives, coffee producer cooperatives, bee keeper cooperative*), saving and credit cooperatives, herbal cooperatives, science and technology cooperatives, consumers cooperatives, multipurpose cooperatives and others. Altogether there are 11,301 cooperatives. But there are only 1751 agricultural cooperatives registered under the DOC (DOC, 2008¹⁰) even though 65.6% of people are farmers and 39% of Gross Domestic Product (GDP) is contributed by agriculture sector (MOAC, 2008). However, all of these agricultural cooperatives registered under the DOC were not only converted/upgraded from the farmer groups formed by the initiation of DOA/DADOs. Some cooperatives registered by the initiation of NGOs, some by self-motivated farmers themselves, some formed by the initiation of private organizations (*Seed Company, agro-vets etc*).

There are only 712 agriculture cooperatives registered under DOC which were upgraded from the farmer groups formed under DOA/DADOs. Nevertheless, there are 17,113 farmer groups (FGs) formed/reformed and recorded under DOA (*in the 75 DADOs of the country*) (DOA, 2008) which can be/should be converted into cooperatives sooner or later because the ultimate target of DOA is to convert the farmer groups into cooperatives (ABTRACO, 2007, Sharma, 2008).

The cooperatives are considered more sustainable and independent than farmer groups (Pant, 2002) because it can get support from the different government, non-government and private organizations due to its legal organizational status and diversified sources of income. Farmer/producer groups are informal local organizations, and have no legal status but cooperative are legal organizations (Thapa and Koirala, 2006). The cooperatives can get legal protection by the Cooperatives Act, rules and regulations of MOAC but there is no legal protection mechanism and/or Acts or Rules to the local farmer groups. Thereby cooperatives can involve in different services or member support oriented activities (*selling of production inputs, marketing of agricultural produce, saving and credit activities etc*) legally. In addition, the cooperatives can get loan at lower interest rates from the government and private organizations to run different agriculture related activities. Such loans can also be given to the members to initiate and widen income generating activities. That is why the cooperatives can be stronger organizationally, functionally and financially than the groups which enable them to be more competitive and self-sufficient farmers' organizations.

The Tenth Five Year Plan (2002-07) and Agriculture Policy (2004) of Government of Nepal have aimed at promoting development of cooperatives in order to promote the commercialization of agriculture and finally escalate the living standard of farmers (Bajracharya, 2006). In regard with the policies, the MOAC and DOA have given emphasis to transform farmer groups into cooperatives to develop them sustainable farmers' organizations.

2.8. Research questions

1. What organizational status and value farmer groups have for promoting the extension services and satisfying the needs of the members?
2. What organizational status and value agricultural cooperatives have for promoting extension services and satisfying the needs of members?

¹⁰ Retrieved on 29th March, 2009 from <http://www.deoc.gov.np/>,

Chapter Three

3. Research Methodology

3.1. Research site

Lalitpur district was research district. From the Lalitpur, DADO four ASCs namely: Lele, Lubhu, Bhurtibang and Chapagaun were selected for the collection of data. These ASCs represent the DADO of Lalitpur.



Figure 1: Research site

3.2. Research units

The research units were the farmer groups and agriculture cooperatives. In total 7 farmer groups and 5 agricultural cooperatives were selected from these research sites.

3.3. Data collection procedure

In this study, I used multi-methods for collecting the data in order to ensure reliability. Especially, I used focused group discussion, individual interviews and content analysis.

While conducting focused group discussion and individual interviews, I used questionnaires checklist and voice recorders. Before using voice recorder, I took permission from the respondents. I realized that the voice recorders didn't affect in answering the questions rather the respondents were very open and frank to answer the questions and queries.

3.3.1. Focused group discussion

I conducted focused group discussion in order to get general views of the members of groups and cooperatives. In a whole group (focused group) it is easy to get real picture because answers come from different corners. No body can tell a lie in front of majority of members. While discussing with farmer groups (focused group), there were 10-30 members at a time including leaders. But only 4-10 members used to speak/give answers of my questions and/or actively participated in group discussions. From 7 farmer groups, in total, 42 members actively participated in the focused group discussion.

While in the cooperatives, there were 3-10 persons in a discussion forum (focused group). But in case of cooperatives most of the participants participated in the group discussion. In focused group discussion, I used to spend 1:30 -2:00 hours time for a group and cooperative.

3.3.2. Informal and semi-structured interviews

Besides focused group discussion, I also conducted individual interview with leaders and members of both groups and cooperatives. Why did I do the individual interview? Via focussed group discussion, it was not possible to gather in depth information and knowledge about activities of groups and cooperatives and leaders' and members' perceptions. Such personal interviews lasted for 30-60 minutes depending upon the interviewed person and need of information. I did a lot of probing in the individual interview.

My individual interview was two parts: one was with the leaders and members of groups and cooperatives and another was with the officials of DOA, DADO, ASCs and DOC, DCO.

With leaders and members of group and cooperatives

I talked with 21 members including leaders (*president, vice president, treasures*) from the 7 farmer-group and 15 members including presidents and secretaries from the 5 cooperatives.

With the officials: The officials with whom I interviewed are as follows:

- Agriculture technicians of DADO of Lalitpur: 3 persons (1 extension officer, 1 JT and one chief of DADO)
- Frontline extension workers of ASC under DADO Lalitpur in total: 6 (JTs, JTAs),
- Officials of DCO, Lalitpur: 2 persons,
- Extensionists of DOA: 3 persons, extension officers+ senior extension officer
- Officials of DOC : 2 persons

3.3.3. Observation

I observed the following activities:

- Meeting of farmer groups and cooperatives,
- Written decisions of groups and cooperative
- on the minute books,
- Attendance of group members on attendance books,
- Written rules and/norms of the groups

3.3.4. Secondary data collection

Besides the primary of data, I also reviewed the policy and strategy papers, annual reports, study reports, workshop reports etc of DOA and DOC.

3.4. Data collection technique

3.4.1. Sampling techniques

The sampling technique was purposive sampling: Purposive random sampling

- From the lists of farmer groups of the district, I selected the farmer groups and cooperatives with help of front line extension worker. I selected active and as well as inactive farmer groups and cooperatives based on the information of frontline extension workers
- I selected extensionists of DADO, DOA and officials of DCO and DOC purposively and using the snow ball sampling.

Chapter Four

4. Organizational status and value of farmer groups

4.1. Organizational status of farmer groups

Focus of this part is to measure the organization status of farmer groups: initiation of group formation, objectives of the groups, group constitution, and group fund, legal status of groups and connection and networking of groups.

4.1.1. Initiation of group formation

Organising farmer groups for the sake of organising or organising because it is requested by outside organization will not necessarily bring the results expected. Successful groups take some planning, thought and careful consideration of what form they should take in order to reach their goals (LEISA, 2007). Paulus (1989), cited by Pant, (2002) states that people join in groups due to several reasons: to satisfy psychological or social needs; to achieve goals that may not be attained as individual; to get knowledge and information not be available individually; to meet need for security and to get common positive social identity. Primary focus behind group formation is to serve members' interests and enable them to make decisions independently. External drive of group formation often led to unbalanced farmer groups, and such groups remain dependant and unstable (Lema and Kapange, 2008).

In my case most of farmer groups were formed by the initiation and/or motivation of extension workers, and the reason of majority of the farmers to involve in groups was to get support from the extension services. Every year the DADO has annual target of group formation. Therefore, the extension workers take initiation to form the groups. When I asked to the members and leaders of farmer groups, why did you join the groups? They said, "JTAs/JTs advised us to involve in groups if we want to get extension services from the DADO. Therefore, most of farmer groups were not formed by the initiation of farmers and farmer involved in the groups owing to hope of getting supports from the extension organizations. Therefore, these groups are not effective in organizing activities and most of the groups have feeling that groups were formed to provide the extension services by the DADO. After the introduction of groups approach, joining in groups is compulsory to the farmers to get extension services from the DADOs.

4.1.2. Objectives and targets

Effective farmer groups should always have clear objective. Devkota (2000) indicates that local farmers groups which have clear vision and objectives have greater chance of faster development. Similarly, Bo, Winn and Sint, (1999) emphasize that clear objective is the feature of successful groups".

In my case, I found that majority of farmer groups were formed to meet the targeted objective of the extension organizations, and reasons of majority of farmers to involve in groups were to get support from the extension services. Therefore, most of the farmer groups don't have definite objectives to be achieved in certain duration. Formation of group was more target oriented rather than result oriented. When I asked to the group leaders and members, what is the ultimate goal of your group? They said "we don't have any final goal and target". Most of groups don't have aim and targeted activities.

Interestingly, though groups don't have any written objectives and definite targeted tasks, all of groups are organizing meeting and collecting membership fee regularly. They have informal target of collecting money and providing credit to the members to fulfil their immediate needs and maintain identity in the society. However, they don't have any fixed target and goal. Due to lack of fixed objectives, majority of groups don't have other fixed schedules of doing activities. However 28.57% of groups have objectives and annul target of works, for example, raising vegetable seedlings collectively for commercial cultivation and buying agricultural inputs and selling of fruit collectively.

4.1.3. Group constitution

Effective and functional farmer groups should have group constitution which guides day-to-day activities and develop ground rules for the groups. Such constitution should be developed by the consensus of all group members (CATC, 2002). Farmer organization needs to have clear rules and responsibilities, hold meetings and communicate effectively among the members for income generation and savings or emergency fund (LIESA, 2007).

Group constitution clearly define the activities of groups, authority of leaders, selection of leaders and membership criteria of groups, rewards and punishment system and services and activities the groups conducts. Therefore, group constitution clear direction and some legal aspect of groups so that groups can function well.

The 71.42% of farmer groups, under my study, don't have group constitution for regulating groups' activities. In this regard, when I asked to the members and leaders of the groups, why your group didn't prepare the group norms? Group members replied *"nobody told us that the groups should have group constitution and value of constitutions"*.

What I found that is though majority groups don't have written rules; they are doing everything based on social norms, values and beliefs. Presidents and treasures have responsibility of collecting and calculating membership fees and other members believe on them over their activities. If something emergency the groups need to be done, then they decide by group consensus. Trustworthiness is the rules of these groups.

4.1.4. Group fund

Group fund is binding force of the groups. When there is their money in the fund, members don't go away from the groups and group activities (CATC, 2002). Under my case, all of groups have group fund. Group fund is the common property of group members and they use this money for different purposes: fulfilling individual needs and collective needs. Groups have taken group fund as a matter of pride and social prestige. When I asked to groups, do you have group money? They said:

"Yes we have group fund and we have feeling of satisfaction over this money because we collected this money by our own efforts and this is our group identity".

I learnt that groups have taken collection of group fund as an important part of group activities and they have intention of increasing group fund because groups have taken group fund as strength of groups and important to fulfil their immediate needs.

Every month groups organize group meeting and they collect membership from members' on the meeting day. Regular meeting and collection of money have become group norms and regular activities. Group fund has also helped to make the groups active and functional. Most of groups also have opened up bank account for security of fund. Members of groups are happy with group fund because they can get money when they needs and group funds have increased cohesiveness among the members of the groups.

