

Farmer Cooperatives for Food Self-sufficiency, Agricultural Commercialization, and the Socio-economic Development of Nepal

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ABSTRACT

In Nepal, where ninety percent of the population depend on agriculture for their livelihood, the country as a whole has had a food deficit for the last 26 years, mainly due to subsistence farming, small and fragmented land holding size, low agriculture input and productivity, uneconomical farming units, and lack of decentralized grassroots-based agricultural developmental policies and programs. Widespread poverty, malnutrition, political instability, resource degradation, and a serious food deficit have become major national problems. Agricultural policies and actions for raising farmers' living standards, achieving food security, and enhancing the natural resource base are urgently needed. Farmers need to begin thinking as a group and take unified action in order to achieve these overarching developmental goals and to sustain their livelihood and agriculture. Farmer cooperatives which are formed by the farmers, governed by the farmers, and run by the farmers in a democratic fashion are an ideal mechanism to increase agricultural production and farm income, enhance agricultural sustainability and food self-sufficiency, while promoting Nepal's socio-economic development. Through cooperatives, farmers are empowered and economic growth is stimulated. Appropriate governmental policies, programs, rules/regulations, and support systems are essential for the success of farmer cooperatives.

Introduction

Farming remains one of the most significant techniques developed by human beings, and most people depend on agriculture for their livelihood. Global agriculture has witnessed

many changes and transformations in the past 60 years. Some countries tried centralized production systems while others relied on individual entrepreneurship development. A few countries have promoted corporate farming at the expense of small, individual farming units. Globalization has further impacted the production structure and the economics of farming units in many countries. From the highlands of the Philippines to the flatlands of Louisiana in the USA, every farmer is concerned with agricultural problems such as labor availability, marginal profitability, economies of scale of production, crop loss due to natural disasters, lack of interest in farming by the younger generation, and increasing global market competition.

As anyone can imagine, large corporations always look for big profit margins whether it comes from agricultural production, marketing, processing, or international trade. Profit goes to the company rather than to the individual farmer. With a lot of capital in hand, mechanization, larger scale production, an established marketing network, and favorable government policies and programs, large corporations easily outcompete small farmers. As a result, small farmers gradually disappear from the agricultural landscape. Big farms become larger and larger. When agricultural production is driven more by short-term gain than by long-term food security, safety, and building a sustainable communities; all of society will be on the verge of collapse. Sooner or later, society will have to pay the price for this acquiescence to negligence and greed.

More than ever before in the history of agriculture, there is now clearly a need for individual farmers to think and act as a group in order to sustain their livelihood and agriculture as well as their socio-economic well being. Farmer cooperatives, in their various forms, have existed since the dawn of agriculture. We still find communal lands and cooperative practices all over the world. As cooperatives are formed by the farmers, governed by the farmers, and run by the farmers, farmer cooperatives are very democratic entities and serve as the venue for farmers to collectively compete with established companies and landlords in agri-business. Through cooperatives, farmers are empowered and economic growth is stimulated.

From European schools to the California and Chicago schools of thought, farmer cooperatives have become the major emphasis for agricultural commercialization, increased food production, and enhanced socio-economic development (Torgerson et. al., 1997). Cooperatives have become the major vehicle of social transformation, especially for small-size land holding farmers who lack resources and have difficulty competing with large entrepreneurs or business corporations. When commercialization of agriculture becomes an issue, especially in small landholder situations, cooperatives become the most appropriate response. Cooperatives preserve the interest of the producers, add value to agricultural commodities, empower farmers, and increase the competitiveness of farmers in global competition. Certainly, cooperatives are based on self-help strategies. In fact, the cooperative movement is a social movement of small farmers and is geared towards socio-economic development of the community.

