

## **Marketing System of Agricultural Cooperatives in Nepal : A Case Studies of Janagarathi Vegetable and Fruit Producer Agriculture, Cooperative**

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### **ABSTRACT**

The main objective of the study was to find out the marketing system of Agriculture cooperatives in Nepal. This study concentrates to the Janagarathi vegetable and fruit producer agriculture cooperative (JVFPACL) of Vandara Village Development Committee (VDC) of Chitwan District, Nepal. The study is based on primary and secondary data information collected during the field survey adopting questionnaire, interview and observation of the study area. The study has found that, the cooperatives play the role of mediator between traders and farmers with higher bargaining power than individual farmers. They are also beneficial in reducing marketing costs by reducing transportation cost and commission costs. Co-operative marketing also shortens the marketing channel. This study showed that 80% farmers of the study area sell their produce through cooperatives. JVFPACL, farmers who were affiliated with the cooperative market channel they were sales their produce on high price than other market channels by Rs 16.40 /Kg. Similarly marketing cost reduced due to zero transportation cost and less commission cost. A total of 27,213 mt of vegetables was produced in year 2012/013 in JVFPACL. The annual income from vegetable sale in JVFPACL has been estimated around NPRs 33.58 million for 2012/013.

Key words: Cooperative, Marketing, vegetables, production

### **1. INTRODUCTION**

Economically, Nepal is an agrarian country. It is located on the two big countries India and China having 147,181 sq. km in area. According to the census 2011, 85.5 percent of the people live in rural area. The majority of the people (65.2%) depend on agriculture for their livelihood (MOA, 2013) the pressure of population on agriculture is high. Among total population 69.4% has below 1 hectare of landholders (Nepal population and Environment, facts and figure, 2012). This shows

that Nepali farmers fall in the category of small and marginal farmers. The population is growing at the rate of 1.4% but the food production is not keeping pace with the increase in population. In the country, 25.16% of the people are below the poverty line (CBS, 2012).

Cooperative sector of Nepal has already completed its fifty –five years of services .The movement actually began in Nepal with the establishment of 13 credit cooperatives in Raptidun Valley in 1956 with USAID support.Before this, a separate department called cooperative development was also set up within the Ministry of planning ,Development and Agriculture in 1953.The cooperative Act,1959 provided first legal frameworks for the promotion of cooperatives.Furthermore ,cooperative bank was established in 1963 which latter merged with Agricultural Development Bank (ADBN) in 1967.The first cooperative societies Act was revised several times and it was replaced by the saja societies Act in 1984.After the restoration of multiparty democracy (1991) the saja Societies Act was replaced again by the cooperative act 1992 and the cooperative Rules 1993. The National Cooperative Development Board (NCDB) was formed with the dissolution of the then sajha central Office in 1991. Cooperative Sectors is growing very fast and at present there are 29,526 cooperatives upto mid February ,2014 operating throughout the country. Out of this 7095 (24.03%) were Agriculture Cooperatives having more than 587,251 members (NCF,2013).

Success of agricultural development programs depends largely on the type and capacity of the organizations functioning in the agriculture sector. The cooperative system appears to be the best alternative strategy to involve people in the development process. One such institutional arrangement in Nepal is village level cooperative, which has been serving as an effective means to augment socio-economic condition of the weaker sections of the community. A tentative sketch of poverty in the country can be felt that 81 percent of the economically active population are engaged in agriculture, 70 percent farm families hold less than 1 hectare of land, average land productivity (cereals) is less than 2 ton per hectare and disguised employment is 40 percent. The size of rural household varies from 4.5 person incase of landless class to 11 incase of large land holdings class, the average being 5.6, two third of rural population being to the working age group of 10-59 years (Pokhrel, 2004).

Cooperation has enormous scope in a country like Nepal where weak economic units predominate. Small units in agricultural business, vast numbers of small industrial enterprises, artisans, laborers and consumer units cannot derive many of the economies of large scale operations. But this shortcoming could be overcome if these small units join together to work in the form of cooperation.

Regional disparities in development are a serious problem. Removal of such regional disparities is the cardinal objective of economic planning in Nepal and cooperative organization is an effective tool for achieving this goal.

Cooperative can be a key organization in the promotion of sustainable agriculture and rural development. These objectives can be achieved through enhancing people's participation, promoting market oriented production systems, increasing the bargaining power of the farmers, supplementing the existing service delivery system, providing credit and mobilize savings, facilitating the implementation of the government programs.