Sources of funds of most of groups are membership fee and interest charged on credit. But groups don't have other sources of fund: for instance, money collected from commercial activities and loan money from other formal organizations. Therefore, most of the groups have limited amount of fund. Owing to informal organizations, government, semi-government and other private organization mostly don't provide loan to farmer groups because money lending organizations demand guarantee of repaying. Due to low collected amount, the members can't get sufficient amount of money when they needs. For detail group funds see below in the table 4:

Table 4: Groups' funds of different farmer groups

SN	Name of the groups	Total No. members	Total group fund
1	Ganesh seed production farmer group	25	75,000/- NR (1000 US dollar)
2	Hariyal women farmer group, Imadol	30	2,00000/- (NR) (26666.66 US dollar)
3	Bishakhunarayan fruit and vegetable farmer group	26	30,000 NR (400 US dollar)
4	Naudhara women farmer group	19	41,000/- NR (546.66 US dollar)
5	Anandeshore fruit and vegetable farmer group	17	40,000/-NR (533.33 US dollar)
6	Saptarishi women famer group	22	170,000 NR (2266.66 US dollar)
7	Kalidevi wonen farmer group	40	250,000 NR (3333.33 US Dollar)

Source: Author

4.1.5. Legal status

Farmer groups which are not registered with relevant authorities are informal groups and they are not legally recognized (KIT, 2008). Legal status is usually needed for an organisation to be recognised by public authorities, or access public services. It can also be useful when finding partners and institutionalising into more formal structures developments which can help an organisation to progress and move forward (LIESA, 2007).

In my case most of farmer groups are informal organizations because they are registered at DADO for records and for getting extension services but don't have legal status. DADO has made strict provision that in order to get the extension services (production inputs, training, tour and other technical services); the groups need to register at the DADO after formation. The intension of DADO of registering of groups is also making them active and functional. Those farmers who are not involved in groups can't get any extension support from the DADO. This provision is especially made to motivate farmers to involve in groups and group activities to strengthen their capacity to generate resources to fulfil their needs.

But only registering at the DADO, the groups don't get legal protection and legal right. There is not any rule and act to provide legal organizational status to farmer groups those which are registered at DADO. Groups can only get legal protection (legal right to involve different agricultural related business, legal recognition to get support from different organizations) need to be registered under the Cooperative Act of MOAC. However, to register as cooperative, groups needs to meet certain criteria: at least 25 members with 35% women representation, bank account, clearly defined group constitution, clearly mentioned aims and after registration groups need to conduct regular activities.

Though groups don't have formal legal status, groups are running based on societal rules, norms and values. Majority of leaders and members don't have feeling that they are not legal organizations and they even don't care about legality. The 71.42% groups under my study are satisfied what status they have and even they don't have any plan to covert the groups into legal status. When I asked do want to covert your groups into legal organizations i.e. into cooperatives, only 28.57% groups were interested to convert groups into cooperatives and rest of were happy with their present status.

However, those groups which are informal get less recognition by government, semi-government, I/NGO and private organizations and can't conduct agriculture and non-agriculture related businesses legally, for instance, legal saving services and marketing businesses. Similarly, informal farmer organizations can't get loan from government Rural Development Bank for providing services to their members. In the same way, other formal and informal organizations don't show interest to conduct training and social works in collaboration with informal organizations. They mostly collaborate with formal farmer organizations due to security and reliability reasons and in hope of proper use of fund.

4.1.6. Networking

Network is important for acquisition of scarce resources such as capital and information (Portes, 1995). Farmer groups have networking and connection with other farmer groups and cooperatives at local level for technical advices and knowledge and information sharing, for instance, exchange of seeds of improved varieties and technical knowledge for growing new crops in the local area. Groups and group members have connection with local groups such as Women Groups (Local Mother Groups), Community Improvement Groups, Forest User Groups, Drinking Water Management Groups and Livestock Groups.

Interestingly, women members most of groups, under my study, are also members of other 4-6 local groups which are especially formed for women empowerment and social works. These personal and organizational connection and networking are mostly for social works.

Some members of my study groups are also members of village level cooperatives. However, these women are included in the cooperatives to fulfil the quorum of women because for forming cooperatives at least 35% women need to be included. These women of my study groups are taking advantages from these cooperative by getting small amount of seed and credit facility by these cooperatives. All groups under my study have connection with District Agriculture Development Office (DADO) and getting extension services. Nonetheless, groups don't have connection and networking with other service providing organizations like local NGOs, Seed Company, Agro-vets and other government and private money lending organizations. Due to not having connection with other external organizations, the groups are not getting support from these organizations.

4.2. Value of groups to the members

Leaders and members of groups have valued group concept and groups activities more from sociological perspective: social relation, social ties and social identity rather exchange of knowledge and information and promoting farming activities.

4.2.1. Credit and saving facility

Groups provide credit facility to the members from their group fund for fulfilling immediate needs of members. I found that all of the farmer groups have group welfare fund and provide credit to the members. But most of groups don't have sufficient fund (see in the table 4 under sub-section 4.1.4) to provide credit to the members when they demand more amount. According to the members, sometimes, they don't get credit from the group due to insufficient collection in group fund. In that case they have to go to the local money lenders who charges exorbitant amount of interest. Generally, groups provide loan to the members from 1000-5000 Nepalese Rupees at a time.

According to the members, the credit is very valuable fulfilling their needs in the crucial movement and members have satisfaction over credit facility of the groups. Owed members either use money for agriculture activities or for non-agriculture purposes. However, as said by the members of the groups, majority of members use money for the non-agriculture purposes such as repaying loans taken from local moneylender, marrying daughters and sons, paying school fees of children, buying medicines for sick family members, fulfilling the immediate need of food stuffs, etc. The groups are not strict to compel the members to use the money on particular activities, for example, cultivating vegetables and other agriculture related activities.

When I asked to the leaders of the most the farmer groups, do they have record/information how do members use loan taken from the groups' fund? They said:

"We are not strict on this matter; sometimes members are in great need of money to fulfil their instant need such as treatment of the family members and paying the school fee of children, etc".

The owed members can use loan wherever they have emergency. Our general understanding is that the members should use the loan money for the agriculture purposes to increase their income. Leaders of the groups said:

“We can’t compel members where they have to use borrowed loans because sometimes their other needs are more important than agricultural needs, for instance, for the treatment family members and buying immediate need of food stuff and clothing”.

I found that though majority of members are not using the credits for agricultural production purposes but has proved very valuable to fulfil their instant domestic needs. Group fund has proved very useful to fulfil urgent needs of the members and thus members valued the group fund.

But groups don’t have saving facility to the members.

4.2.2. Collective buying and selling system

The farmer groups without any targeted collective seasonal and annual work have greater possibility of become inactive or dysfunctional. If groups don’t have targeted programmes such groups may render inactive after formation rather than moving towards cooperatization (Sharma, 2008). The main aim of formation of farmer groups was to motivate farmers for collective activities in order to meet their needs and to solve their local problems themselves.

Regular collective group activities not only helps to fulfil their immediate needs but also help to upgrade and widen group activities which assist for further development of groups. Generally, common group activities are collectively buying of agriculture production inputs, collectively selling of agricultural products and collective cultivation practices for generating group fund and promoting commercialization of agriculture.

However, under my investigation, 71.42% of groups don’t have provision of collectively buying and selling system. Most of these groups don’t involve in commercial cultivation, so they are not practicing collective buying and selling provision. Only 28.57% of farmer groups use welfare fund for collective group activities. For instance, the Kalidevi Women Farmer Group uses group fund for buying the production inputs such as seed, fertilizer, pesticides for commercial cultivation of vegetables and flower. The leaders and members of this group said:

“Welfare fund has helped a lot for collectively buying of production materials, and has assisted to some extent for the commercialization of agriculture”. Members generally don’t have money for purchasing the production inputs and thus groups use group money when they need and later on they return money on welfare fund”.

Similarly, Kalidevi Women Farmer group has annual targeted programs: for instance, group has annual fixed program for raising seedlings of off-season vegetable on common land and distributing the seedlings among members. The president of this group said:

“We have been doing this activity since last 3 years to promote small scale commercial production at the local level and this activity has encouraged group members involving in commercial production of vegetable”.

This collective seedling growing in the common place has promoted the commercialization of agriculture to some extent. Those members who can’t raise the seedling by their own can get seedling and also those members who are inexperienced in the vegetable cultivation can get technical support from the experienced members. Therefore, this collective buying and collective raising of seedling has great value for the members of the groups for showing collective social active. Such culture of collectivism has not only increased value and identity of groups in the society but also developed the tradition of collectively solving the rural problems.

According to members and leaders, Bishankhunarayan Fruit and Vegetable Farmer Group use group fund for collectively selling of fruit produced by members. But they do this collective work only for “Japanese Persian fruit”, which is new variety of fruit introduced in Nepal by Japanese support. This fruit is new to Nepalese and thus the group sell this fruit collectively in the Agricultural Fair annually. Leader of this group said:

“Collective group selling practice has proved how important is group for fulfilling the needs of group members. Therefore, we have valued group as collective social energy for meeting the

needs of the members”.

What I found is that those farmer groups who has been involving in commercial production, have practiced collective buying and collective selling system.

4.2.3. Training and knowledge exchange

Technical knowledge and information is very important for people who are involved in farming in order to solve their farming problems. The groups under my study don't conduct any kinds of training to the members because groups are not in condition (financially and technically) to organize trainings to their members. But minority (42.85%) groups practice exchange knowledge gained from the trainings, workshop, seminar and tours to other members of the groups. When DADO invite trainees from groups, the groups select members for the training by group consensus and when trained members come back from training, workshop and tour, they share learnt knowledge and information to other members.

For instance, Ganesh Seed Production Farmer Group has made compulsory to the trained members to share learnt knowledge from the trainings. In this context, one lady member of this group said:

“In our group members after returning from training have to necessarily share what they learnt in the training and this system is really nice to be informed about new technologies and practices”.

Owing to inadequate practice of knowledge sharing among the members, members of the groups are not benefitting adequately from groups and group activities.

4.2.4. Social works

Organizing and involving in different kinds of social works has become socio-cultural norms of rural Nepalese for their identity and recognition in the society. Influences of political parties are one of factors for initiating social work in the society. After the democratic political transformation in 1990 and Public Movement conducted by the Maoist Communist Party (Radical Revolutionary Community Party based on the principal Mao) after 1998 are one of reasons of increased social work in the Nepal society especially in the rural areas. Political parties used to organize different kinds of social work in order to influence rural people. Farmer groups also learnt to conduct social work from the political parties. Therefore, social work becomes social prestige in the rural Nepalese society.

Farmer groups under my study organize some non-agriculture related social work such as tree plantation programs, making water tap, repairing and painting temples and clearing the rural road and water canal etc. According to members and leaders of the groups, they are involving these kinds of social works in order to show group identity in the society. Leaders of groups said:

“Every people in the society want to maintain their recognition, so we are also doing social works to prove our existence and identity in our societal domain”.

But farmer groups under my study don't involve other kinds of social works such as adult literacy programs and organizing health campaigns in the village level. Neither groups have tried to conduct such programs nor have other concerned organizations requested groups to involve in such socially concerned activities.

However, groups are satisfied what social works they have done in the society and according to members and leaders of groups' social work has raised their identity in the society and thus they would like to do such kinds of social works in the society.

4.2.5. Leaders' and members' perceptions about group approach

Perceptions of leaders and member about cooperative are important aspect to see the importance of group concept in the rural and semi-rural society. In what ways members of groups have looked at groups and group activities and what advantages members have been obtaining from groups are main questions for valuing groups.

During my field work, I found that most of members and leaders of groups have positive views towards group concept of extension and collective activities. Basically members' preferences of group are due to availability of credit from the groups' fund, collective group activities, social identity and extension support services etc. When I asked to the members, of groups what did you get from the groups? Majority of members of groups said:

"If there were not groups' welfare funds, we would have gone to local money lenders for credit who, generally, charge exorbitant interest rate that is 25-30% but from our fund we are getting credit in normal interest rate (10-12%) which is great advantages for us".

Similarly, one women member of Hariyali women farmer group said:

"Last year when my son was very sick, I wanted to bring him to hospital and at that time I got money from group for treatment of my son, thank God!, group fund saved my son's life. So I am very grateful to group and fortunate to be a members of group".

From this statement it can be said that what values groups have for fulfilling urgent needs of the members.

Perceptions of majority of members of the groups is that group fund has helped greatly to fulfil their immediate needs, for example, treatment of sick family members, paying children schools' fees, buying immediate need of food stuff, buying clothes to family members etc. Therefore, they have valued groups for meeting their immediate financial needs.

