

The Co-operative Model

Success engine for agricultural commodities

Co-operatives are the best mechanism to address market and supply chain failures in agricultural commodities. The formation of cooperatives has to be with the full involvement of members. The operations emanate out of detailed supply chain analysis and need analysis using PRA, engagement and training of community members on cooperation principles so that it is internalized and ingrained within the members.

Genesis of Agriculture Cooperation

Agriculture co-operation has been in practiced since the Babylonian civilization. However its present form owes its genesis to the industrial revolution in Britain in the 19th century.

The co-operatives were formed to take advantages of economies of scale against exploitation by middlemen and traders and share the benefits "equitably" among the members. Consequently, cooperatives are always found to be engaged in economic activities promoting increase in income and thereby enhancing living standards.

All agriculture cooperatives are formed around a common "commodity" or "group of similar commodities" e.g. thrift cooperatives around savings and credit (Asia & Africa), dairy co-operatives around milk (India), oilseeds co-operatives around oilseeds (India), coffee growers cooperatives around coffee (Ethiopia) etc.

The principle of formation and management of cooperatives, as the term itself refers, is the promotion of cooperation among members for common good, equitable ownership of the enterprise thus formed and profit distribution in share of the patronage by members.

The Need for Formation of Agricultural Co-operatives

Analysis of cooperative formation points out two major reasons for the formation of agricultural co-operatives —**1) solve market failures and 2) to address distortions in the supply chain.** Market failures have mainly been in the form of exploitation of individual farmers or producers largely by market intermediaries resulting in remunerative prices not reaching the individual producers. Distortions in supply chain are mainly through market intermediaries who get into a win-win situation for themselves both from the supply of raw material or agricultural inputs to the disposal of the produce. Global studies on agricultural produce markets have revealed that supply



Coffee Growers Co-operative in Ethiopia

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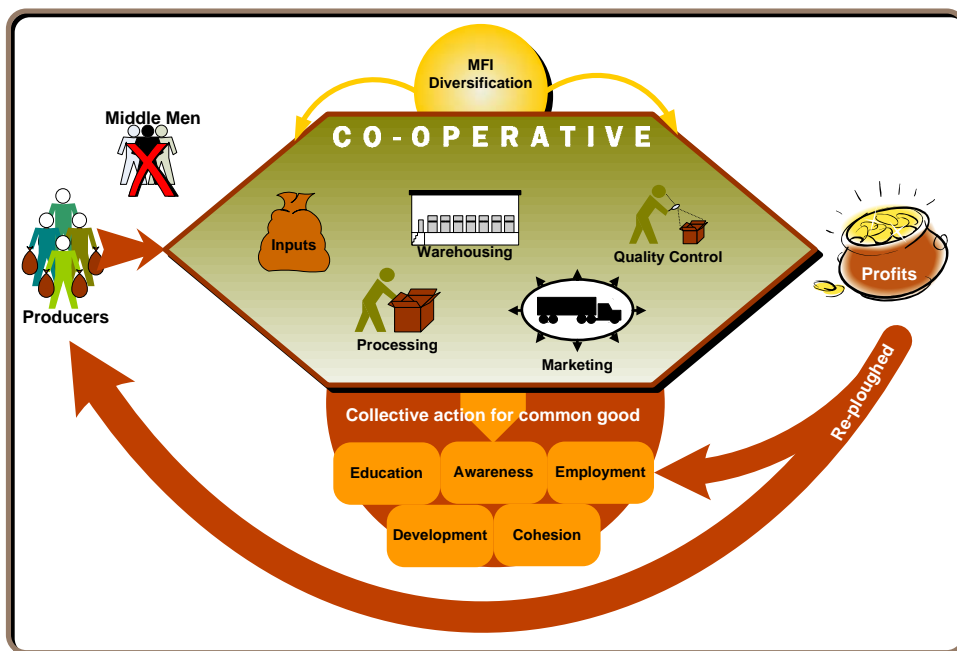
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chain inefficiencies contribute to as much as 30-50% loss of revenue to the producer.

Thus individual producers—typically small and medium farmers who do not have a great deal of negotiation powers due to 1) quantum and value of the assets they have, 2) carrying capacity—both financial and infrastructural, 3) volume of operations; 4) lack of market information and 5) lack of access to formal financing mechanism in absence of collaterals (Based on NiMble’s study of Oxfam sponsored supply chain research in fisheries in Orissa, India as well as documented studies on Amul and other examples). This relationship also prevents the individual farmers in seeking alternative market mechanisms because loans against no collaterals also means advance mortgaging their produce to the market intermediaries who discount procurement prices and sale at market prices making high profits.

