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NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

Study to Identify the Gap in Institutional Funding in Agro-processing Cooperative Sector in India: Overview and Policy Implications

Sponsored by

National Cooperative Development Corporation (NCDC), Under Ministry of Agriculture and Cooperation, Government of India

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Published by
Anil K. Sharma
Secretary and Head of Operations and Senior Fellow, NCAER
The National Council of Applied Economic Research
Parisila Bhawan, 11, Indraprastha Estate
New Delhi–110 002
Tel: +91-11-2337-9861 to 3
Fax: +91-11-2307-0164
infor@ncaer.org
www.ncaer.org

Publications Coordinator
Jagbir Singh Punia

Study Team*

Project Leader

Saurabh Bandyopadhyay

Project Team

Tarujyoti Buragohain
Samir Kumar Mondal
Palash Baruah
YogeshTanwar
Pradip Kumar Biswas

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NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH
NCAER India Centre, 11 Indraprastha Estate New Delhi 110 002
Tel: +91 11 2337 0466, 2337 9861 Fax: +91 11 2337 0164
sshah@ncaer.org, www.ncaer.org

Shekhar Shah
Director-General

Foreword

Producer cooperatives in India have been seen traditionally as the third engine of growth after the public and private sectors. An autonomous association of persons working together to attain common economic, social and cultural goals, and enjoying some of the scale economies not normally available to small producers, has conceptually always been attractive to Indian policymakers. This is particularly so in agro-processing, in which cooperatives have combined production, processing, marketing and distribution, servicing and banking. We have looked to cooperatives, particularly in rural India, to alleviate poverty through debt reduction, lowering the cost of capital and increasing saving, enhancing productivity, ensuring the profitable marketing of members' produce and curtailing unproductive social expenditures. Over the years, rural agro-processing cooperatives have also become the platform for rolling out government schemes and initiatives, for example, the recent initiative to double farmers' incomes by 2022.

While there is little direct evidence of the extent of farmer links with cooperatives sector, we do know that about 96 per cent of villages are covered by Primary Agricultural Credit Societies, or PACS. These societies own some about 55,800 warehouses nationally. Cooperatives and government agencies purchase about 34 percent of all agricultural produce, local private traders about 30 per cent, mandis purchase about 16 per cent, food processors about 14 percent and input dealers and others about 6 per cent. The substantial post-harvest demand for funds from cooperatives and the mismatch with the availability of funds has aggravated the high cost of borrowing and has resulted in a falling share of funding for cooperatives.

Against this backdrop, the National Cooperative Development Corporation (NCDC) requested the National Council of Applied Economic Research (NCAER)

to examine possible gaps in institutional funding to NCDC that might reduce its effectiveness in supporting agro-processing cooperatives in India. The resulting NCAER study examines the issue of credit penetration, its impact on the performance of agro-processing cooperatives, and the role of the NCDC in facilitating cooperatives through its financial and logistical support.

This report was prepared by a team led by Dr Saurabh Bandyopadhyay and including Dr Tarujyoti Buragohain, Dr Palash Baruah, Mr Sameer Kumar Mondal, Mr Yogesh Kumar Tanwar and Dr Pradip Kumar Biswas. The team has benefited greatly from the guidance of senior NCDC staff at its headquarters and in its regional offices. Other stakeholders also provided useful insights on the functioning of cooperatives, for which the NCAER Team is most grateful.

New Delhi
April 18, 2018

Dr Shekhar Shah
Director-General
NCAER

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Executive Summary

The establishment in 1963 of the National Cooperative Development Corporation (NCDC), that replaced the erstwhile National Cooperative Warehousing and Development Board, gave a great boost to the growth of cooperative marketing and processing societies, which was its main agenda. Over time, with a small amount of budgetary support for its Central Schemes, NCDCs funding grew in magnitude and diversity.

With rising interest rates on its commercial borrowings, and withdrawal by RBI of NCDC eligibility to avail low cost funds from Banks under the Priority Sector Funding facility, NCDC Rates of Interest for its assistance to the cooperative sector have also been rising The huge demand of the sector for funds for post-harvest activities and the mismatch in terms of the availability of funds aggravated by high cost of borrowing, has resulted in a falling share of funding for cooperatives.

The present Study has emerged out of NCDC concerns to get a fair deal for the cooperative sector in the post-harvest economic arena. The Study is aimed at examining the case for NCDC to be supported in the Mission for which it was statutorily created.