However, women member of Ganesh Seed Production Farmer Group has different perception about group approach and group fund. She said:

"We haven't got any other advantages by involving in groups except credit for marrying of our daughters. We have not got sufficient support, for instance, seed, fertilizer and other production materials from extension workers and extension offices after we formed group"

This statement hinted that farmers were motivated to form groups in the beginning and they were told they would get extension supports if they involved in groups.

Here is an important remark of a senior women member, aged 75, of Kali Devi Women Farmer Group, while talking with her about group approach, she expressed her bitter experiences and said:

"In our society women used to treat very badly in the earlier days, it was very hard task for women to go out of home and to talk with men in public places. When we were about to form a group 14 years earlier (1994) there were many men who blamed us for breaking the societal norms. We struggled a lot for this. After formation of group we, all women, are organized, women voices have been raised in the society. She praised for the group approach and, therefore said "the group approach has done a lot for the right of women except other agricultural advantages from the ADS, DADO and other NGOs".

From this statement it can be said that group concept not only important from the agricultural point of view but also important from the social prestige and anti-social discrimination point of view and thus group concept has helped to raise women voices in the society.

Members of groups also praised groups because they have got change to participate in the agriculture related trainings organized by DADO, members have been getting extension supports from DADO and they have been involving in the social works through groups.

Due to of all these reasons and importance of groups, almost of all members of groups would like to continuously involve in groups. As many as members of groups I met, none of them told me that they would like to quit group membership. According to leaders of the groups, after joining groups only few members have given up group membership. Only girls after marriage, generally, discontinue their membership. The numbers of members are increasing in all groups.

4.2.6. Extension services to strengthen groups

Development and maturation of groups after formation also depends upon motivation and

guidance by the extension workers. After the group formation, the extension workers need to train and help the group members to develop collective group activities based on their problems and needs. Extension officials at the DADO/ASC need to prepare their monthly schedule to support supervise and monitor the group programs and activities (CATC, 2002) otherwise the groups get confused after the formation and groups can't function effectively for the promotion of extension services.

From this research, I came to know that the DADO doesn't have targeted program for mobilizing and strengthening farmer groups. The DADO only provides technical trainings to the members of the groups but DADO doesn't have trainings to the leaders and members concerning to generating more resources for collective group activities and leadership development trainings, record keeping system, account keeping system etc. These kinds of trainings help to strengthen organizational strength of the groups. Furthermore, there is lack of proper guidance to the groups for planning and conducting collective activities and forming group constitution. These kinds of support are very important for making the group functional, continue progress and become more self-reliant in order to meet their local needs.

In this context of group mobilization programme, extension officer of DADO, Lalitpur said "we have limited numbers of front line extension workers, one field level extension worker has responsibility of providing services to the farmers of 6-7 Village Development Committees (VDC¹¹). According him in some VDCs there are more than 8-10 farmer groups which is impossible to reach each and every farmer group for motivating and guiding them for the group activities.

In this context, the front line extension workers also said "we are limited in numbers (*generally two JT/JTAs in one ASC*); we can't go to every group for supporting technically and mobilizing them for group activities". They further said "we don't attend group meeting very regularly". According them if group leaders and members come to ASCs for asking proper suggestions and guidance, they are always ready to help them.

MOAC has given priority via its policies to develop the agriculture sector through cooperatization. The Agriculture Perspective Plan (APP) has accorded important role of the cooperatives for the commercialization of agriculture. Similarly, Agriculture Policy (2004) has also given priority for the development of agriculture sector through development of local farmer organizations that is cooperative. Tenth Five Year Plan (2002-07) of Government of Nepal aimed at alleviating the poverty by promoting commercialization of agriculture via cooperatives sector development (Bajracharya, 2006).

In this regard, joint secretary, Shiva Sundar Shrestha, of MOAC and Deputy Director of DOA Bijaya Kumar Mallic, mentioned that ultimate goal of farmer groups is to convert into cooperatives. As when farmer groups are transformed into cooperative get legal organizational status and thus attain full authority to involve in different agriculture related business and income generating activities. According to them, the cooperatives can become self-reliant by their own income generating activities.

Lalitpur, DADO doesn't have any formal motivational and educational programs to the members and leaders of groups in order to provide detail information about cooperatives (*what is a cooperative, benefit of cooperatives, minimum requirements of groups to convert into cooperatives etc*).

Extension officer, Govinda Prasad Sharma, of Directorate of Agricultural Extension revealed that the DADOs generally don't have cooperative education programs. But Sharma clarified that the Regional Agriculture Training Centres (RATCs) mostly have pre-cooperative education trainings to the leaders of farmers' groups. When I asked to Chief of RATC Dhanusha, Raj Kishore Jha, about pre-cooperative education training, Jha mentioned that RATC organize pre-cooperative education trainings but the numbers of these trainings are very limited. Jha told me that RATC has to invite group representatives of 16 districts;

¹¹ VDC is lower administrative unit of Government of Nepal. Each VDC generally have 9-10 wards. Some VDCs have total population of 10,000.

therefore, only limited group leaders can get chance to participate in such trainings.

The extension officer, Harihar Kafle, of DADO, Lalitpur mentioned that they don't have pre-cooperative education programmes in DADO's annual programmes. Kafle claimed that even if they don't have such programmes in their regular annual program, the frontline extension workers mostly provide cooperative related information to the leaders and members of groups informally (*either in group meeting, or while visiting farmer fields, or when farmer come to the ASC offices, or, in other training programs etc*).

According to Tankjang Pandey, cooperative assistant of DCO said that the DOC and DCO don't have pre-cooperative education programs. The Cooperative Training Centre only provides trainings to the members and leaders of cooperatives but not to the farmer groups.

Therefore, there is gap between government's stated policies and actual annual programs. The government has given priority via its policies to convert the farmer groups into cooperatives but don't have adequate programs to support the existing policies.

DADO doesn't have good rewards and punishment system for field level extension workers. Those who are personally closer to DADO chief and officers can get more benefits and but those who are hard workers and sincere get nothing if they don't have personal relation with the DADO chief and other officer. Nepotism and rampant corrupted in the DADO system has badly affected the extension services.

Similarly, field level extension officials have very low incentives and salary, so they are not motivated to go to the field and provide guidance to the leaders and members of groups.

Importantly, political situation of country is also one the factors of poor support to farmers by extension workers. During 10 years long Maoist insurgency in the country, there was impossible to the government officials to go to the field. Maoist has totally prohibited the movement of government officials in field. If some official violate Maoist rule either they has to get death penalty or had to huge amount of financial fine. Therefore, government services were badly affected during conflict time.

4.3. Concluding remarks

Most of farmer groups were formed by motivation and initiation of frontline extension workers. None of the groups, under my study, were formed by fully self-initiation and/or self-motivation by farmers and reasons of farmers joining groups were to get extension support services. Therefore, groups don't have definite objectives and targets. Though groups don't have any target, all groups have established group fund and have been organizing meeting regularly and collecting membership fees for strengthening group fund. Group members are proud over group fund and have taken group fund as factor for cohesiveness and increasing bonding social capital.

Groups don't have written group constitutions to conduct day to day group activities and also don't have feelings of need of groups' constitution. But they have been conducting group activities based on socio-cultural beliefs, value and norms. The groups believe on group consensus while deciding in any matter of group interests.

All of the farmer groups under my study are registered at DADO. But farmer groups have informal organizational status because there are not any law and act to provide legal status to the farmer groups which are registered at DADO. For organizational legal status, groups need to register at the DCO under the Cooperative act of 1956 and 1992 of the MOAC. Due to local informal entities, groups can't involve in the group business activities legally. Additionally, government, non-government and private organizations don't recognize and invite informal groups for organizing trainings and activities collaboratively. Moreover, informal groups are also deprived from benefits of government's low interest rate grant for rural communities. But interestingly, majority of group leaders and members are not concerned greatly with legality and illegality and they also don't have immediate intension of converting the groups into legal status because they are satisfied with what status do they have at present. They don't have any long term vision.

Farmer groups and group members have connections and networking with other local groups, for instance, local forest group, local mother group, water and sanitation groups, local users' groups etc formed by different government, non-government and private organizations. Therefore,

bridging social capitals of members have increased by involving in the groups. Most of groups have connection with the DADO office for getting extension services however; they don't have connection with other service provider organizations for getting support for strengthening groups' support activities to the members. So, groups have weak bridging social capital with service providers. Farmer groups are not effective to establish networking with service providers and to bring changes in the existing farming by their supports.

Groups provide credit facility to the members at lower interest rate (12%) by their group fund and mostly members use credit for fulfilling their immediate needs such as treatment of sick family members, paying children school fees, repaying loan taken from local money lenders etc. Mostly owed members don't use credit for agricultural purposes and therefore, group fund has not played great role to bring changes in the cultivation practices of the members. But credits have proved very beneficial to meet their urgent needs and thus members are very thankful to the group funds.

Majority of farmer groups don't have system of collectively buying of agricultural production inputs and selling of agricultural products. What I found is that those groups whose members don't involve in commercial cultivation don't practice collective buying and selling system. However, those groups whose members are involved in the commercial production; somehow have established collective buying and selling system.

Groups don't organize any kinds of trainings to provide knowledge and information to their members due to lack of resources but minority (42.85%) of groups have established culture of sharing knowledge and information acquired from trainings workshops and farmer tours organized by DADO, DCO, NGOs and other private organizations. Culture of knowledge sharing practices somehow has helped to promote farmer to farmer extension and also increased mutual support, unity and cohesiveness among groups' members which is symbol of collectivism.

Groups involve in social works which has become group identity and matter of social prestige. Social work (planting tree, constructing water tap, clearing water canal etc) is ingrained social culture of Nepalese society and this culture is increased after democratic political transformation in country in 1990. Political parties and social volunteer organizations have taken social works as a metaphor of their identity in the society. Members of groups have also copied this system from these political and social volunteer groups.

Group leaders and members have positive perception over group concept and according to them social capital and social identities have increased due to participation in groups and group activities. Leaders and members have given value to groups for its credit facility in order to fulfil their urgent needs. Women farmer groups and women members of the groups have special faith and gratitude over group approach for making them visible in the gender-biased society and providing exposure to outside world (visit to DADO and other service providers, involve in farmer tour, visit to banks for opening group account etc). Additionally, farmers valued groups for getting production inputs and technical knowledge from the DADO. But these supports of DADO to groups have not played any visible role to bring changes in their existing farming system.

DOA and DADO's have emphasized decentralized extension approach and have focus on to strengthen organizational capacity of farmer groups. But they don't have group strengthening programs: leadership development training, record keeping and account training etc. Field level extension working were/are not effective and motivated for mobilizing the farmer groups due to low incentives and lack of transparent rewards and punishment system. Extension workers are rewarded based on nepotism, political beliefs, and personal linkages rather than work performed by them and their commitment. After political change in 1990, nepotism, political favours and groupism within the bureaucratic system has greatly increased and therefore, this system has badly affected the performance of government employees. During 10 years long (1996-2006) Maoist insurgency in the country, there was impossible to the government officials to go to the fields for mobilizing the farmer groups. Maoist has totally prohibited the movement of government officials in the fields. If some officials violate Maoist rules and orders either they had to get death penalty or had to pay huge amount of financial fine. Therefore, government services were badly affected during conflict time and the effect of this was also high on the activities of field level extension workers for mobilizing the farmer groups formed by them.

Chapter Five

5. Organizational status and value of cooperatives

In this chapter my focus will be on initiation of formation of cooperatives: who was the prime driver for the formation of cooperatives, what is organizational status of cooperatives have especially on share capital. Additionally, what are the major extension services of cooperatives to the members and perceptions of leaders and members over the cooperatives?