There are many cooperative programs, initiatives, and associations today in almost every country worldwide. Cooperatives are locally organized groups of farmers for service-related, production, processing, marketing, supplies, credit/finance, or consumer cooperatives. They follow a bottom-up structure rather than top-down protocols of governance and functioning. Cooperatives are found to be the best means where farmers lack resources for production, agro-processing, and marketing, or if they have very small landholdings and lack economies of scale of production. Cooperatives also serve as means for better resource conservation and utilization. These self-help groups certainly are more locally oriented than the large companies.

The USDA Rural Development classifies cooperatives in three categories: marketing cooperatives, farm supply cooperatives, and service cooperatives. In the US, there were 2,896 agricultural cooperatives in 2005, with a total of 2.6 million members. They had a net business volume of \$106.5 billion with a net income of \$2.5 billion (USDA, 2007). These cooperatives covered major business activities such as beans and peas, cotton, fruit and vegetables, grain and oilseed, livestock, nuts, poultry, rice, sugar, tobacco, wool, and other marketing with a total of 1,412 marketing, 1,128 farm supply and 356 service cooperatives. The cooperatives were the major employer in rural areas with 125,000 full-time workers.

The Indian Cooperative Movement that began in 1904 with the Cooperative Credit Societies Act has reached over half a million cooperative societies today with a membership of over 230 million (Verma, 2005). Cooperative networking in India covers almost every village in the country. These cooperative societies disburse agricultural credit, distribute fertilizers, produce sugar, clothes, and market many agricultural commodities. The All India Cooperative Institute Association was established in 1929. From there The National Cooperative Union of India came into existence in 1961. The National Cooperative Union of India started overseeing the cooperative movement in India. Indian Farmers Fertilizer Cooperative, which was registered in 1967, is one of the major agricultural cooperatives in India. It is responsible for the production and the distribution of fertilizers. The diversity of services offered by cooperatives in India include credit, production, processing, marketing, input supplies, distribution, dairy, textile, sugar, handloom, and urban banking. The Cooperatives in India have contributed greatly to the socio-economic transformation of Indian people and the rural development of India; however, the available literature suggests that not all the cooperative initiatives in India are successful. Among the various reasons are an overdependence on governmental assistance, poor participation in management by members, lack of professionalism, bureaucratic control, and political interference. Lack of benefits to the common people is also identified as a reason for the failures (Mayoux, 1995; Press Information Bureau, 2007).

The cooperative movement in Nepal

Although cooperative activities have existed since traditional times in Nepalese society, modern cooperative initiative date back to 1956 with the establishment of thirteen credit

cooperatives in Chitwan District to assist flood victims. Establishment of the Cooperative Bank in 1963 that was converted into the Agricultural Development Bank in 1968 and the formation of the Land Reform Savings Corporation in 1966 can be cited as the major cooperative ventures in the early era of the cooperative movement in Nepal (NCFN, 2007). It appears that until 1990 most cooperative ventures were limited to credit and finance and were controlled by the government. The Cooperative Act of 1992 provided freedom for the farmers themselves to organize and establish cooperative societies. As of 2004, it is reported that a total of 7,598 cooperatives exist in Nepal, and of the total 2,979 were multipurpose cooperatives, 2,345 credit unions, 1,410 milk producer cooperatives, 154 consumer cooperatives, and 710 other types of cooperatives (Mali, 2005). It is reported that consumer cooperatives are failing mainly due to the opening of department stores nationwide. Cooperatives are also found in the areas of transportation, vegetable production, coffee and tea production, wood carving, furniture, the cottage industry, carpet industry, and in ginger production.

Even though governmental agencies, international institutions, Non-Governmental Organizations, and other stakeholders have put some effort into the cooperative movement in Nepal, the results are far from satisfactory. Most profitable cooperatives are urban-based, and except for finance, credit, and dairy cooperatives, the rural sector has not felt the presence of the cooperative movement in the country. Cooperative movements have to strive for the inclusion of women, dalits, poor people, and other oppressed classes of society. Some of the reasons identified for failure of the cooperative movement in the country include: lack of national vision for the cooperative movement, lack of adequate monitoring, lack of inclusion of every sector of society in the cooperative movement, lack of managerial skills and professionalism, lack of working capital, lack of technological support and development, and lack of credibility (Mali, 2005). As the governmental negligence and the lack of vision and commitment appear to be the main reasons for the failure of the cooperative movement in Nepal, commitment and willingness on the part of political parties and non-profit organizations have also been insufficient.