The importance of cooperatives, particularly for enabling small producers to access the benefits of scale and value addition, needs to be understood in the background of the prevailing agricultural economic contexts, focussing on critical parameters such as agricultural production, parameters relating to farmer households, their landholding status.

Cooperatives are highly important in all stages of present-day socio-economic lives– from production to distribution to consumption. Yet the contribution of cooperatives is much lower in relation to what society actually needs. In India, agricultural products such as rice, wheat, other cereals, fruits, vegetables and other horticultural items are wasted in large quantities every year due to poor preservation, storage and transportation facilities. Cooperative storage facilities are found to be very helpful for poor farmers, facilitating not only preservation of goods but also preventing price crash due to distress selling by farmers.

Post-harvest value addition to the agricultural produce is quite low in India as compared to that in the advanced countries and many other developing nations. There are several reasons for the low post-harvest value addition in India, namely, non-availability of suitable technology, lack of entrepreneurship skills among the rural people or absence of market for high-value products. Producers' cooperatives can be a valuable solution to many of these problems as the less informed small producers can buy technology, machinery and inputs, and also market their products through cooperatives. Some of the manufacturing/processing cooperatives perform both manufacturing as well as marketing activities, and the members work on the shop floor of the cooperatives. Similarly, cooperatives of traders, service providers and transporters, among others, can help the small enterprises in accessing resources and preferred markets.

Agriculture is important for the overall development of Indian economy but growth of this sector has lagged behind the growth of all other sectors, namely, industry and services. Lack of adequate investment (Gross Capital Formation (GCF), as a per cent of GDP is as low as 2) compounded with lack of visionary policy framework for post-harvest operations has culminated in the comparatively lower growth of this sector. The recent data using CSOs newly introduced Gross Value Added (GVA) method too shows that agricultural growth lagged far behind the overall growth. It may be noted that in 2014-15, agricultural growth was just 0.2%, which is alarming and called for a review of the policy on agriculture and cooperation. Moreover, as per the recently released Fourth Advance Estimate of the Ministry of Agriculture, foodgrain production in 2014-15 declined by 4.66%.

The major stakeholders of agriculture and agri-business are the farmers. They are the epicentre of activities linking production to distribution of agricultural commodities. According to NSSO 70th round July 2012-June 2013, agricultural households in rural areas have declined from 60.4% of total households in 2003 to 57.8% in 2013. The total number of operational holdings in India increased from 106.6 million in 1990-91 to 137.8 million in 2010-11. There has been a continuous increase in the share of marginal holdings from 59.44% in 1990-91 to 67.04% in 2010-11. The share of medium holdings steadily declined from 7.11% to 4.25% and that of large holdings from 1.55% to just 0.73%. Out of all agricultural households, 2.6% are considered landless and about 32% almost landless.

The income of agricultural households is largely determined by the size of land possessed. For the small and marginal farmers, expenditure exceeded income. Semi-medium, medium and large farmers have sizeable positive monthly income as per the NSSO 70th round.

Rural agricultural households have various sources of income, such as income from livestock, income from non-farm activities, income from wages and salaries and income from cultivation. It is noted that, on an average, about 48% of income of agricultural households comes from cultivation. This implies that the share of income from other sources has been contributing significantly to the total income of agricultural households. It is also noted that, on an average, 52% of all agricultural households in India are indebted. The indebted households are the highest in Andhra Pradesh (92.9%) and the lowest in Assam (17.5%). At the all-India level, about 60% of outstanding loans are from institutions, which includes 2% from government 15% from cooperative societies, and 43% from various banks. Among non-institutional credit sources, 26% was found to have been sourced from from professional money lenders and 14% from local money lenders, relatives and friends. Cooperative lending at 15% of total lending is very low.

There is no direct evidence regarding the extent of farmer links with the cooperative sector. About 96% of villages are covered by the Primary Agricultural Credit Societies (PACS). The PACS own about 55,813 godowns across all states, and more than one-third of the agricultural produce of farmers is purchased by the cooperative sector. About 46% is sold to the local private traders and in mandi combined, 14% sold to food processors and 2% to others.