5.1. Organizational status of cooperatives

5.1.1. Initiation of cooperative formation

Groups of farmers who come together spontaneously or through their own efforts to answer their own felt needs are more likely to be effective than groups that are brought together to suit the needs of an external agency. Spontaneous and voluntary formation of social groups involves a high degree of trust which cannot be manufactured (LIESA, 2007).

In my case I investigated 5 agriculture cooperatives and all cooperatives were upgraded from farmer groups. Before analysing my data about cooperatives, I would reveal differences between farmer groups which were/are remained farmer groups after formation and farmer groups which converted into cooperatives. From this research, what I found is that most of the farmer groups which were remained groups were established by motivation of extension workers and most of members involved in the groups with to hope get extension services from the DADO and they did not have plan and personal motivation to promote and upgrade the groups.

But farmer groups which were converted into cooperatives were formed by self-motivation of farmers and those persons who initiated to form groups were local level school teacher, community leader and having interest of social work; commercial farmers and person who had work experiences of NGO as social motivator to promote farmers and rural peoples' organizations. Part time teacher had interest of forming local farmer organizations and promoting self-help in the local area; commercial farmer had interest of forming cooperatives and promoting mushroom cultivation; community leader had interest of forming cooperative to become a leader of cooperatives and promoting social work and person having work experience of NGO had plan to promote farmer organizations in the local areas to promote commercial cultivation and self-help (*see appendix 3 for detail information about motivation factors for converting groups into cooperatives*).

Majority (60%) of the cooperatives were upgraded from groups by self-motivation and self-interest of local people with the whim of promoting local farmer organizations, promoting self-help, promoting commercialization and acquiring social prestige in the society. In addition to that external drive such as pre-cooperative education trainings, farmer tours and success of other cooperatives in the communities were also additional factors for initiation and motivation for converting groups into cooperatives.

However, 40% cooperatives, under my investigation were formed by little self-motivation or inner motivation and more external motivation. Those cooperatives were formed by the motivation of officials Division cooperative Officer (DCO) in order to fulfil their annual target. Leaders of those cooperatives mentioned that DCO officials advised and told them that if we formed the cooperatives we would get more support (technical and financial) from DCO and thus upgraded groups into cooperatives.

5.1.2. Objectives and targets

Objectives and target are the source of success of any formal and informal organization. Those organizations that don't have clearly defined objectives and target can't progress. It is important that groups need to have a clear vision of where it is going and what it wants to achieve, however, this vision can be adapted over time (LIESA, 2007).

Majority of cooperatives, under my study, have clearly defined objectives: what they are intended to do and what plan do they have for annual activities. Basically, the cooperatives have objectives of providing technical and material support to the members in order to promote the commercialization of agriculture; to provide credit services to the members; to provide training and technical services to the members; to provide social services to the members and other people of the community etc. Groups have to submit their target/aim before registering into cooperatives. These objectives are mentioned in the constitution of cooperatives and 60% of cooperatives are working and providing services based on the targeted objectives and they have annual target: training, social services and collectively buying services etc.

5.1.3. Constitution of cooperatives

Small Farmers Groups Association needs group constitution to indicate main objectives of groups, right and duties of members and leaders, governance structures and committees, rule of governing election, membership fees, frequency of meeting, profit sharing, withdrawal of membership etc. The constitution is needed to make systems easy to maintain, promote transparency, transactions, decision-making and strengthening group self-reliance and sustainability (FAO, 1998).

All cooperatives have constitutions clearly mentioned about: objectives of cooperatives; what is legal status; what kinds of activities cooperative can/have to provide to the members and other community people; what are authorities and legal rights of leaders and members; election system and selection of board members and working duration of elected members; entry system of new members and exist system of members; rewards and punishment system etc. However, only 60% of cooperatives are conducting their targeted and compulsory activities mentioned on the cooperative constitutions.

5.1.4. Cooperative fund

Cooperatives have different sources for its fund. Share of the members is one of the main sources for capital formation of cooperatives. Other sources are membership subscription fees, business income, government grants, training fees (training provided to other organizations) and program cost provided by partner organizations and donors for conducting training and other social activities (NCF, 2008).

Cooperatives have share fund which they generally provide to the members for income generating activities. Mostly cooperative funds are collected from the share of members, money deposited by members in their saving account, benefits from training conducted on financial support of other organizations and other social activities and loan taken from government organizations. Cooperatives provide credit to their members. Cooperatives have many members than informal farmer groups. People attract to be member of cooperatives due to its legal structure, saving and credit facility and other support services. Being legal organizations, cooperatives can get loan from different formal organizations. Government rural banks have provision to provide grant and loan to cooperatives and ultimately to provide services to the farmers. Owing to diversified of resources of capital, cooperatives have chance of collecting more fund than just informal farmer groups.

Cooperatives, under my study, provide credit to a member maximum of 45,000 RN (600 US dollar) at a time for the commercial cultivation and other income generating activities. See below in table 5 for details about cooperative fund of the different investigated cooperatives.

Table 5: Share capital of cooperatives

S.N.	Name of cooperatives	Total no. of members	Amount of money in share- fund
1	Bishnudevi multipurpose agriculture cooperatives	140	10, 00000/-NR (13333.33 US dollar)
2	Sadvav multipurpose agriculture cooperatives	158	40,00000 NR (53333.33 US dollar)
3	Sidhiganesh women farmer cooperatives	69	250,000 NR (3333.33 US dollar)
4	Mushroom producer farmers cooperative	160	20,00000 NR (26,666.66 US dollar)
5	Vegetable and mushroom producer farmers cooperatives	58	20,0000 NR (2666.66 US dollar)

5.1.6. Legal status*Source: Author*

Cooperatives are formal organizations and have legal organizational status. Due to legally recognised entities, cooperatives are free to conduct business activities and access tax benefits and government support services and obtaining low interest credit (Rankin and Russell, 2006).

All cooperatives under my investigation are registered at the Division Cooperatives Office (DCO) under the Cooperative Act of Ministry of Agriculture and Cooperatives, therefore, they have legal protection and legal right to involve in different agriculture related business and activities individually and in collaboration with different concerned organizations.

Cooperatives have to follow legal financial act and financial auditing system. Cooperatives have to audit their incomes and expenditures annually by the authorized persons and government organizations and legally have to show how much money has been spent for the welfare of the members. Every financial activity has to conduct based on the government financial acts and rules. Cooperatives have to pay tax to the government on certain activities.

Duties and responsibilities of the leaders and members of cooperatives are legally protected as well as limited. Leaders have to perform their tasks on the legal ground. Leaders can't misuse cooperatives fund and if they do they are legally punished. Every year cooperatives have to prepare their progress reports and have to submit to DCO. Those cooperatives can't submit their progress reports and remain idle registrations are cancelled.

Due to all these reasons cooperatives are legal organizations and legally protected organizations. But in case of informal farmers groups, all these provisions don't apply. Due to legal status of cooperatives, most of the organizations (government organizations, NGOs and INGOs) provide services to the farmers via cooperatives and cooperative can provide services to the farmers.

Due to legal status majority of cooperatives under my study are conducting activities in collaboration with concerned organizations. Majority of cooperatives are organizing general assembly every year to provide information regarding benefits, losses and other activities to the members.

5.1. 7. Networking

Networks are important for acquisition of scarce means such as capital and information (Portes, 1995). Network and relationship have become critical for the success and survival of organizations.

Cooperatives, under my case, have networking with district level cooperative federation and national level cooperative federation. Cooperative federations are organizations established for the welfare and progress of cooperatives.

These federations are formed mainly to raise the sense of mutual help and cooperation among cooperatives; to organise seminars, workshops, and awareness raising programs on

the emerging issues and lead the movement for safeguarding and implementing the cooperative norms, values and principles; to promote, strengthen and develop the cooperatives through cooperative training, education and specific projects activities for making cooperative efficient and viable and to develop marketing network to the cooperative products in order to promote the business for the economic benefits of the members.

The 60% of cooperatives, under my study, have networking and/or members of both National and District Level Cooperative Federations. These cooperatives are taking advantages of getting of training of about cooperative management, account keeping and leadership development and other related information from the federations.

However, only 60% of cooperatives under my study actively participate in the workshop; seminar and training organize by the cooperative federations. Rest 40% are not active developing networking and not taking advantages of from the federations.

Additionally, cooperatives under my study have networking with government, non-government and private organizations for acquiring financial and technical support for organizing training and social services. Nonetheless, support of these organizations to the cooperatives patchy. There is not concrete understanding for providing extension services via cooperatives.

5.2. Value of cooperatives to the members

According to Bijman (2002) the main function of an agricultural cooperative is to increase members' income by providing specific services that line up with activities of the members. The motto of the cooperatives is provides support services to its members to fulfil their immediate needs.

5.2.1. Credit and saving facility

The DOC (2007) states that one of the roles of cooperatives is to provide micro-credit and employment oriented credit to the members for income generating activities.

All of cooperatives, under my study, have provision of providing credit to the members for commercial cultivation of crops as well as agro-related businesses such agro-vets¹², fertilizers selling shop, etc and charge 12-13% interest on granted credit. But farmers have to pay 25-30% interest to the local money lender.

Table 6: Credit facility of cooperatives for different activities

Name of cooperatives	Use of credit
Bishnudevi multipurpose agriculture cooperatives	1. Commercial vegetable production, rearing goat, chicken farming 2. Conducting beauty parlour,
Sadvav multipurpose agriculture cooperatives	1. Provide credit to members for commercial vegetable production, 2. Provide credit for running agro-vet, fertilizer selling shop 3. Provide credit to repair the houses
Sidhiganesh women farmer cooperatives	1. Provide credit for commercial vegetable production 2. Provide credit to fulfil other needs of the members 3. Provide credit for other income generating activities for candle making, pickles preparation etc.
Mushroom producer farmers cooperative	1. Provide credit for commercial mushroom cultivation (<i>for buying seed, fertilizer, straw, chemical, plastics other necessary items need while cultivating the mushroom</i>) 2. Provide credit for other needs of the members
Vegetable and mushroom producer farmers cooperatives	1. Provide credit for commercial vegetable cultivation 2. Provide credit for other emergency needs

¹² Agro-vet is a shop where agriculture production related items are sold. For example, seeds, pesticides, different micro-nutrients, agricultural equipment etc.

The 60% of the cooperatives have loan committees to decide whether to provide loan to members or not. The basis of judgement is basically of possibility of properly utilizing credit: the committee can see, for example, whether land is feasible for cultivation of vegetables or not; what about the knowledge and skills of members for cultivating commercial vegetables etc.

For example, the president of Bishnudevi Multiple Cooperatives said:

“One of our aims is to encourage farmers to abandon subsistence-based farming and motivate them to adopt the commercial farming”.

Therefore, to fulfil this purpose, the cooperative provides loan to the members for maximum of 40,000 Nepalese Rupees (666.66 US dollar) either for commercial cultivation or for livestock rearing or for agro-businesses such as agro-vets, fertilizer sells shops so on and so forth.

Similarly, secretary, Ram Bahadur Shrestha, of Sadvav multipurpose cooperative explained that they provide loan to the members as well as farmer groups for different business activities. According to him they generally invest loan to those who really want to do commercial vegetable cultivation, meat shop, and vegetable shops, house repairing etc. According to Shrestha Sadvav cooperative has invested more than 20, 00000/- NR (26,666.66 US dollar) for providing credit to the members.

Additionally, the Mushroom Producer Farmer Cooperatives provide loan to the members via their own share capital as well as recommend to Rural Self-help Program of Nepal Rastra Bank for providing the loan. According to secretary, Ram Krishna, when cooperatives give recommendation letter (*recommendation is one form of guarantor*), generally the formal organizations provide loans due to guarantee of return. In such case, if loan receivers don't repay, the cooperatives have to repay the loan. As mentioned by the president, Goma, of Mushroom cooperatives, 140 members out of 160, of this cooperative, have taken loan for mushroom cultivation purposes. Goma said:

“We mostly give loan to the members who grow the mushroom as our aim is to boost up the production of mushroom and increase the income of members”.