The concept of "agricultural cooperatives" refers to the conventional classification of cooperatives (Helm, 1968). It is an association of farmers and other rural households who have voluntarily joined together to fulfill a common socio-economic objective (basically raising income) by undertaking suitable business activities, making contribution to the capital required and accepting fair share of the risks and benefits of the business according to the principles of cooperation as reformulated by ICA. They can operate and expand their business and service activities through the process of networking as primary, secondary or tertiary cooperative. Village level primary agricultural cooperatives need to act effectively in adjusting their size and scope of activity in accordance with the demands of the members to meet their complex requirements of planning, production and off-farm activities.

In Nepal, the average land holding size is continuously decreasing. The average parcel size is about 0.24 ha and the cropping intensity is 1.83 (CBS, 2001/02). Such trends clearly indicate that it is necessary to transfer substantial agro practice to market oriented one and it can be done through group approach or cooperative approaches. The tenth plan emphasized market management and operation cooperative, private sector and women's participation (NPC, 2002). National Agricultural policy 2004 emphasized the promotion of cooperative based agriculture industry and business.

Vegetable farming is become a good source of income of many farmers all over the Nepal. Problems of inefficient marketing can be solved by the promotion of the cooperative marketing and by regulating the market. Cooperative marketing is emerging as an efficient marketing system in Nepal now a days. Cooperatives help its members to raise their socio-economic status by reducing number of intermediaries providing appropriate value of their produce (Thakuri, 1999). Cooperatives are involved in value addition through processing, helping the farming community indirectly by stabilizing the market place, and developing the new markets or creating new consumption by supplying newly developed processed items. In addition, it protects local farmers and consumers by checking and interfering in the business carried out by large private companies, who try to maximize their benefits in domestic markets by unfair market control. It strengthens the bargaining power of member farmers as they are not compelled to sell over-produced volume at dumping level prices when cooperatives have the capacity to absorb this excess volume. It provides complementary banking services and other marketing activities.

This study tried to put light on how efficient is the cooperative marketing in the commercialization of agriculture. For this and intensive study on the vegetable marketing through cooperative in the Chitwan district of Nepal was carried out.

## 2. OBJECTIVES

The main objective of the study was to find out the marketing system of Agriculture cooperatives in Nepal. The specific objectives were: to identify the average sales price, marketing cost and marketing channel of vegetables sales through cooperative in Nepal.

## 3. SOURCES OF DATA

Basically, this study depends upon the primary and secondary data collected from the field study. Structured questionnaire, field observation, personal interviews were the tools used for this purpose. Beside this some other useful data are collected from the relevant secondary sources from related area.

## 4. BACKGROUND OF THE STUDY AREA

The study area is located at 165 km west-south of capital city Kathmandu. Chitwan district is located at the central part of country. It is a heart of the country. Headquarter of Chitwan district is Bharatpur. Due to enriched soil fertility and flat cultivatable land, Chitwan is very popular for Mustard/Tori (*Brassica campestris*) and Paddy/Rice (*Oryza sativa*) all over the country.

The major production areas of vegetables in Chitwan valley are Chainpur, Khairahani, Bhandara, Birendranagar, Ratnanagar, Mangalpur, Gunjanagar, Sukranagar, Jagatpur VDCs. Among them, Vandara VDC is one of the highly potential commercial vegetable growing areas in the district; this is promoting the growth of this area. Geographically, the district has been expanded from 27° 21' to 27° 46' north latitude and 83° 35' to 84° 48' east longitude. The district is politically divided into 36 VDCs and 2 municipalities. Based on population density, it is divided into 5 constituencies and 16 *illaka* (units). The total area covered by the district is 2218 square kilometer. Agro-climatically, the district is diversified spreading over 305 to 1945 metre above mean sea level (msl). So, all types of climate are prevalent in Chitwan. The annual rainfall in Chitwan district was recorded as 2338.5 mm in the period of June 2005 to June 2012. The temperature in Chitwan district varies between maximum of 35.08°C at May 2012 and minimum 8.04°C at January 2012 (DADO 2012).

Chitwan district has total land area 221800 ha, of which, 17.62 percent is cultivated land, forest area is 53.50 percent, fallow land 16.68 percent, grazing area is 7.09 percent and other area is 5.11 percent (DADO 2006). Most of the winter vegetables are grown in the upland (*bari* land) using the ground water irrigation. 83703 ton of vegetable produced in 2011/012 in Chitwan district which covered 6200 hector.