Local private traders purchase farmer produce at a low price during the harvest season and sell at a higher price during lean seasons. This practice at times

contributes significantly to food inflation. Intervention by the cooperative sector to divert the amount purchased by private traders by purchasing the same at Minimum Support Prices (MSP) or more (bypassing the traders), will benefit farmers by way of increasing their income. It will also help control food inflation. For this to be possible, the cooperative sector would need to increase storage capacity, which in turn requires government support in the form of interest subvention as the activities of cooperative storage fall under "priority sector".

It may be noted that about one-third of the agricultural produce is purchased by the procurement agency at MSP. India has a large programme of public food grain distribution implemented through a network of Fair Price Shops (FPS), both in rural and urban areas. With over 5 lakh FPS in operation, its reach in rural areas is deep and intensive. Despite the policy for issuing FPS licence to women's self-help groups, village panchayats, urban local bodies, self-help groups and cooperatives, the combined percentage of their presence in the FPS in India is merely 26.2%, the rest goes to private individual ownership. At the state level, the situation is far worse. Barring a few states like Chhattisgarh, Madhya Pradesh, Jharkhand (where women's self-help groups have an edge), Tamil Nadu, Karnataka, Bihar, Maharashtra and Gujarat, in all other states these groups have very low presence of in FPS operations. More importantly, cooperative presence in FPS operation in states such as Uttar Pradesh, Assam, West Bengal, Andhra Pradesh, Haryana and Kerala, collectively accounting for approximately half of India's population, is very low.

In this regard, cooperatives which have enormous potential, have not received due credence in the Public Distribution System (PDS) operations to plug the loopholes and leakages due to policy hurdles. The role that cooperatives can play in this activity is amply demonstrated by the PACS (1333 in numbers) in states like Chhattisgarh, which have played a crucial role in paddy procurement with MARKFED (the apex Cooperative Marketing Federation) as a sole agency instilling vitality in marketing the produce. However, post-harvest investment in other potential areas (for e.g. mill operations) unfortunately could not take off due to lack of sufficient capital.

To break the widely extant low capital and low productivity linkages, substantial investment of capital in the form of plant, machinery, tools and equipment is needed. Correspondingly organisational changes, such as improving marketing/procurement infrastructure would also be needed. In this respect, cooperatives could enable the producers to access cheaper and institutional sources of credit as well as capital equipment with improved production technology.

Value-addition is a crucial imperative for agriculture and India needs to redirect emphasis on post-harvest operations linked to procurement, storage, processing, grading and marketing. Despite the importance of post-harvest operations, financial credit largely flows to the pre-harvest operations, sidestepping the post-harvest need. In this context, decisive action is needed to revamp the post-harvest priorities through organizational changes, such as improving marketing/procurement infrastructure to enhance the value addition process in agriculture.

In this respect, National Cooperative Development Corporation (NCDC) as a specialised institution plays a vital role in augmenting the post-harvest value addition process through energizing cooperative capabilities through credit and indispensable support.

Cooperatives in India have been operating in areas such as credit, production, processing, marketing, input distribution, housing, dairying, textiles, procurement and retailing, have achieved success in the areas like dairying, banking, housing, sugar, handlooms and are to be found in most sectors of the Indian economy including the service sector. On an average, there is a cooperative society for every 404 households in India as of 2010.

Funding the agro-processing sector, particularly the cooperative agro-processing units, is a major issue of development. It has been noted that the share of cooperatives in financing this sector is declining since 2007-08 as compared to the share of the Scheduled Commercial Banks. The lower share of cooperative financing displays lower fund flow to the cooperative units, especially to the units involved in agro-processing and marketing, thereby adversely affecting their viability. High rates of interest are another factor responsible for low institutional credit to cooperatives for agriculture investment purposes.

The stringent monetary practices of the SCBs have serious implications for the productivity and growth of the sector, and more specifically for activities linked to marketing, processing, storage and distribution. It may be noted that National Bank for Agriculture and Rural Development (NABARD) an institution that is also involved in funding cooperatives provides crop loans mainly linked to pre-harvest activities, while NCDC is the only financial institution that exclusively caters to the cooperative sector for its post-harvest activities, i.e. processing of agricultural produce and allied sector activities, storage and marketing which are in dire need of invigoration and overhauling the mechanism.

While over time, the flow of credit to agriculture has increased significantly, it has also raised several concerns about the destination matrix of credit. It is important that the credit strategy should be aligned with agriculture growth strategy (both pre- and post-harvest operations), which in turn has to address broader macroeconomic concerns. GDP in agriculture is increasingly being contributed by sub-sectors such as horticulture, animal husbandry and fisheries, more than the pure crop segment. For enhanced productivity of credit, the financial sector must be harmonised with the real sector initiatives to ensure quality of inputs. This calls for a careful review of the practice of projecting credit requirements using simplistic assumptions about the relation between output and credit needs.