Nepal is passing through an alarming food production and supply situation. With the exception of Terai, there is a net deficit in cereal production and consumption in Nepal (Gill, 1996). About 36% of Nepalese consume less than the minimum daily calorie intake. Forty-seven percent of hill households do not have food to meet their recommended minimum food intake. Cereal grain, per capita, has been continuously declining over the past decade and has reached below 185 kg per year. With its 2,968,000 ha of cultivated land and 1,758,000 ha of pasture land (LRMP, 1986), Nepalese agriculture has the great challenge of increasing agricultural production to enhance food self-sufficiency and food security in the nation.

Nepal, which was once a net exporter of agricultural commodities, has now become a net importer. Nepal's rice and rice products export was 28,000 metric tons in 1979-1981. It declined to less than a thousand metric tons in 2002 (ESSA, 2004). Meanwhile rice imports

increased from 7.9 thousand metric tons to 19.9 metric tons during the same period. In 2002, net trade deficits were 1.7 thousand metric tons for maize and maize products, 2.3 thousand metric tons for wheat and wheat products, and 6.7 thousand metric tons for vegetables. Nepal's positive agricultural trade balance of 14.3 million US dollars in 1979-81 has turned into a negative balance of 151.6 million US dollars in 2002.

Nepal's population may well reach forty million by 2015. In order to meet the future food demands, the country's food production has to be increased by 66% by 2011 (Chitrakar, 1997), and 100% by 2015. Nepal has been importing food worth over 100 million US dollars since the mid-nineties. If agricultural production does not increase, by 2015 the country will be spending at least 300 million US dollars annually for food imports. This will strain the economy and jeopardize infrastructural development. It is, therefore, urgent for Nepal to implement agricultural policies that lead to increased food production. To have a food balance in the country in 2015, Nepal has to increase its food production by at least 4 million metric tons. At present, Nepal produces about 4 million metric tons of food and consumes 5.5 million metric tons.

Unless appropriate strategies are formulated and immediate bold measures are taken to increase agricultural production, malnutrition, poverty, and mass hunger will result. Social unrest, political instability, resource degradation, and economic devastation will soon be beyond control. Agricultural policies and actions for raising farmer's living standards, achieving food security, and enhancing the natural resource base are urgently needed. In order to attain food self-sufficiency, agricultural commercialization and socio-economic development in Nepal and to safeguard Nepalese society from its agro-environmental devastation and socio-economic crumbling, a massive cooperative movement across the nation is urgently needed. Through farmer cooperatives, important agricultural developmental objectives such as enhancing agricultural production, adding value to agricultural produce, enhancing marketing of agricultural commodities, and developing technologies and practices related to agricultural production can be achieved. Cooperative movements should be the top national agenda of the Nepalese government. Cooperatives should be formed not as top-down entities but as completely bottom-up associations. They should include the necessary training, education, and outreach with respect to cooperative formation, feasibility studies, management, monitoring, and their promotion.

Land rights and appropriate land holding size are crucial for farmer cooperatives. Due to the highly distorted land distribution in Nepal, immediate land reform is very critical for any agricultural development program to succeed. Land reform policies should take into account both the land quality (e.g. Khet land and Bari land) and the land holding size. Improved crop varieties, animal breeds, production techniques, fertilizer management, diseases and pest management, and irrigation are critical for increased crop yields. Appropriate marketing mechanisms, price incentives, and financial assistance are vital for the marketing of agricultural produce by farmer cooperatives.