Therefore, cooperative is very importance to the members to get credit for commercial cultivation of vegetables and other income generating activities and one member can get upto 45, 000 NR.

Having legal status, cooperatives can legally open saving account to the members and other people of the communities. DCO provide authority to the cooperatives to conduct saving services to those cooperatives that have multi-purpose objectives.

The 60% of cooperatives, under my study, have provision of providing been providing saving services to their members. Saving service has provided two advantages: one is members can deposit their money in their accounts and another is the deposited money used for providing credit to the members for income generating activities.

Members of the cooperative said:

“Saving facility of cooperatives is really helpful for us because whatever amount of money we earn from our farming activities or from other activities, we can save it in our account, and we needn't go outside villages for saving our income and also we can easily withdrawn our money whenever we need”.

Saving facilities of cooperative is additional value than informal farmer groups and proved very beneficial to the members to deposit their income in their doors.

5.2.2. Collectively buying and selling system

Van den Ban and Hawkins (1996) states that farmers' cooperatives organize input supply as well as marketing and processing of farm products to the members. Such services increase the accessibility of inputs to the members. In the same way, Thapa and Koirala (2007) states that cooperatives support their members by providing the required production inputs in their

neighbourhood.

Besides this, in the context of selling of agriculture products Bernard and et al (2008) states that “cooperatives seem effective at providing marketing services to their members through better market opportunities, higher bargaining power which serve their expected purpose of commercialization”.

Under my study, I found that 60% of cooperatives buy fertilizers and seeds collectively and sell to their members at lower price than normal market prices. This provision has helped in minimizing production cost of farming. However, none of the cooperatives are in practice of collectively selling of the agricultural products produced by the members. In this regards, the secretary of the mushroom producer cooperative said:

“Even if one of the principles of cooperative is to collectively sell the members’ products, but we are unable to do this”.

Collective buying system of cooperatives has helped a lot to the members for minimizing the production cost and promoting the commercial production.

5.2.3. Trainings and knowledge exchange

Van den Ban and Hawkins (1996) states that farmer cooperatives provide farm related technical services to the members in order to produce good quality products. Furthermore, KIT (2008) states that service oriented farmer organizations play a much more active role in knowledge and information services.

I found that 80% of cooperatives, under my study, conduct different kinds of training in order to provide information, knowledge and upgrade the skills of members in farming, food processing (pickle and sauces preparation) and other income generating activities. Basically, topics of training are: commercial vegetable cultivation, pickle preparation, candle making, mushroom cultivation, etc. I found that government; non-government and other private organizations are interested to provide financial support to cooperatives than farmers groups due to legal and strong organizational status to conduct different kinds of trainings to the members.

Besides technical trainings, cooperatives also provide training to groups’ leaders and members related to group management, leadership development, and record keeping system etc. Generally, short duration (1-2 days and 2-3 hours per day) and knowledge oriented trainings are provided by the cooperatives’ own fund. However, for long term (3-4 days) and skill-oriented (*how to make a nursery plot, planting of seedlings, candle making, pickle making, identification and treatment of insects and diseases etc*) trainings, they need financial supports from government, NGOs and private organizations.

Mostly, cooperatives receive financial supports from different organizations for conducting trainings. For example, according to president, Nilkantha, of Bishnudevi Cooperative, their cooperative get financial supports from World Vision (an INGO), DADO and District Livestock Services Offices (DLSO) for conducting trainings. Nilkantha revealed that Bishnudevi cooperative conduct 2-3 trainings in a year. That depends on support from the concerned organizations. In the case of study report of Benin, Tanzania and Rwanda KIT (2008) also state that the farmer organizations mostly receive technical and financial support from the NGOs and government offices for providing trainings to the members.

The secretary of the Sadvav cooperative, Ram Bahadur, said:

“They provide trainings to their members and as well as to them members of farmers’ groups for promoting income generating activities. If we don’t get support from other organizations, we organize trainings by our own cost, and we request for resource persons/trainers from the concerned organizations (DADO, DLSO (District Livestock Service Office), DCO etc)”.

Sadvav cooperative conduct 2-3 trainings in a year by their own cost. The duration of these kinds of trainings are generally of 1-2 days (1-2 hours per day). But for the long, at least 3-4 days and skills oriented trainings; they need supports from the donor organizations.

The secretary, Ram Krishna Sapkota, of mushroom producer cooperative mentioned that they provide short introductory trainings on mushroom cultivation free of charge to the farmers of their own cooperatives and other villagers. Sapkota described that they provides this sorts of training to boost up production of mushroom. The frequency of these trainings depends upon the immediate demands of the mushroom producers.

Providing income generating trainings to the members by their own efforts and by financial support of organization is additional benefits of cooperatives than informal farmer groups

5.2.4. Social works

KIT (2008) points out farmer organizations help their members and non-members by providing community-oriented social services, for example, education and health services etc.

I found that 40% of cooperatives organize and conduct the social works. These programs are conducted on the technical as well as financial supports of other concerned ministries/organizations, and volunteer services are provided by cooperatives. According to the leaders of cooperatives, different concerned organizations would like to use the platform of cooperatives because it is easy to reach people via cooperatives. Cooperatives have good networking in the local level and cost to these organizations is also lower than direct intervention because the cooperatives provide volunteer services.

I learnt that some government ministries have understanding to conduct social work in partnership with cooperatives. Under this partnership programs concerned government organizations provide financial supports to the cooperatives and cooperatives organize such programs.

I found that 60% of cooperatives conduct adult education program with an aim of minimizing numbers of illiteracy from the society. The secretary of the Bishnudevi Cooperative depicted that they have been conducting adult literacy programs with support of District Education Office. Such activities have helped to provide literacy classes to the members' cooperatives and other people from the communities.

For example, Bishnudevi Cooperatives organizes health service program such as vaccination programs, distribution of vitamin A capsules etc. These programs are conducted with technical and financial assistance of government's health organizations and NGOs in order to improve health of people. However, these kinds of programs are not very regular programs of the cooperatives. How often organize such program depends the availability of fund.

Additionally, Bishnudevi Cooperatives annually organizes irrigation canal cleaning programs with participation of members as well as water users' farmers.

Social services especially on adult education and health related services via other concerned organizations are important support to the members of the cooperatives and this additional value of cooperatives than informal farmer groups.

5.2.5. Leaders and members perceptions about cooperatives

I found that most of members of cooperatives are positive towards for different services of cooperatives.

For example, members of Bishnudevi Cooperative said:

"When we were in groups, we had to wait for 15 days or sometimes more than that for receiving credit but after being members of cooperatives, we can get credit on the same day and in greater amount".

According to them, generally, groups have limited fund and thus the members can't get sufficient amount when they need, however, the cooperatives generally have large amount of share capital for providing credit to members. The reasons behind this is that cooperatives have varied sources of fund, for example, membership fee, share capital of members, deposits by the members and also loan from formal financial institutes.

For instance, when asked to the members of Mushroom Producer Cooperative, are you satisfied with the financial support of the cooperatives? The members said:

“We are getting credit for buying straw, fertilizers and seed of mushroom, and thus credit has helped a lot for commercial production of mushroom. To get credit from the formal organizations (government’s and private banks) is really difficult job”.

Mostly these organizations don’t provide credit without guarantor and process is also difficult for the rural farmers. However, it is easier to them get loans from their own cooperatives.

For example, one woman member of Bishnudevi Cooperative said:

“I am really thankful to cooperative for investing me to run the beauty parlour. Before joining cooperative, I was idle in home, but after I become a member of cooperative, I got loan to establish parlour which has now become a good source of income to me”.

Members of cooperatives are pleased with cooperatives for credit facility. Owing to cooperatives, poor farmers’ accessibility to credit has increased for livelihood generating activities. This is a really golden opportunity to those poor farmers who can hardly get loan from the formal government and private organizations.

Furthermore, most of members of cooperatives are contented with provision of production inputs at nominal price at their doors. The members of cooperative revealed that they needn’t go to the markets to buy the production inputs and also prices are reasonable. But the members expressed dissatisfaction over the items of inputs. Mostly the cooperatives provide fertilizers and seed of cereal crops, for example wheat, rice etc. For other necessary inputs members have to go to market themselves. The members said:

“Cooperatives should have purchased seed of different crops (vegetables, cereals), pesticides and agricultural tools (watering cane, spade, sprayers etc.) so that we can get all of them in our home and also can save both time and money”.

The members also expressed dissatisfaction over cooperatives for not initiating collectively selling of agricultural produce. For, example, the members of Sadvav cooperatives said:

“It is difficult to sell our agricultural products individually; we have to go to market individually with small amount of vegetables so that we can’t bargain and get lower price. If cooperatives organize for joint selling of products, it will be easier for us”.

Even if the members were somehow pleased with cooperatives for purchasing inputs collectively but looked displeased with not having provision of jointly selling of agricultural products.

In the same way, members of the cooperative are very much committed for sharing knowledge and information with each other. Those members who have knowledge of particular crop and/or particular problem, generally, share such knowledge with other members who are in need. For example, a member of Mushroom Producer Cooperative said “we are getting a lot of support from the experienced members of our cooperative. According to them president, Goma, is very helpful in this context. She even goes to fields of other members for helping them in mushroom cultivation. I came to know that sharing of knowledge between members to members has helped to solve local problems.

Interestingly, the according to the secretary, Ram Bahadur, of Sadvav Cooperative, they are preparing voluntary team from among the interested members of cooperative to provide the technical services to the members. The team will consist of members who have experiences and knowledge in commercial farming. According to Ram Bahadur, first trainings will be provided to these members and then they will be used as Farmer Technical Assistant (FTAs) to solve the local problems. I learnt from Ram Bahadur that these FTAs work as volunteer service providers in the local areas. They will provide

Likewise, for example, the members of Bishnudevi Cooperative said that after joining the cooperatives, they got chance to participate in trainings about preparation of pickles, and now with the learnt knowledge and skills, they are preparing pickles and earning money. So they

are happy with the learnt knowledge and skills.

Leaders of cooperatives perceived cooperatives are important for farmers to organize jointly and to get different kinds of supports to solve their problems. For example, the president, Nilkantha, of Bishnudevi cooperatives said:

“There is a vast different between farmer groups and cooperatives as cooperative is a legal organization and with this legality, cooperative can conduct different kinds of service-oriented activities by its own and in partnership with different government, non-government and private organizations. The cooperative needn’t to pay local tax to government. The local tax is free for importing agricultural equipments and other necessary materials for the use of cooperatives”.

In addition to that, for example, Mushroom Producer Farmer Cooperative secretary, Ram Krishna Sapkota, said that cooperatives are registered as local farmer organizations under Cooperatives Act of MOAC. The cooperatives get pan numbers¹³ which is government’s licence for conducting and/or right to involve different businesses and activities: saving and credit, processing and marketing of agricultural produces so on and so forth. According to Sapkota cooperatives have to verify their incomes and expenditures via auditing annually. Sapkota further described that owing to cooperatives’ legal status can get loan from government organizations. According him Mushroom Producer Farmer Cooperative has taken loan from Rural Self-help Program of Nepal Rastra Bank at 8% interest rate, and has provided this loan to the members for commercial cultivation and other income generating activities.

In the same way, the secretary, Ram Bahadur Shrestha, of Sadvav Cooperative explained that cooperative is an important forum for farmers. He further said:

“If we expect more from others (government and private organizations), we can’t progress, thus we have to start first with what we have. Through this forum we can generate more resources and can assist our members technically and financially for augmenting their incomes”.