The Cooperative Framework



Benefits of Organizing into Cooperatives

As mentioned earlier, since the co-operatives are formed around a commodity or group of similar commodities, it enables the members to pool their resources and thus take advantages of economy of scale.

The economy of scale provides benefits at all level of supply chain starting form the procurement of raw material or agricultural inputs to economical warehousing facilities; to leveraging of transportation costs, processing and finally marketing eliminating intermediaries.

Lack of access to formal financing mechanism found to be one of the major limiting factors to agriculturist leading to exploitation by market intermediaries.

Cooperatives provide economies of scale to influence and intervene in the supply chain of agricultural commodities for better remuneration and thereby wealth creation

Supply Chain inefficiencies in agricultural produce contribute to as much as 30-35% loss of revenue to producers (McKinsey Study)

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The other benefits are social in nature as experiences have shown that the cooperative model allow for employment of local youth. Creation of social cohesion, creation/up gradation of societal infrastructure (mainly education and health awareness, creation of employment opportunities, updated market information, quality consciousness, education on power of collective action, common goods etc.). Cooperatives also enable their members to leverage finance at softer interest rates and attract international development agencies to even provide grants for societal infrastructure up gradation and investment in other livelihood opportunities.

Analysis of Success Factors:**The AMUL Example**

Amul is the result of milk producers federating into cooperative structure to take advantage of economy of scale in the entire supply chain of milk and milk products.

The interventions made by Amul were at all levels of supply chain starting from the producers and culminating in marketing activities. At the producer level interventions were made in terms of raising milk production, providing nutrient balanced cattle feed and upgrading the animal breed. At the procurement level, transportation models were used to develop logistical solutions which included setting of regional collection centers with rudimentary processing to enhanced shelf life of milk, and transport route which would ferry the milk within short times to the processing centers. At the processing level, processing methods were put in place to process milk in order to enhance shelf life and make various products. The marketing function was developed to initially cater to the local and regional markets and was later expanded country wide.

The benefits accrued at both economic and social levels. On the economic front, the producers were able to get the best prices for their produce. On the social side it helped create jobs for unemployed people in the community, upgraded the village infrastructure by helping repair and build schools, roads, potable water, awareness building on health and sanitation issue among others and removing social disparities by fostering a feeling of cooperation.

Ethiopian Coffee Co-operatives

Ethiopian coffee cooperatives were formed again on similar lines with an aim to elimination exploitation by market intermediaries.

The intervention made were again based on study of supply chain analysis and market mechanism. At the producers level, intervention were in form of education on cooperation principles and awareness building, provision of better quality inputs like seeds and fertilizers and scientific farming practices, at the procurement levels were the establishment of warehouses based on economically viable logistic models and at the marketing level tie ups with international buyers eliminating middlemen and thereby lower transaction cost an better prices.

The benefits like above have been both social and economical—higher prices resulted in higher living standards, thrust on education by exposure to scientific farming practices and creation of need for education coupled with jobs for unemployed youths in procurement, grading, transportation etc.

Co-operatives can leverage soft loans as well as grants from development agencies to build up various interventions .

Control over supply chain with industry best practices makes Amul the market leader in dairy products in India.

Amul has created social cohesion, employment opportunities, societal infrastructure, milch animal rearing practices, hygiene and sanitation awareness through safe milk concepts etc.

Ethiopian coffee cooperatives were formed using PRA and needs assessment tools to understand both social and economic issues.

Supply chain analysis conducted to understand the points where intervention would yield best return for farmers in the start of cooperative operations.

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The analysis of factors enabling the success of cooperatives point to two major reasons for their success.

1. Interventions and investment along the supply chain; and
2. Investment in the societal infrastructure.

Supply Chain Interventions:

Analysis of success factors in agricultural cooperatives reveal the inefficiencies in supply chain as the major obstacle for people to realize fair remunerative prices. Agricultural commodities by their very nature are dependent on supply chain efficiency. Thus interventions were made along the supply chain in all cases. Success has been dependent on the identification of the priority intervention at the level of the supply chain which makes the significant difference followed by other intervention to make best use of limited resources.

The second factor for success has been the tie up of the supply chain functions to leverage cooperative advantage e.g. micro finance, finance, raw material procurement, production and processing technology, quality awareness, and market linkages.