Chitwan district is typically represented by its diverse agro-climatic variation. So the cropping system adopted is also very diverse according to its physio-climate (Piya 2001). The farming system is influenced by various factors like climate, income status, cultural differences, and so many other economic and non-economic factors. In Chitwan valley, the type of land, availability of irrigation facilities, seeds and the market play important roles in making decisions on crop selection. Paddy, Maize, and Wheat as cereals and Mustard, Sesame, Potato, Vegetables as cash crops are the mainly grown in Chitwan valley. Among vegetables Cauliflower, Cabbage, Brinjal, Cucurbits, Tomato, Okra, Capsicum and Radish are mostly grown.

The study area is located 16 km far from district headquarter, Bharatpur, at east of Chitwan district. The study focused to identify the situations to explore the co-operative marketing implementation in rural areas in Chitwan district. Therefore, JVFPACL (Janagarathi vegetable and fruit producer agriculture cooperative) and Vandara VDC were selected for the case study of this research because of the fact that:

1. The area has more productive agricultural lands, and most of the families engaged in vegetable farming. This area was developed in pocket package programme of DADO, so it is more potential for commercial vegetable farming as well.
2. JVFPACL is an innovative co-operative in Chitwan district for co-operative marketing.
3. Collection centre is nearby east-west highway.

## 5. RESULT AND DISCUSSION

### 5.1 Cooperative Marketing

“In fact, cooperative marketing may be considered as a process of marketing of produce by a marketing society formed of the producers themselves, its purpose is to enable the growers to market their produce at better prices, followed by the intention of securing better marketing services and ultimately contributing to improvement in the standard of living of members” (Kamat, 1979).

Marketing cooperatives are organized upon the concept of returning earnings from activities related to marketing of farm products to the farmer-members on the basis of business done with or through the cooperative, as opposed to returning profit to outside investors on the basis of investment. Most farmers-owned marketing cooperatives are typically involved in the first stage of marketing activities at the farm gate on the behalf of their members. Some cooperatives go one or more steps further into the food processing of manufacturing stage, i.e., vertically integrate forward, attempting to capture the margins of high value-added activities. Economic literature suggests that such action by farmer cooperatives would be beneficial to producers, farmers and consumers (Royer and Bhuyan, 1995).

## 5.2 Co-operative marketing in Nepal

Co-operative has implemented a number of programs that have successfully established collection centers for vegetable marketing. During the first phase of the first phase of the project (during 1992-1994), the vegetable area per household increased from 0.11 ha to 0.30 ha. Likewise, annual income from vegetables increased from Rs.2480/ha at pre-project time to Rs.19,150 at the end of the project year (CEAPRED, 2005). Lerman (2004) found cooperatives and cooperative marketing were necessary for commercialization along with increased farm size, rural credit and extension services. According to Sindhwa co-operative, the living standard of local farmers has drastically improved after the establishment of this co-operative (ANZEDC, 2003).

## 5.3 Marketing Cost

The vegetable produced in the study areas ultimately reached to the consumer through these intermediaries in different ways. Based on this, three and four types of marketing channels were found operating in these study area.

Generally, price fixing activities were done by traders and the producers were the only price takers. But, involvement of the cooperative in the supply chain increased the bargaining power of the farmers. The co-operatives play the role of mediator between traders and farmers with higher bargaining power than individual farmers. They are also beneficial in reducing marketing costs by reducing transportation cost and commission costs as shown in the table. Marketing costs for different vegetables through co-operative or private marketing in Chitwan is given in table I.

**Table I. Marketing cost of the produce shared by the farmers (2012)**

Respondent category	Transportation cost	Loading and unloading cost	Commission fee
Members through cooperative	×	NRs 4/ctl	Only 1 percent to coop
Non member through cooperative	×	NRs 4/ctl	Only 2 percent to coop
Non members or members not through cooperative	√	√	7 percent to traders

Co-operative marketing also shortens the marketing channel (Producer-Co-operative-Wholesalers/Middleman-Retailer-Consumer). Similarly marketing cost reduced due to zero transportation cost and less commission cost. Producers' share and market margin are the marketing efficiency indicators. Market margin was found less while marketing was done through co-operative (6.58 Rs/kg) than that of self marketing (8.19Rs/kg) in the case of all the major vegetables cultivated in Chitwan district. Producers share was found higher when marketing was done through co-operative (66.66 percent) than that of self marketing (58.82 percent) (Joshi priyambada., 2009). Similar findings were found in earlier research work

too. Increase marketing cost brought inefficiency in marketing (Haque et.al.,1996). The most effective vegetable marketing channel was through cooperative.