A major portion of agricultural commodities is being produced and marketed by the marginal and small-sized farmers. Because of the meagre output that they individually produce, these farmer sell the surplus in small quantities in the market (Table 3.1) that results in substantially raising their transaction costs per unit of quantity sold, rendering their prices uncompetitive and resulting in a weak bargaining power in the market.

While it is commendable that India has attained self-sufficiency in food grains production, it is equally disturbing that every year a huge amount of food stocks get wasted due to the archaic processes of procurement, and the poor and inadequate infrastructure for storage and warehousing. Storage losses of agricultural products deprive millions of poor in the country of food and the minimum dietary requirements. As estimated by CIPHET (2010), 14 million tonnes of cereals are

wasted every year. Annually, about 21 million tonnes of wheat alone is wasted, while the wastage of some fruits and vegetables is as high as 70%. The available estimates indicate that the monetary values of all wastage amounts to $8.5 billion every year, while the wastage of fruits and vegetables alone is estimated at $2.11 billion.

Food losses are the result of "inadvertent losses" due to premature harvesting, poor storage facilities, lack of infrastructure, lack of processing facilities, and inadequate market facilities along the entire food supply chain (FSC). Field data from NCAER reveals that average wastage in cooperative operations is just around 3.7% of the products, which is considerably below the present wastage level in the overall economy and to this extent cooperatives are seen to be more efficient in their operations. It may be noted that only 10% out of 370 million tonnes of perishable food products can be accommodated in the existing cold stores, spelling out a huge gap in the needed infrastructure. This indicates the need for massive investment in cold storage infrastructure and the potential for cooperative ownership of such facilities through appropriate funding. This would enable the numerous small producers' to access storage facilities at a low cost. Apart from this, the cooperative sector can also play a key role in waste recycling and also organising training programmes to make use of waste minimising concepts and technologies.

Cooperatives can import technologies from the developed countries already using those technologies allowing them to substantially reduce wastages, particularly, on handling and storage, processing, packaging and distribution, and to an extent, in on-field operations. The condition of processing plants plays a major role in defining the extent of post-harvest losses. Similarly, lack of adequate and appropriate packaging leads to transportation losses while moving products to the market. These losses are likely to be far greater if poor packaging is accompanied by poor logistics for marketing. Poor market logistics is a big concern in less developed food supply chains.

In India, statistics on manufacturing are obtained by two different agencies for two different size-classes/types of enterprises. Annual Survey of Industries (ASI) collects data annually from the manufacturer registered units under the Factories Act, whereas National Sample Survey Organisation (NSSO) collects information from the unregistered/informal sector enterprises with five year interval. An analysis of ASI units in the registered factory sector reveal that in the case of agro-processing, the performance level, measured in terms of value added per labour, is generally higher for those units that are found to have borrowed from some or other sources. On an average, borrowing units use more capital intensive techniques, i.e. more plant, machinery, tools and equipment per labour, than the others. The number of persons engaged per factory unit is also found to be higher in the case of borrowing units. All these findings suggest that the shortage of funds is a major factor resulting in the cooperative units operating as they are invariably found to do at suboptimal levels. Borrowing enables them to raise the scale of their operations and use more sophisticated machinery, tools or equipment. More interestingly, among the borrowing enterprises, those that borrow from cooperatives are found to perform better in quite a few major industries, including food processing. Cooperative finance would certainly help these enterprises improve their performance.

ASI data on the factory sector shows that factories registered as cooperatives have shown substantial growth over the last decade. The Output value of cooperative

factories, at current prices, increased from Rs. 286 billion in 2004-05 to Rs. 668 billion in 2009-10 and further to Rs. 929 billion in 2011-12. This high growth obviously reflects the capacity of the cooperative factory sector to absorb fund flow to the sector. In fact, the sector would need substantially larger funding in the near future for its modernisation, which is an impingent requirement for its efficient functioning. Out of the total non-functional factories, cooperatives constitute 7.93%, whereas non-cooperative factories account for a much higher proportion at 19.77% in 2011-12. The percentage of non-operational agro processing cooperative units is 5.39% as compared to 21.55% in case of non-cooperative agro-processing units.