Thirdly, the success achieved was in building the capacity of members on farming practices and relevant agricultural practices which not only boosted yields but also created better crop management practices.

Societal Investments:

All the investments (even economic) made by cooperatives are undertaken after taking into consideration societal mores and practices especially the ones that help strengthen the societal fabric. Consequently, the creation of schools, hospitals, health centers and employment opportunities contribute to the wealth generation in different forms for the society at large.

Conclusions:

The cooperative development assignments (see examples in shaded box on page 3) that the NiMble team has been associated with renders us to emphatically state that cooperatives are the best mechanism to address market and supply chain failures in agricultural commodities.

The only caveat being that the formation of cooperatives has to be with the full involvement of members. The operations emanate out of detailed supply chain analysis and need analysis using PRA, engagement and training of community members on cooperation principles so that it is internalized and ingrained within the members. Additionally, relevant tie ups and use of business principles to run and manage cooperatives professionally are important factors of success.

Success Factors of Cooperatives :

- **Supply chain research for identifying interventions to best use of limited resources**
- **Tie up with various agencies performing different roles in the supply chain leveraging economy of scale**
- **Capacity building of members of cooperation principles—self interest yielding place to collective good**
- **Investment made to strengthen societal fabric and creation of wealth—both tangible and intangible.**

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The NiMble team :

NiMble draws its expertise from a team of professionals who have experience in customizing economic intervention solutions with an in-depth understanding of the impact on the societal fabric. It captures the team members' experience of working with commodity trade operations, understanding of cooperation principles, formation and management of large cooperatives, involvement in PRAs and supply chain studies of agricultural commodities, understanding of the socio-economic aspects of village based cooperative interventions, and industry best practices benchmarking. Above all, NiMble understands and thereby all work is facilitated with empathy.

The team members:

Ranjan Sinha (Director and Social Head)

RS is an agriculture graduate with an MBA in Rural Management. He has a varied experience in planning and managing the operations of a dairy co-operative (Amul), conducting supply chain studies for agricultural commodities such as wheat, salt, tomatoes and fishery, among many others. He has also been actively involved in trade of edible oil through monetization programmes, designing and implementing food and livelihood security programs and is an expert in undertaking PRAs. He has has a long association with agencies such as Amul and CARE.

Arun Goswami (Director)

AG is an agriculture graduate with an MBA in Rural Management. His experience lies in commodity trade, having dealt in international commodity trade of products such as rice, sugar, timber and cocoa. AG is an expert in underrating the undertone of commodity market mechanism and supply chain. He has worked with international commodity trading company such as Olam International, Comagri Inc and Metafrigue Inc. Large part of his commodity trade experience is in Africa.

Kailash Vyas (Board Advisor)

KV is and agriculture graduate with an MS in food technology. KV has been the longest serving managing director of Amul - the largest dairy cooperative in India. His expertise lies in forming professional teams and identification of niche products and markets. He has also orked with National Dairy Development Board (NDDDB) and Amul among various other organizations at senior positions.

NiMble brings with it experience and tools for combining economic interventions and solutions along with social development and socio-economic understanding of economic interventions.

RS has expertise in PRA, supply chain studies of agricultural commodities and co-operative management. of the article.

AG is an internationally known commodity trader with substantial expertise of commodity trade in Africa..

KV is an expert in managing large cooperatives and introduction of quality systems and setting industry best practices.

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MK Sinha (Board Advisor)

MKS is a dairy technologist by training and his expertise lies in mobilizing communities and forming of cooperatives. He was the spearhead team leader for forming dairy co-operatives under the Operation Flood program in India where he assisted in the creation of over 5,000 primary cooperative societies. He has also served as the advisor to former president of Uganda and Kenya in forming their vision of dairy cooperatives in these two countries.

N M Prusty (Board Advisor)

NMP is an engineer by training with a Masters degree in International Trade. NMP is associated with the design and formation of cooperatives under the Operation Golden Flow In India. He has worked internationally in commodity trade dealing in edible oils and minerals. NMP is an expert in supply chain management and creation of livelihood based disaster mitigation mechanisms. He has worked with banks, NDDDB, Chanrai Group in Africa, CARE among many other institutions

MKS is cooperative formation expert & deep knowledge of cooperation principles.

NMP is a commodity and supply chain and community based livelihood solutions and food security expert.

NiMble is a management consulting organization assisting and supporting organizations to understand their needs and sustain growth through improved processes and sound management practices.