The establishment of Janajagriti Vegetable and Fruits Product Agriculture Cooperative Limited (JVFPACL), Bhandara-1 in 2000, started another complex vegetable marketing channel (Producer – Cooperative –Wholesalers/Middleman – Retailers – Consumer). Farmer of this study area came under the JVFPACL's umbrella and started to sell their produce through the cooperative. This study showed that 80% farmers of the study area sell their produce through cooperatives. Chitwan is one of the leading districts in the nation for vegetable production and total of 83,703 metric tons of vegetables was produced from 6,200 hectares in the year 2010-11 (DADO, Chitwan, 2011 -12).

JVFPACL, farmers who were affiliated with the cooperative market channel they were sales their produce on high price than other market channels by Rs 16.40 /Kg.

**Table II. Vegetable average sales rate of Chitwan district.**

Farmer's market chain	Average Sales rate of Chitwan(Nrs)
1. Direct sales	15.02
2. Retail sales	11.76
3. Wholesales	15.33
4. Cooperative	16.40

*Field survey, 2013*

**Table III. Cost of marketing of different vegetables paid by the farmers through JVFPACL and private**

Cost of marketing of different vegetables paid by farmers(2013)						
Commodity	Marketing Channel	Transportation cost(Rs./qtl.	Loading cost(Rs./qtl.)	Unloading cost(Rs./qtl.)	Commission fee(Rs/Qtl.)	Total (Rs./qtl)
Cauliflower	JVFPACL	0	4	4	12	20
	Private	55	8.33	8.33	84	155.66
Cabbage	JVFPACL	0	4	4	10	18
	Private	45	8.5	8.5	70	132
Tomato	JVFPACL	0	4	4	15	23
	Private	71	15	15	105	206
Radish	JVFPACL	0	4	4	5	13
	Private	34	7	7	35	83

Brinjal	JVFPACL	0	4	4	11	19
	Private	56	10	10	77	153
French Bean	JVFPACL	0	4	4	18	26
	Private	50	8.33	8.33	126	192.66
Green Pea	JVFPACL	0	4	4	21	29
	Private	51	10	10	147	218

*Source : field survey 2013*

#### 5.4 Cooperative Marketing system in JVFPACL

In vegetable marketing, different types of marketing intermediaries were involved. Major intermediaries involved were cooperative, farmers' group, collector, commission agent, wholesaler and retailer. Co-operative vegetable marketing is one of the major activities of the JVFPACL. JVFPACL has its own collection centre, which is nearby east west highway. The co-operative has own one shed and a small room which is being used as an office. One manager is already serving in the co-operative and 2-3 assistants will be hired at the pick period of transaction, especially in winter season. According to the manager Mr. Bhavanath Tripathi, during the previous year the quantity of vegetables collected was 1 to 50 tons per day, however this is generally dependant upon the season. During dry period and rainy seasons, average transaction was 1 ton per day while about 50 tons in winter season. Generally most farmers grow vegetables in largescale during the winter season (DADO 2006).

The collection of vegetables starts from 12 noon to 6 pm every day and sometimes 8 pm, if the transaction is high. Farmers can deliver vegetables to the co-operative irrespective of whether they are members of the co-operative or not but charges are different. Traders pay fixed prices for vegetables, these prices are noted down in the notice board of the co-operative, and sometimes EC and/or manager fix the minimum price of vegetables in consultation with traders.

Traders are mainly from the Narayangarh, Pokhara and Kathmandu who know the price of the vegetables in the regional and central market. The co-operative's EC, manager and most of the knowledgeable members are getting market information through different sources like telephone, friends who went to the regional market earlier and they also get information from radio and television broadcasting. Sometimes the knowledgeable members go directly to the EC and the manager to oppose the latest market information.

Farmers collect and weigh their vegetables in the co-operative and manager gives a token to farmers. The date, name of farmers, vegetables delivered and volume of vegetables are written in the token. Traders give the total money to the manager and after sometimes the manager will give the money to the farmers after deducting the service charge. The service charge amounts to 1 percent for co-operative members

and 2 percent for non-members. I inquired about the service charge of vegetable to the manager and he clarified: This is the written law of our co-operative. Whoever is a member can get every benefit from the co-operative but those who are not members of the co-operative can only get this marketing facility with extra 1 percent service charge than members". Asked why this discrimination, he added; "co-operative is member centered, member-controlled and member-benefit, so that members should get more facility. Members paid an entrance fee and each member buys 5 shares. Due to the member of the co-operative they get more facilities like training, excursion, irrigation system, income generating programs, co-operative marketing, but non-members are getting marketing facility by paying extra one percent service charges.