5.3. Concluding remarks

Majority of cooperatives, under my investigation, were formed by self-motivation and initiation of leaders and members of groups. Leaders of earlier groups (*which later on converted into cooperatives*) had/have experiences and interests of social works, experiences of working as community leaders, experience of working in NGO as a social motivator for the promotion of farmers’ organizations, teacher of local school and commercial farmers having interest of promoting commercial cultivation. Due to internal interests of leaders and having related work experiences earlier groups were converted into cooperatives (*See appendix 2 for details of motivational factors for converting groups into cooperatives*).

Owing to self-motivation for formation and promotion of local farmer organizations, majority of cooperatives have clearly defined objectives and targeted works for promoting extension services and strengthening farmer to farmer extension. Defined objectives and targeted plan have made the cooperatives active and functional. Cooperatives have tentative schedules for providing trainings; buying production inputs and distributing to the members, organizing general assemble, organizing social works, etc. Because of one the aims of cooperatives is to promote commercial production, cooperatives are encouraging and motivating members for commercial cultivation.

Cooperatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Therefore, some sorts of rules are necessary to run the cooperatives effectively. Cooperatives, under my study, have constitution and constitution has made easy to run cooperative activities democratically and transparently. Constitution have obviously mentioned authority of leaders and members, election of executive board members, subscribing new membership, punishment over members and

¹³ This is a license provided by government to an organization or person to bring them under the government rule and regulations of Financial Act and the pan numbers holders have to pay tax to the government if necessary.

leaders who violate rules, etc. Therefore, constitution has provided strong organizational strength to the cooperatives and paved the way for further development and promotion of self-help extension practices.

Cooperative capital is one of the strength of the cooperatives. In my case all of the cooperatives have cooperative capital fund and such fund has been used for providing defined services to the members: credit facility, collective buying and trainings etc. I found majority of cooperatives have diversified sources of fund than informal farmer groups: membership fees, share capital of the members, grant of government's at lower interest rate and support from other concerned organizations. Majority of cooperatives have strong capital fund for providing credit to the members for income generation activities. Diversified sources of cooperatives capital fund is an additional value of cooperatives than informal farmer groups.

Cooperatives are independent and autonomous legal organizations. Legality is one of the important organizational status and additional value of cooperatives than informal farmer groups. Cooperatives are registered under authorized organization and thus they are legal entities and have legal right to involve in different business activities for the benefits of members. Cooperatives have to follow government financial rules and regulations and therefore there is less chance of violating rules by the member and leaders.

The cooperatives get pan numbers which is government's licence for conducting and/or right to involve different businesses and activities: saving and credit, processing and marketing of agricultural produces so on and so forth. Moreover, legality provides broad framework to cooperatives for working collaboratively with government, non-government and private organization and that ultimately can provide better extension services to the members. Owing to legal status majority of cooperatives under my study have got financial support for providing different kinds of services (training, adult literacy program, health campaign, etc) to the members to build up their capacity for earning livelihoods. Due to legal status government, NGOs and other private organizations prefer to provide services to farmers via cooperatives rather than informal farmer groups. But I found that these supports of service providing organizations are not regular and thus cooperative only can provide services when funds are available.

Cooperatives have strong bridging social capital with service providing organizations which has helped further strengthen their capacity to provide services to their members and other concerned people. Cooperatives are protected by Cooperative Federations: cooperatives have district and national level federations for protecting right, advocacy and strengthen services of cooperatives. Networking with the federations is also one of the additional values of cooperatives than informal farmers groups. Cooperatives under my study are members of District and National Level Cooperatives Federation for getting suggestions and guidelines for promoting services. However, cooperatives don't get concrete financial supports from the federations.

Members and leaders of cooperatives have positive perceptions over the cooperatives. Basically, members are grateful with cooperatives for its credit facility at low interest rate (12%) for conducting income generating activities: commercial vegetable production, agro-related business and other domestic preparation such candle, pickles etc which has helped to increase their livelihood earning. A single member can take loan of maximum of 45,000 Nepalese Rupees (600 US dollar). Availability of larger amount of credit is also one the additional importance of cooperatives to the members and credit facility has played role to promote the commercialization of agriculture and brought changes in the economic life of farmers.

Multipurpose cooperatives have legal right to conduct provide saving services to the members and other community people. Saving account facility is also additional value of cooperatives. The 60% cooperatives under my study have been providing saving facility to the member so that member can deposit their earning in their villages.

Majority of cooperatives emphasize for horizontal flow of knowledge and information from members to members. Sharing of knowledge and guidance by experienced members to

inexperienced members for promoting income generating activities is a noble example of farmer to farmer extension. Thus exchange of knowledge has helped to promote commercialization of agriculture which is a sign of change in farming system.

Provision of income generating related trainings, also by experienced members, to other members at their doors is also additional advantage of cooperatives and also a good example of decentralized and farmer to farmer extension services. Cooperative organize trainings about commercial vegetable farming, bee keeping, pickle preparation, candle preparation etc. However, cooperatives can only conduct short duration (1-2 days) training by own resources. For the longer duration and skill oriented training cooperatives have to wait for financial support from the services providers (DADO, DLSO, NGO, private organizations). Only 60% of cooperatives provide training by their own resources and these trainings are also not organized frequently.

Collective buying is also another important advantage of cooperatives to the members. By provision of collective purchasing, members can get production inputs at normal price at their home. In my case only 60% cooperatives involve in collectively purchasing of agricultural inputs and further collective buying is not so regular and only involve in buying of fertilizer and seed of cereal crops but not other production materials for instance, plant protection items such as pesticides and agricultural implements like sprayer, watering cane, spade etc. Cooperatives, but not informal groups, can import agricultural implements without tax but cooperatives under my study don't practice importing agricultural implements for use of cooperatives and their members. Additionally, the cooperatives don't have system of selling agriculture products collectively. But for the promotion of commercial cultivation, collective selling provides additional value to the cooperatives.

Cooperatives under my study also provide social services to members. The general arenas of social works are on adult literacy, health related services and constructing small scale water canal, repairing drinking water tap etc. However, social services are not regular programs of the cooperatives. For the conducting adult literacy and distribution of vitamin capsule and family planning services, cooperatives have to wait for the financial support of the services providing organizations, for example, Ministry of Health and Ministry of Education and I/NOGs.

Leaders and members of cooperatives have positive perceptions over the services of cooperatives. Members are positive over the credit facility of cooperatives at higher amount than by groups for income generating activities. Members are happy with collective buying but not satisfied with the items of collective purchasing because cooperatives don't buy all items needed for farmers, for instance, seed of vegetables, plant protection material, agricultural implements etc. are crucial for commercial production. Lack of collective selling is also one of the matters of dissatisfaction to the members. This service is important for good prices of agricultural products. Availability of knowledge for income generating activities through experienced members and training organized by cooperatives is also matter of positive perceptions of the members. According to leader of cooperatives legality, higher share capital, provision of tax free imports, support services of service providing organizations, protection by Cooperative Federations, government's provision to provide loan at low interest rate etc are additional advantages of cooperatives than farmer groups.

Chapter SIX

6. Conclusion and recommendations

6.1. Extension services of DADO

Participatory and decentralized approach of extension was brought into practice to make clients/farmers more capable and independent to solve their problems by themselves. In order to make decentralized mode of extension more effective and self-functional, capacity development of groups and cooperatives is more important. But DADOs extension programs are still giving more focus on material supports (seed, fertilizers, pesticides, agricultural implements etc) rather than capacity development related services to the groups and cooperatives such as leadership development training, guiding to develop networking with other diversified local service providers, record keeping system, account keeping system, guiding and motivating groups for income generating and collective group activities, promoting and guiding for horizontal dissemination of knowledge and technology achieved from the DADO etc.

Due to lack of proper guidance and mobilization after formation, organizational development especially of groups is not satisfactory and also groups are ineffective in planning and organizing income generating activities by their own efforts. In most of cases, therefore, groups are just waiting material support from DADO rather than initiating their own activities to strengthen group approach and promoting farmer to farmer dissemination of knowledge and information.

Therefore, extension service of DOA and DADO is not strong and effective to strengthen organizational status of groups and cooperatives and increasing their values and subsequently promoting extension services for satisfying the needs of the members.

6.2. Extension services of groups

In majority of cases farmer groups are not effective for promoting self-help extension and collective efforts to promote income generating activities. Mostly groups are concentrated on collecting membership fees, providing credit to the members and conduct social works to get social identity. But the focus of DOA and DADO behind the formation of group as an extension approach was not only on these activities but also to promote extension services via farmer groups to bring changes in farming and increase the income of farmers. After the introduction of group approach, cohesiveness, solidarity and mutual support among members have increased abundantly but farmer groups are not effective so far to promote extension services horizontally to satisfying the needs of members and/or initiating some new agricultural practices in their areas to change the economic status of farmers.

Most of farmer groups under my study are not working effectively for promotion of knowledge sharing and/or horizontal diffusion of knowledge acquired from extension offices and also groups are not successful for generating resources locally to promote income generating activities of members. Similarly, farmer groups are not effective for developing networking with concerned services providers for support services (financial, material and technical) for initiating commercial farming based on possibility and potentiality of their geographic areas. Majority of areas where farmer groups are working have less potential for commercial vegetable production due to lack of irrigation facility but there are still other options, for example, small scale poultry farming and goat rearing and rainy season vegetable cultivation. But groups are not concentrating to promote suitable income generating activities in their areas and therefore majority groups are not effective to bring desired changes in agricultural productivity and increasing members' income based on the motto of decentralized extension system.

In the decentralized and farmer-demand extension system, role of the farmer groups is not only working collectively within the groups but also advocating and lobbying with local level service providers for support services to strengthen their organizations and welfare of the

group members. However, groups are inefficient for advocating and lobbying with the concerned support providers to make them responsive towards their needs. It is the role of groups to find out potential areas of intervention to better off their income and then demand with concerned local organizations for support but groups are not doing in this way.

Therefore, the way DOA and DADO have thought and formed groups to promote extension services horizontally with farmers' own initiation and efforts, farmers to farmer extension are not going effectively in the envisaged manner. Majority of groups are waiting continuous support from government and NGOs instead of developing their own capacity and knowledge to change their existing farming practices to better off their living standard, which is main focus of rural extension services.

Present scenario of research district revealed that extension services via informal farmer groups are, therefore, inefficient and can't be a strong and effective alternative approach to bring great changes in the farming system and ultimately better off living standard of the members.

However, with increased emphasis on farmer-led or demand-driven extension services, groups are an important tool enabling farmers to lead the way and giving them more power and bring changes in the local areas. Groups are an important medium for farmers to become recognised, economically, socially and politically. For farmers, organising in groups is an important step to have a greater voice and increase their influence for demanding the support services.

So, in this context, ball is still in the court of extension organizations (DOA and DADO) and thus they have to energise the groups to move effectively and collectively to strengthen their capacity for self-help and to be self-reliant.

6.3. Extension services of cooperatives

Most of the farmer groups but not all; which were formed by self-initiation and self-motivation of community leader, NGO motivator, school teacher and active commercial farmers; are converted into cooperatives by their own motivation and interests. Those cooperatives which were upgraded from groups are active in providing extension services to the members for supporting commercial production and other income generating activities.

From the present scenario of majority cooperatives, they can be effective extension service providers than informal farmer groups at local level for bringing changes and satisfying farming needs of majority of the members. Majority of cooperatives are providing credit, training services and other technical supports to the members by their own resources and from the support of service providers. That is why cooperatives have become a better means of increasing self-help of smallholder farmers and creating the social capital necessary for promoting extension services horizontally to some extent.

Majority of cooperatives are effective than informal farmer groups for providing support services to their members and promoting commercialization of agriculture and thus extension services of these cooperatives are somehow praiseworthy. That is why cooperatives are somewhat valuable to promote commercial production and increase farmers' incomes by providing the extension services.