The contribution of agro-processing to the GDP of the manufacturing sector was about 4.7% in 1999-2000, and declined to 3.0% in 2010-11. Of this, the registered sector's contribution was 5.3% in 1999-2000, which has declined to 4.3% in 2010-11. Similarly, the contribution of the unregistered sector has also declined from 5.1% to 2.8% during the same period. The food processing sector is employment-driven and it is reckoned that an investment of Rs.1000 crore can provide employment to 54,000 persons in the industry. It is estimated that marketing of fruits from areas of abundance to places of scarcity will help stabilise fruit and vegetable prices. Small and marginal farmers, who operate farms of less than 1-2 hectares, with limited access to resources and technology, dominate the fruit and vegetable production in India. Poor quality of produce and high levels of post-harvest losses occur primarily due to the use of poor quality inputs, poor cultural practices at the production level, and lack of adequate and updated knowledge and skill in harvesting and post-harvest handling. The situation is further aggravated by the lack of storage and transportation facilities along with warm humid climates within the region. In this respect, cooperatives can play a pro-active role to stimulate the development of partnerships among suppliers to meet volume requirements, assure consistency of supplies and to enhance efficiency in marketing facilitated by infrastructural support and technical and financial input and support from governments and NCDC.

The current market orientation necessitates the institution of stronger institutional support mechanisms to facilitate the capacity of the stakeholders in enhancing the competitiveness of the fresh produce and value-added products for the market. In this regard, governments must put in place a long-term vision and strategy to integrate all elements of the supply chain to ensure that production is linked to market demand and opportunities. Since much of the production takes place in the rural sector, emphasis must be placed on fostering agri-business development in rural areas and cooperatives can be an ideal format to take this design forward.

In the last decade, there has been a deceleration in the growth rate of agricultural GDP. Further, state-wise trends indicate that the largest slump occurred in those areas/states that are predominantly rain fed. The depressing state of food grain production is further reflected in the growth of food grain procurement. The average rate of growth of food grain procurement is observed to be declining since 2005, and during 2013-15, the growth of procurement is (-) 11.2%, a substantial decline. The low and declining food grain procurement substantiates the need for better and more efficient storage and warehousing capabilities.

Rural and urban distribution of cooperative agro-processing units shows that among 1340 agro processing cooperatives, the rural urban share is in the ratio of 56.5: 43.5. On the other hand, among 57723 agro processing non cooperative units, rural urban

distribution is in the ratio of 45.0: 55.0. Of the combined 59063 agro processing units, both private and cooperative, the rural urban share is in the ratio of 45.2:54.8. A comparative statement on funding by NCDC, NABARD & Commercial Banks for the years 2007-08 to 2013-14 reveals that the cumulative percentage share of NCDC funding of post-harvest operations is as high as 47.9%, whereas in the case of NABARD it is 26.5%. Scheduled Commercial Banks (SCBs) account for a mere 18.4%.

In the composition of NCDC funding of post-harvest operations, the share of marketing is the highest at 29.1%, followed by sugar at 14.16%. Other funding varies from less than one percent to 1.85%. Of the total NCDC funding, credit for post-harvest operations for allied activities in agriculture (dairy, poultry and fisheries) accounts for 53.14%.

The statistic of NCDC funding of cooperatives of the designated weaker sections as well as service cooperatives (water conservation, irrigation, micro irrigation in rural areas, animal health care/health disease prevention, agricultural insurance and agricultural credit and rural sanitation/drainage/ sewage systems) constituting 49.1% of its total cumulative lending for the year 2008 to 2013-14 bears witness to the emphasis placed by it on the development of marginalised segments of the sector. It is therefore surprising that NCDC has since 2010 been disallowed the facility of interest subvention under priority sector lending by RBI, a facility which it had hitherto enjoyed since 1998.

As a result of this, and the consequent imperative for NCDC to source funds from the market, its cost of capital is rendered higher than that of NABARD and SCBs, consequentially becoming highly uncompetitive. Since NCDC is involved in planning, promoting, coordinating and financing of cooperative development programmes at the national level, providing as it does not only financial but also technical support to cooperative institutions of farmers and other sections associated with agriculture and allied rural economic activities, its high cost of capital becomes a major hindering factor to its attaining its mission and vision objectives , which in turn has implications for the overall development of the cooperative sector, particularly in the context of post-harvest operations.