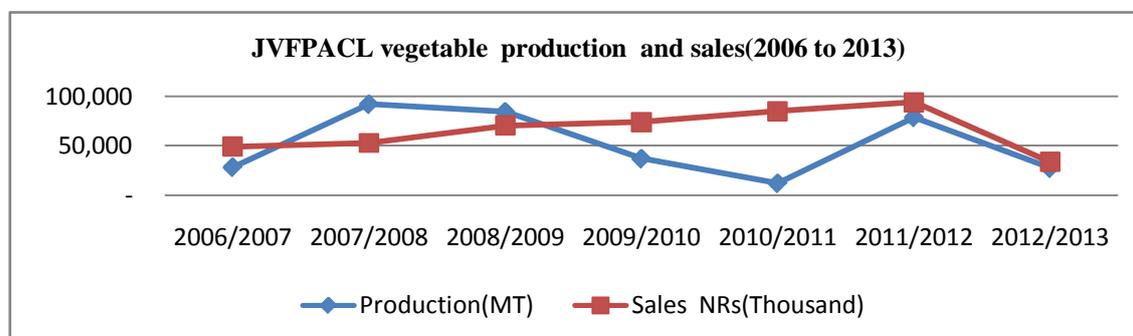
The process of marketing starts with the traders buying fresh vegetables from the farmers. The traders then sell the vegetables either in Pokhara or to the wholesalers in Kathmandu where they can get more margins. Then, the wholesalers sell to the retailers, who then sell the products to the consumers. This is an example of a short marketing channel. In the case of regional market (Narayangarh), the middlemen collect/buy vegetables from the producers and sell them to the wholesalers in the region and sometimes to the next party. Then wholesalers of Narayangarh market, then sell to the wholesalers of Pokhara and/or Kathmandu, from where the goods are passed down to the retailers and then to the consumers. This is a longer marketing channel as compared to the co-operative marketing system. According to the marketing policy, if marketing channel is long, then consumers have to pay more and producers get lower per unit price and vice-versa.

### 5.6 Vegetable Production in JVFPACL

The total production of fresh vegetable in JVFPACL is 27213 mt.in 2013.The major vegetables of the research area are rayo, radish, cauliflower, cabbage,pea, tomato, sponge ground, bean, cucumber, bottle gourd, pumpkin, cowpea ,bitter gourd, brinjal, okra, snake gourd, broccoli, sweet pepper, carrot, cress, spinach, summer squash. The trend of vegetable production and sales amount are given in the table and figure respectively.

**Table IV Vegetable production and sales from JVFPACL**

Year	Production(MT)	Sales NRs(Thousand)
2006/2007	28,249	49,227
2007/2008	92,152	52,814
2008/2009	84,462	70,514
2009/2010	36,895	74,003
2010/2011	11,890	84,965
2011/2012	78,839	94,180
2012/2013	27,213	33,582

**Figure I JVFPACL Vegetables production and sales**

Source :Annual report (JVFPACL)

A total of 83703 mt of vegetables was produced from 6200 ha in year 2012/013 in chitwan district. The annual income from vegetable sale in Chitwan district has been estimated around NPRs 1.20 billion for 2011/012 (DADO annual report 2012 pp 106).

## 6. Conclusion

Based on the findings of the study concluded in the cooperative marketing of vegetable of JVFPACL, following conclusion are drawn.

Cooperative play important role in equal distribution among the farmers as income disparity. Farmers are dedicated to vegetable production with utilizing large proportion of their land under vegetable cultivation. Higher producer share in the case of cooperative involved marketing. Farmers, in marketing cost in the case of private marketing indicates the efficiency of cooperative involved marketing channel. A member of the cooperative or the member of the other social groups know more about the benefits of joining cooperative and more involved in selling through cooperative channels. Although directly or indirectly cooperatives greatly facilitate in the market of the vegetable in chitwan district by facilitating in getting fair prices, inputs and training but they seem fail to consume a large amount of the produce. Because of this reason, small-scale farmers are more likely to market their vegetable through cooperative channels.

From the study it can be concluded that vegetable marketing cooperatives can be integrated in supply chain of vegetable to improve farmer's income.

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