Cooperatives are very committed for horizontal expansion of knowledge and therefore have been encouraging their experienced members for helping other inexperienced members in commercial cultivation. Members of cooperatives are also devoted for exchanging knowledge and information for promoting commercial farming activities. The focus of decentralized extension system is to develop a mechanism of farmer to farmer knowledge transfer to make extension system effective.

From the present state of affairs of extension services of majority of agriculture cooperatives, cooperatives could be effective local extension service providers to satisfy farming needs of majority of the members as well as other community people. Cooperatives as local farmers' organizations have been developing their capacity to be viable extension service providers at

the local level.

Nevertheless, majority of cooperatives are not still in condition to be fully self-reliant and sustainable by their own and to be alternative to top-down approach of extension. They don't have sufficient resources by their own to provide credit to all members whatever amount they need; they don't have permanent resources to provide regular trainings to the members for promoting commercial cultivation and income generating activities. Therefore, cooperatives are not also entirely self-sufficient and looking sustainable without external support to provide and promote farmer to farmer extension. However, one way or another they are trying their best to support members based on availability of resources and, therefore, far better in providing extension services than informal groups. Some additional connection with service providers and supports of DOA, DADO, DCO, and DOC can expedite the services of the cooperatives and can bring significant changes in farming and can satisfy needs of the members to increase agricultural production and boost up their life.

6.3. Lessons learnt from internship

6.3.1. Theoretical understanding

- From this internship, I upgraded my theoretical knowledge on participatory approaches of extension and why participatory approaches are important than top-down approach of extension in order to solve the local people's problems and expedite the rural development.
- I got insight about farmers' organizations, different types of farmer organizations especially of formal and informal organizations and group approach of extension and why farmer organizations and groups approach of extension are important and increasingly have been used in the of research and extension.
- I acquired theoretical understanding about cooperatives and what is the value cooperatives for self-help and collective work for the promotion of commercialization agriculture.
- Through this internship, I also get acquainted with different extension approaches adopted in Nepal in different period of time, what are the characteristics and disadvantages of these top-down oriented approaches (Conventional, T& V, Tuki, FSRE, IRDPs and Block production approach). I also came to know that why Government of Nepal rejected these approaches and adopted group approach of extension. Within group approach of extension I understood why DOA promoting group approach of extension and what is final expectation from farmer groups and cooperatives.

6.3.2. Link with theories I learnt in the classes

Social Capital (Robert Putnam, 1941; Pierre Bourdieu, 1930-2002): Social capital applies in the group and cooperatives; I learnt social capital in Social Theories of Rural Transformation (RDS 30306). In farmer groups and cooperatives we can find two kinds of social capital. One is bonding social capital that is connectedness within group and cooperative members and another is bridging social capital relation, networking and goodwill with other organizations.

I found that groups have higher bonding social capital that is good connection between members, reciprocity and trustworthiness among the members. However, strong bonding social capital of group member has not been used for the promotion of agricultural activities rather more concentrated for social works. But groups have lower bridging social capital that has lower relation and networking with other service provider organizations for getting support services. On the other hand, cooperatives have higher bridging social capital with concerning people and organizations. Due to strong bridging social capital, cooperatives are effective for collecting supports from outside organizations.

Collectivism (Geert Hofstede, 2001): Collective efforts, integrated into strong cohesive in-groups and interdependences among the members. I read concepts (individualisms and collectivism) developed by Geert Hofstede "Five Cultural Dimensions" in the course Social Theories of Rural Transformation (RDS 30306).

I found that formation of groups and cooperatives and working together are also symbols of collectivism of the societies. Either working collectively in society or individually generally determine by culture of particular society. What I found is that rural farmers who are either organized in groups or in cooperatives have tendencies of working collectively for common problems and their activities are based on societal norms, behaviours and beliefs. I found that groups have more collectivism than cooperatives due to their small organization and living in common place. Again women farmer groups have more collective nature than mixed groups.

Stages of Group Development (Tuckman, 1965): (Norming and Performing). I read this theory in Facilitating Interactive Processes of Change (CIS 31806). What I found that majority farmer groups are still in Norming Stage of Group Development because there is group cohesive among the members, groups norms and certain practices are establish; we-feeling and there is group sprit among the members but the groups are not fully mature and the groups don't have targeted goals and authenticity. Groups don't have group energy for collecting local resources, exchanging knowledge and don't have commitment for bringing changes in their practices.

However, in case of majority of cooperatives, they are in performing stage of group development because they have targeted goals and objectives, cooperatives are fully authentic, leaders and members are highly committed for providing resources for completing their targeted goals: providing training and other technical services.

Social Identify: This is also one of the theories I learnt in Social Theories of Rural Transformation (RDS-30306) and found relevant in my research. Formation of groups and cooperatives in the rural and semi-rural areas has become social identity. Leader and members of the cooperatives are devoted their time and energy for providing services to the members for social identity and social recognition. Groups and cooperatives are working and/or involving in social works for their social identity.

Social identity of women has increased by involving in groups and groups activities. Women farmers have made their identity visible in the gender-discriminated society. Women are now more visible in the society due to their involvement in group, group activities and social works. Formation of groups and cooperatives has also become matter of societal identity: groups of this village or that village; group of lower caste or women; cooperatives of this village or that village etc. Therefore, groups and cooperative have played to make people visible in the society.

6.3.3. Acquired skills

- This internship has upgraded my skills in developing research proposal, preparing structured and unstructured/semi-structured questionnaires for collecting data from the fields. Such skills would be helpful while developing research proposals for agriculture and social science related topics in the days to come.
- Through this internship, my communication skills (*informal and formal interviewing*) and critical observation skills (*observe the group meetings critically, interaction between farmers and farmers, and between farmers and extension workers and their decision making styles etc*), judgement over the different activities of group and cooperatives and quick decision making (*if farmers reject to take part in interviews etc, what to do or how to convince him*) has increased. These practical field oriented skills are very important for the social science student and professionals working in the field of extension/communication and rural development.
- I also acquired skills in recording the data, preparing field notes after interviewing; and coding and analysing the gathered data.
- Via this internship, I also gathered skills in writing research report and linking theory with the practice that is correlating theories with practical information gathered from the field.

6.3.4. Recommendations

- Farmer groups are formed based on top down way rather than bottom up way (by the motivation and initiation of farmer themselves). Extension organizations (DAO and DADO) often view creation of farmer groups as a positive intervention and/or a way of increasing self-help among the farmers to fulfil their local needs. But in reality groups formed by the drive of extension agents are not effective in promoting self-help and collective action to bring significant changes in the farming and in their income rather these groups are expecting continuous help from the extension services. Therefore, DOA and DADO need to act as catalysts and bring out self-organising capacities of farmers based on their motives, needs and capacities.
- Guiding and mobilizing groups properly after formation, for example, to set their targets, prepare the groups' constitution, generating more financial resources locally and to plan seasonal and annual activities is very crucial to strengthen the group activities. Additionally, strengthening organizational capacity of groups (group management and leadership development trainings, account keeping and record keeping system) is also necessary for the progress of groups and to promote their activities. But DADO doesn't have program in this regards. Effective motivational support and group strengthening program of DADO can facilitate and enable groups to achieve more ideas and motivate to conduct collective group activities and then can help to better off decentralized extension services. Therefore, DADO needs to give more focus to group mobilization programs to upgrade the groups from norming stage of development to performing stage of development.
- Majority of the groups don't practice of sharing acquired knowledge and information from the trainings, workshops and tours to other members. Lack of horizontal expansion of knowledge has raised questions over the effectiveness of group approach extension for promoting extension services horizontally by farmer groups. In this context, the extension workers necessitate to guide the groups to use group platform for sharing of knowledge to fulfil their local needs.
- Field level extension workers are not motivated to provide motivational extension support services to groups and cooperatives due to inadequate incentives and lack of transparent rewards and punishment system. Therefore, field level extension worker are very irregular to the fields and are also motivated to misuse the resources which were supposed to provide farmer groups and cooperatives. Rampant corruption within DADO system, lack of proper rewards and punishment system has greatly hampered extension system of DADO. Therefore, DAO, head of the government extension system, need to give careful attention over the activities of DADOs and their rewards and punishment system to expedite the extension support system.
- Present focus of DOA and DADO to upgrade most of the farmer groups into cooperative to promote decentralized extension services is looked irrelevant. Cooperatives only can success and effective if leaders have vision and experiences to run organizations effectively; self-motivated for promoting self-help and have capacity to strengthen bridging social capital. Therefore, only upgrading groups into cooperatives is not panacea to strengthen farmer to farmer extension rather better first analyse whether groups' leaders and member have interests and capacity to promote farmer to farmer extension or not. It is better to upgrade groups into cooperatives if these groups have capacity and interest to promote self-help. DCO and DADO need to be attentive in this matter.
- Cooperatives to be sustainable and effective and to provide extension services to the members must be economically viable. In order to generate resources from different service providers, cooperatives need to have good networking with them. Only effort of cooperatives may not be sufficient for developing good networking and working collaboration with local service providers. For this, facilitative roles of concerned government organizations are very important. So, DOC, DCO, DOA and DADO need to play supportive role to the cooperatives for the development of strong networking and generating resources locally to strength their support services to the members.

References

- Acharaya, R. (2006). Cooperative Communication, Annual Issues, National Cooperative Development board, Lalitpur, Nepal.
- Bajracharya, P. (2006). Agriculture Business Promotion through Cooperatives: Problems and Prospects, Cooperatives Communication, National Cooperatives Development Board, Harihar Bhawan, Lalitpur.
- Basnyat, B.B. (1991). Agriculture Extension System in Nepal. Development Pioneer PVT. Ltd, Satdobato, Kathmandu.
- Bernard, T. A., S. Taffesse, E. Gabre-Madhin (2008). Impact of Cooperatives on Smallholders' Commercialization Behaviour: Evidence from Ethiopia, *Agricultural Economics* 39 (2008) 147–161.
- Bijman, J. (2002). Essays on Agricultural Cooperatives: Governance Structure in Fruit and Vegetable Chain. A PhD Thesis Submitted to Erasmus Research Institute of Management, Erasmus University, Rotterdam.
- Black, A. W. (2000). Extension Theory and Practice: A Review, *Australian Journal of Experimental Agriculture*, 40 (2000) 493–502, Edith Cowan University, Perth.
- Bo, S., O. Winn and N. Sint, (1999). Strengthening Farmers' Organizations for Watershed Management in Myanmar: A Training Manual. Participatory Watershed Management Training Asia, Kathmandu.
- CATC, 2002. Trainer's Manual of Agriculture Extension, Central Agriculture Training Centre (CATC) DOA, Lalitpur.
- CFN (2008). Cooperative Federation of Nepal (CFN). Department of Cooperatives, Kathmandu, Nepal
- DCO (2008). Cooperative Union and Organization Registration and Regulation Related Indicator. Department of Cooperatives (DOC), Kathmandu.
- DCO (2007). Three Years Interim Planning: In the Cooperatives Arenas. Department of Cooperatives (DOC), Kathmandu.
- Devkota, C.K, 2000. Key Features of Successful Farmer Groups and Tips for Effective Mobilization, Lecture note on Training on Agriculture Extension Methodology, Department of Agriculture (DOA), Lalitpur.
- DOA, (2008). Profile of Farmers' Groups, Directorate of Agriculture Extension (DOAE), Department of Agriculture (DOA), Lalitpur.
- DOAE (2007). Agricultural Extension Programme Directive and Norms. Directorate of Agriculture Extension (DOAE), Department of Agriculture, Lalitpur.
- Fane, I. and et al (2008). Linking Actors for Potato Production and Marketing, ROPARWA and IMBARAGA Initiatives in North-Western Rwanda. In: Winnink, B., W. Heemskerk (eds.). Farmers' Organizations and Agricultural Innovation. Case Studies from Benin, Rwanda and Tanzania. Bulletin (374) Development Policy and Practice. Royal Tropical Institute (KIT), Amsterdam.