Through the formation of farmer cooperatives across the nation, farmers, ethnic groups, women, rural youth, and the suppressed classes will feel that they are part of nation building and are sharing in the fruits of economic growth. It will bring them a sense of pride and dignity. Farmers will derive income from multiple sources including production and marketing co-ops, value-added commodities, and trade. Trade profits will go directly to the farming communities rather than to a few intermediaries in the cities. Due to the decentralized grassroots level of production, marketing, and processing of agro-commodities in the cooperative mode of nation building, farmers and the rural population will feel that villages and rural areas are as good as cities for living. This will help to stop rural to urban migration. Governmental subsidies and support systems will directly help rural communities and the rural infrastructural development. People will generate income through various sources including farmer cooperatives, employment at farmer cooperatives, and other agricultural production activities.

Types of Farmer Cooperatives

Although farmer cooperatives are classified primarily as marketing, farm supply, and related-service cooperatives in most of the available literature, various types of farmer cooperatives can be listed as follows:

1. Marketing Cooperatives

These include commodities or commodity groups such as cotton, dairy, fruit and vegetables, poultry, and livestock marketing cooperatives. Marketing cooperatives' primary objective is marketing the farm produce of its members. Most of the market volume of this cooperative comes from the farm produce of its members. As marketing is a very difficult task for farmers, establishing a marketing cooperative is very important for commercialized agricultural development and to maintain the farm profit. Several marketing coops have failed due to their inability to predict prices or make prompt market decisions. Marketing co-ops are very risky if the managers are very aggressive and high risk takers. A marketing co-op requires a lot of flexibility, negotiations, and guesswork.

2. Farm Supply Cooperatives

Farm supply cooperatives are vital for the dependable supply of farm inputs such as farm machinery, equipment, fertilizers, housing materials, livestock feed, seed, and petroleum products. They may also handle items such as lawn equipment, food items, or necessary items for gardening. Farm supply cooperatives may be established at the local, regional, or the national level depending on the nature of farm supply needs. Cooperative endeavors such as feed mills, farm machinery, and fertilizer plants can be established at the regional or national level, whereas the farm supply depot can be established at the local level.

3. Service Cooperatives

Service Cooperatives are set up for special services such as credit services, telephone/electric service, insurance services, irrigation services, grain banks, trucking, artificial insemination, cotton ginning, ginger drying, rice drying, etc. Service Cooperatives may also provide items such as chemicals, diesel, oil, gas, feed, seedlings, and seeds to its members. Soil testing, crop scouting, and land leveling are other services a service cooperative may provide to its members.

4. Production Cooperatives

Farmer Cooperatives for agricultural production such as milk, fruits and vegetables, poultry, etc., fall into this category. In a true sense, it appears that the French Worker Cooperatives, which are based on the principle of collective entrepreneurship, are the prime example of Production Cooperatives (Bataille-Chedotel and Huntzinger, 2004).

5. Processing Cooperatives

Farmer cooperatives for processing agricultural commodities such as fruits, vegetables, flowers, etc., are important to minimize losses from perishable commodities and increase income from these commodities. Processing cooperatives are not only found to have helped the economy to increase foreign earnings, but they also have enhanced production of perishable commodities. Since a large portion of produce can be lost due to the lack of appropriate processing facilities, establishing processing cooperatives is vital for successful agricultural commercialization in Nepal.

6. Environmental Cooperatives

Farmer Environmental Cooperatives are attracting the interest of policy makers and governments around the world. The Netherlands, the UK, USA, and other countries have some sort of environmental cooperative programs already in place. Sustainable agriculture, rural development, and nature farming programs in the Netherlands (Wiskerke et al., 2003), and tree growers' cooperatives in India can be cited as Environmental Cooperatives. Rural development through environmental cooperatives has been viewed as a new mode of development, especially in European countries.