FAO (1998). Small farmer group associations: Bringing the poor together. FAO experience: SFGA organization and management

Francesconi, G.N. (2009). Cooperation for Competition: Linking Ethiopian Farmers to Markets. A PhD Thesis Submitted to Wageningen University, Wageningen.

Gianatti, T.M and P. Carmody, (2007). The Use of Networks to Improve Information Flows Between Grower Groups and Researchers. *Field Crops Research 104* (2007) 165–173.

Hekelius, K. (1996). Cooperative Value: Farmers' Cooperatives in the Mind of the Farmers. A PhD dissertation, Swedish University of Agricultural Sciences, Department of Economics.

IDS (1987) Interaction for Local Innovation. Institute of Development Studies (IDS), University of Sussex, Brighton In: Chambers, R., A, Pacey, L. N., Thrupp (eds.) (1989). Farmer First: Farmer Innovation and Agricultural Research. Intermediate Technology Publication, London.

Kaburire, L and S. Ruvuga (2008). Networking for Agricultural Innovation. The MVIWATA National Network of Farmers' Groups in Tanzania. In: Winnink, B., W. Heemskerk (eds.). Farmers' Organizations and Agricultural Innovation. Case Studies from Benin, Rwanda and Tanzania. Bulletin (374) Development Policy and Practice. Royal Tropical Institute (KIT), Amsterdam.

KIT (2008). (Wennink, B., S. Nederlof and W. Heemskerk (eds.) (2008). Access of the Poor to Agriculture Services: Role of Farmers' Organization in Social Inclusion. Development Policy and Practice Bulletin (376). Royal Tropical Institute (KIT), Amsterdam.

Lema, N.M., B.W. Kapange (2008). Farmers' organizations and Agricultural Innovation in Tanzania. The Sector Policy for Real Farmer Empowerment. In: Winnink, B., W. Heemskerk (eds.) Farmers' Organizations and Agricultural Innovation, Case Studies from Benin, Rwanda and Tanzania. Bulletin (374). Development Policy and Practice. Royal Tropical Institute (KIT), Amsterdam.

LEISA (2007). How farmers organise. Editorial page, 23.1, March

Madukwe M. C (2006). Delivery of Agricultural Extension Services to Farmers in Developing Countries. Retrieved on January 3, 2009 from: <http://knowledge.cta.int/en/content/view/full/3009>

MOAC (2007). Statistical Information on Nepalese Agriculture. Agri-business and Statistics Division, Ministry of Agriculture and Cooperatives (MOAC), Kathmandu.

Murray, P. (2000). Evaluating Participatory Extension Programs: Challenges and Problems. *Australian Journal of Experimental Agriculture 40* (4): 519-526.

M. Rankin and I. Russell (2006) Emerging Structures of Farmer Cooperatives in Vietnam: Case Studies from the Mekong Delta, The University of Queensland, Gatton, Queensland, Australia, Supply Chains in Transitional Econ. pp. 365-371

Oleson, B. (1999). Department of Agribusiness & Agricultural Economics, Faculty of Agricultural & Food Sciences, University of Manitoba Winnipeg, Manitoba, Retrieved on April 02, 2009, from: http://www.umanitoba.ca/afs/agric_economics/ardi/history.html

Pant . K. P. (2002). Gender Perspective on Characteristics, Process and Performance of Farmer Groups Organized by District Agriculture Development Offices (DADO), Chitwan, Master Degree Thesis in Agricultural Extension, Institute of Agriculture and Animal Science (IAAS), Rampur.

Pretty, J and Ward, H. (2001). Social Capital and the Environment, University of Essex, Colchester, UK, World Development Vol. 29, (2) pp. 209-227, Elsevier Science.

Sharma G.P. (2008). Formation and Mobilization of farmer groups, Directorate of Agriculture Extension (DOAE), Department of Agriculture, Lalitpur

Sharam. K. C (2008). Farmer to farmer Extension: An Experience & Lessons from Farmer Group Approach of Nepal, Proceedings of Farmers to Farmers Extension Workshop, by Directorate of Agriculture Extension Harihar Bhawan, Lalitpur.

Shrestha, M.P. (2006). 50 Years of Cooperative Movement in Nepal: Is It Enough? Cooperative Communication, Annual Publication (2006), National Cooperative Development Board, Lalitpur.

Thapa, P. and K. Koirala, (2006). Effectiveness of Farmers' Cooperatives in Enhancing Income from Farm Income from Farm Sales, *Cooperatives Communication*, Annual publication (2006), National Cooperatives Development Board, Lalitpur.

Uphoff, N. (1994). Local Organization for Supporting People-Based Agriculture Research and Extension: Lesson from Gal Oya, Sri Lanka In: Scoones, I, Thompson, J. (eds.); Chamber, R. (forward) (1994). *Beyond Farmer First: Rural People Knowledge, Agricultural Research and Extension Practice*. International technology publication, London.

Van den Ban, A.W. and H.S. Hawkins, (1996). *Participation of Farmers' in Extension Programs, Agricultural Extension*, Blackwell Science, Inc, Cambridge.

Wennink, B., S. Nederlof and W. Heemakkerk (eds.) (2008). Access of the Poor to Agriculture Services: Role of Farmers' Organization in Social Inclusion. Development Policy and Practice Bulletin (376). Royal Tropical Institute (KIT), Amsterdam.

Thank you!

Appendix

Appendix1: Situation of group welfare fund

S.N	Name of farmer group	Number of members	Membership fee/month	Bank account	Total amount in welfare fund	Use of welfare fund
1	Ganesh seed production farmer group	25	40/- (NR) (0.55US dollar)	Yes	75,000/- NR (1000 US dollar)	Only provide loan to members
2	Hariyal women farmer group, Imadol	30	100/- (NR) (1.33 US dollar)	No	2,00000/- (NR) (26666.66 US dollar)	Only provide loan to members
3	Bishakhunarayan fruit and vegetable farmer group	26	50/-NR (0.66 US dollar)	Yes	30,000 NR (400 US dollar)	1. Provide loan to members + 2. Use for collectively marketing of fruit produced by members.
4	Naudhara women farmer group	19	30/NR	NO	41,000/- NR (546.66 US dollar)	Only provide loan to members
5	Anandeshore fruit and vegetable farmer group	17	25/-NR (0.33 US dollar)	NO	40,000/-NR (533.33 US dollar)	Only provide loan to members
6	Saptarishi women farmer group	22	50NR (0.66 US dollar)	NO	170,000 NR (2266.66 US dollar)	Only provide loan to members
7	Kalidevi women farmer group	40	100/- NR (1.33 US dollar)	Yes	250,000 (3333.33 US dollar)	1. Provide loan to members + 2. Collectively buying the seeds, fertilizer and pesticides for group members use purposes+ 3. Raising the seedling on the common land for the group members + 4. Commercial cultivation of flower for increasing the group fund

Note: The amount of money on welfare/group fund doesn't correlate with the age of a group as, sometimes, if all members agree, they distribute total collected money among the members and again they start collecting.

Appendix 2: Motivational factors for converting farmer groups into cooperatives

S.N.	Name of Cooperatives	Reasons of motivation
1.	Bishnudevi multipurpose agriculture cooperatives, Godawari	<ol style="list-style-type: none"> 1. The president, Nilkantha, of this cooperative, was an active local leader and used to involve in different kinds of social works, and also has great interest to continuously involve in social works. 2. Nilkantha as a president of group had great interest to convert the group into cooperative to strengthen its capacity and scope. In 2005 Nilkantha got a chance to participate in the pre-cooperative education training organized by RATC, Naktajij and from that training, Nilkantha motivated to convert group into cooperative, 3. Nilkantha also got the advices from the DCO for registering the group into cooperatives, and members of this cooperative were also interested to form a cooperative. 4. Finally, they converted group formed in 1998 into cooperative in 2006.
2.	Sadvav multipurpose agriculture cooperative, Lubhu	<ol style="list-style-type: none"> 1. Secretary, Ram Bahadur Shrestha, of this cooperative was working in an NGO before joining in group and cooperative. While working with an NGO Shrestha used to work with farmers and their organizations for providing different kinds of technologies related to commercial farming and sericulture. 2. From job of NGO, Shrestha has acquired a lot of experiences about forming and running the farmers' organizations, for example, groups and cooperatives. 3. Shrestha had a lot of interest to return to his areas/village and to work with the local people. Therefore, Shrestha took initiation to form a group and later converted the group into cooperative with an aim to help local people.
3.	Sidhiganesh women agriculture cooperatives,	<ol style="list-style-type: none"> 1. President, Reshma Rahut, of this cooperative is 10 class passed women. Reshma is a house wife and had/has interest in social work. 2. First, Reshma got motivation from ASC extension worker to form a group. 3. Reshma got chance to participate in pre-cooperative education training and from that training, she motivated to register the group into cooperative. 4. The Officials of DCO motivated Reshma to register group into cooperative. According to Reshma, the DCO officials even promised her to provide some financial support if she registered the group into cooperative, 5. The other members of group also supported to Reshma to convert the group into cooperative.
4.	Mushroom producer farmers cooperative, Chapagaun	<ol style="list-style-type: none"> 1. President, Goma, of this cooperative is very active migrant women and grows mushroom and earning good money from this occupation. Being a commercial mushroom grower, Goma wanted to promote mushroom cultivation in the village. 2. First, with the initiation of Goma, and Krishna Sapkota, a local school's teacher forms a mushroom producer group in the village in 1996 including other farmers of the village. Sapkota is teacher as well as social worker. 3. After working 5 years in a group, Goma and Ram Krishama motivated to convert the group into cooperative by seeing the progress and activities of Dairy cooperative of their village. 4. Goma and Sapkota also got encouragement from a JT, Narayan Gharti, of ASC Chapagaun's to register the group into cooperatives. 5. Finally in 2001 they registered the mushroom producer group into mushroom producer cooperative with the support and interest of all members of group.
5.	Vegetable and mushroom producer farmers cooperatives, Chapagaun	<ol style="list-style-type: none"> 1. Ratna Bahadur Desai, president of this cooperative is good commercial vegetable grower. Desai's main source of income is commercial vegetable cultivation and he wanted to promote the vegetable cultivation in the village. 2. Desai and other members of group used to get motivation from the ASC extension workers to convert the group into cooperative. 3. Desai as a president of farmer group got chance to participate in the farmer tour organized by the DADO, Lalitpur to observe the activities of farmers' cooperatives in another district. Desai was impressed the activities of cooperatives in the tour. 4. When Desai returned from the tour went to DCO for asking the further information about cooperative. So, finally the group was converted into cooperative.

Appendix 3 : Initiation to form groups and then conversion of groups into cooperatives

S. N	Name of Cooperatives	Date of group formation and by whose motivation	Group registered into cooperatives	Who motivate to register into cooperative?
1	Bishnudevi multipurpose agriculture cooperatives, Godawari	In 1998 (The group was formed by initiation of farmers)	2006	Self-motivated: due to having interest in social work and participation on the pre-cooperative education training
2	Sadvav multipurpose agriculture cooperatives, Lubhu	In 2000 (Group formed by self –motivation of farmers)	2005	Self-motivated: due to work experience of an NGO
3	Sidhiganesh women agriculture cooperatives,	In 2002 (Group was formed by initiation of ASC)	2006	Motivated from the pre-cooperative education training + DCO officials motivate to register in cooperative
4	Mushroom producer farmers cooperative, Chapagaun	In 1996 (Group was formed by initiation farmers)	2001	Self motivated by seeing the activities of local dairy cooperatives + advices of ASC extension workers
5	Vegetable and mushroom producer farmers cooperatives, Chapagaun	In 1997 Group was formed by initiation of ASC	2005	Motivated by the ASC extension workers to form cooperatives+ encouragement by seeing the activities of other farmer cooperatives in the farmer tour