7. Tourism Cooperatives

Many countries around the world have adopted tourism cooperatives as a means of promoting rural tourism, agri-tourism, or eco-tourism. Countries like Canada, Spain, India, the Philippines, and Australia have developed tourism cooperatives. India expects to utilize existing farmer cooperative networks in its tourism promotion and development (Verma, 2005). The Farmer Tourism Cooperatives may offer outdoor recreational activities such as fishing, hunting, horseback riding, and farm walking for tourists. Educational learning experiences such as cooking, canning, and entertainment such as harvest festivals and

planting festivals may be included in tourism cooperative packages. Petting zoos, guided tours and u-pick operations are additional tourism activities. Visitors enjoy seeing farm animals such as ponies, pigs, goats, sheep, and chickens. Activities such as milking cows, hay baling, and feeding animals are enjoyed by every visitor, and especially by children. Visitors enjoy the peaceful, country style and spectacular sunsets and sunrises at the farm. Farmer Tourism Cooperatives may offer facilities for children to play, BBQ grills, swimming pools and observation decks. Farm rentals, holiday apartment rentals, and bed and breakfasts are other examples of tourism packages that the farmer tourism cooperatives can offer.

Developing a Farmer Cooperative

Like any other business a farmer cooperative requires a thorough feasibility study evaluating the idea of the cooperative's creation, group organizing, securing capital, construction and infrastructural development, hiring management personnel, equipment purchases, manpower mobilization, and a system of monitoring and evaluation to assess the progress made. It is very important to anticipate market competition, governmental support, inclement weather, or even regional/national/global markets while planning for a cooperative.

The nature and the structure of the governing body, terms and conditions, policy outlines, membership requirements, fees, record keeping, etc, are additional factors that are very important and have to be well-thought out and considered while setting up a cooperative. Often, the Cooperative Board sets up the policy and the manager does the day-to-day work. Each co-op member has a nominal one-time membership fee. The members should feel that they belong to the cooperative in order to have the best cooperative.

As with any other business, the farmer cooperatives have their own set problems. The grower/member relations, the sheer competition with private companies and marketing networks, seasonal labor, insufficient resources, and low crop yields are some of the problems relating to an agricultural cooperative; while price fluctuations, stricter governmental regulations on environmental quality, natural disasters, and trade liberalization may be additional problems. Due to increasing prices for fuel, fertilizer and pesticides, along with governmental regulations, farmers may be losing their competitiveness in international trade. In order to improve its competitiveness and minimize the price gap, a farmer cooperative may have to evolve into a more competitive entity, perhaps through collaboration with marketing networks, product diversification, and vertical integration. Farmer cooperatives should always strive for increased income for its members, environmental quality and sustainability, and increased rural development. For the success of a farmer cooperative, one should establish excellent communication between members, empower members in decision making, maintain the economies of scale, and seek governmental support, especially during a natural disaster. Appropriate governmental policies, programs, and price support are very crucial for the sustainable cooperative movement for socio-economic transformation of rural people and

the economy. Since the cooperatives are grassroots based organizations and are more concerned with members' welfare, environmental issues, and the socio-economic development of their locality, any governmental support to farmer cooperatives must be viewed from the broader perspective of sustainable rural society development rather than just as subsidies to small farmers. Clear organizational structures, governance, operating procedures, norms and guidelines are important for the success of a cooperative movement.

Limitations and Challenges of Farmer Cooperatives

The gradual disappearance of family farms may be cited as one of the major obstacles in the development of farmer cooperatives, as big companies with vertical integration and with a competitive market edge are flourishing globally. Small farms are disappearing while larger farms are emerging. It would be naïve to expect that 90% of the Nepalese population will continue to stay farming populations as the socio-economic conditions change. A national strategy of land consolidation, operating farm size, and farm protection must be established for sustainable farmer cooperative development in Nepal.

Market competition is another challenge for a farmer cooperative. A large company may have more resources and can protect itself from price fluctuations while a small farmer cooperative may lose money due to resource constraints. A farmer cooperative may be competing with another farmer cooperative; therefore, cooperatives should enhance their competitiveness, while appropriate governmental policies and programs may have to be developed to safeguard the farmer cooperatives in some cases. Professionalism, record keeping, communication with the public, and product quality are important ingredients for successful marketing. Cooperatives should build their own identity for better competition in the open market environment.

Science and technology are an integral part of agricultural commercialization, and agro-industrialization. Governments should be able to provide scientific knowledge and technology generated through both the basic and applied research to the farming communities for a successful cooperative movement. High yielding varieties, productive livestock, sufficient fertilizer and pesticide inputs, sustainable production techniques, expanded irrigation, and agricultural mechanization is a pre-requisite for sustainable commercialized agriculture. Biotechnology is being used worldwide to increase productivity. New technologies for food processing, storage, and packaging should be developed. Genetic improvement on livestock, fish, and local cultivars is essential. Farmer cooperatives may fail in the absence of scientific knowledge and the availability of appropriate technologies for agricultural production, processing, and the marketing of agricultural produce.

Although there are several agencies such as the Ministry of Agriculture and Cooperatives, the Department of Cooperatives, the Central Cooperative Training Center, the National Cooperative Development Board, the Nepal Central Consumer Cooperative Federation Ltd.,

Nepal Federation of Savings and Credit Central Cooperative Union Ltd., the National Cooperative Bank, Ltd., and Central Dairy Cooperative Association Limited, Nepal, there seems to be the lack of concrete, comprehensive, and coordinated programs with respect to cooperative education, research, and extension in Nepal. To lend full support to the cooperative movement, governmental agencies must be able to provide full research support for farmer cooperatives on various issues including agriculture and food, plants and plant products, biotechnology, business, natural resources conservation, engineering, animals, processing, pest management, cropping systems, and economics. Building partnerships, strategic planning, record keeping, accountability, and policy dialogues are other areas where appropriate venues at the central, regional, and local levels for farmer cooperatives must be ensured.

Scientific land policies are critical for the overall agricultural development of the country. In Nepal, immediate initiatives should be taken for scientific land reform and land policies formulation. Land reform policies should be formulated considering the economies of scale, land productivity, land use types, and geography. Special attention should be given to the implementation of land reform policies. A farmer cooperative will not be successful without having land rights.

Appropriate governmental policies and programs, rules and regulations, credit availability, insurance policies, and governmental support systems should be in place for a successful farmer cooperative movement.

Workforce shortages in agriculture is emerging as a major problem in Nepal. The workforce shortage is due primarily to migration, traditional hand-tool type agricultural practices which the youth hate, an aging work force, lack of rural infrastructure, and low income from agriculture. Farmer cooperatives may end up with an insufficient work force, especially in the production areas, if not planned properly.

Establishing an efficient communication system among members is another major challenge for farmer cooperatives. Each member should be clear on the value of the cooperative. Through cooperative purchasing, members will save a great deal of money on farm inputs such as seed, fertilizers, and pesticides. Having good leadership is also extremely important for the success of a farmer cooperative.

Summary

Past initiatives for the cooperative movement in Nepal have not shown much impact on the overall food self-sufficiency, agricultural commercialization, and socio-economic transformation of the nation. Lack of full governmental support, lack of clarity about the mission and lack of vision on the part of government with respect to the cooperative movement in Nepal, lack of appropriate research, education, and extension about the cooperative movement, lack of appropriate policies, programs and the institutional set up to

support cooperatives, and the lack of sound planning, implementation, and evaluation of the cooperative program appear to be the major factors responsible for the failure of the cooperative movement in Nepal. Unscientific land policies, land fragmentation, traditional agricultural practices, poor governmental systems, lack of infrastructure, and poor institutional capacity are the other factors contributing to the stagnated and poor agricultural growth in Nepal. A scientific farmer cooperative movement that empowers farmers, commercializes agriculture, enhances food security, transforms socio-economic conditions, and contributes to rural development in Nepal is necessary. A renewed and revitalized cooperative movement should be all inclusive, fully managed at the grassroots level, and must have strong governmental support in terms of cooperative formation and safeguarding. Appropriate educational, research, and extension support programs are essential for a successful cooperative movement. Farmers' income and quality of life must be the yardstick of success of the cooperative movement in Nepal.

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