In the overall composition of NABARD refinance, agriculture and allied activities account for 32.8%, post-harvest operations 26.5%, and credit for other activities is as high as 39.3%. Of other activities, disbursement on non-farm activities forms 29.4%. Credit for non-farm activities includes purchase of two/three wheelers by entrepreneurs, educational loans to individuals, all activities related to establishment of private schools and colleges and health care centres in rural areas, marketing outlets for rural products, promotion of tourism and information technology, rural infrastructure clusters and so on. It needs to be here emphasised that NABARD is covered under priority sector lending and also receives budgetary finance at very low rates of interest. Unlike NCDC, NABARD funding for post-harvest operations is confined only to three segments viz. Self-Help Groups, Land development, Storage and Market yards. The percentage share in NABARD total refinance of these three segments forms 20.8%, 4.2% and 1.5%, respectively.

Out of total deployment of gross bank credit of SCBs for agro-processing industries (18.4 %) the share of food processing constitutes 5.25% and that of other than food processing is 13.14% (Table 13.6). An important aspect that deserves to be highlighted here is the fact that the share of agro-processing cooperatives in the total outstanding credit by SCBs to agro-processing industries forms a very negligible amount to the extent of just 0.78% in the year 2013.

During the last 50 years, NCDC has provided financial assistance exclusively to cooperatives working in the field of sugar, textiles, dairy, poultry and livestock, fisheries and handlooms as well as several other sectors of the agricultural economy, in addition to providing technical knowhow and consultancy for the overall development of the cooperative sector. In spite of this, NCDCs earlier eligibility for inclusion for concessional finance under the scheme of priority sector lending was withdrawn with effect from 2010-11. In addition, NCDC has been facing tough competition from other developmental financial institutions run by the Government of India.

NABARD, in particular, has been slowly and steadily increasing its involvement in NCDC's mandated field of activities. Apart from agricultural credit, NABARD now offers assistance for project financing of activities in various fields like warehousing, fisheries, handlooms etc. for which NCDC was specially set up. In July 2014, the Finance Minister had announced that a special fund of Rs. 2000 crore would be set up in NABARD to make available affordable credit to agro-processing units being designated as Food Parks. The fund has since been established in NABARD by RBI.

Due to its autonomous status and monopoly in agriculture refinance, NABARD's interest rates are more competitive than those of NCDC in almost all spheres of agriculture and allied sector related activities. The main reason is its inherent advantage arising out of its low cost of funds.

The majority of the resources raised by NABARD, unlike NCDC, are due to mandates from the Government of India or provided from the Annual Union Budget. For example, the funds received by NABARD under the RIDF (Rs.83,863 crore outstanding at the end of Financial year 2014) are available at interest rates ranging from 3.5% to 6.5%, as per the RBI circular dated 16.03.2012. NABARD lends these funds at 8.00% as per the RBI directive, resulting in a large demand for the low cost funds. Increased viability and recoveries enable it to augment its reserves and surplus making for valuable additionality of funds for future lending.

In the absence of documented and reliable information regarding the cost of NABARD borrowing of funds under the STCRC (Rs.50, 000 crore outstanding at the end of FY14) fund and the Short Term Rural Credit (Refinance) Fund for RRBs (Rs.30,000 crore outstanding at the end of FY14), it may be assumed that the costs are similar to RIDF considering that the origins of both these funds are similar. Both these funds, like RIDF, were established with funds contributed by SCBs as a result of their inability to achieve their priority sector lending obligations. Thus, of the Rs. 2, 54,574 crore of financial resources of NABARD at the end of FY 14 Rs. 1, 63,863 crore or 64% of the total resources were low-cost resources.

Compared to the generous funding that NABARD is receiving at soft interest rates, NCDC has not received any mandated funds from the Government of India (GoI). During 2013-14, of the total disbursements of Rs.5,271.08crore, the disbursal of subsidy stood at only Rs. 104.83 crore i.e. a mere 2% of total disbursals. While the disbursal of subsidy does help in reducing the effective cost of funding, it must be recognised that at 2% of total disbursals, the magnitude is miniscule and places NCDC at an undeniable disadvantage when compared to the funding support that NABARD receives.

It bears repeating that compared to the cheaper sources of funding and budgetary support being provided to NABARD, NCDC has to source its funds from the market and as a result of this iniquitous financial resourcing , the cost of borrowing and funding by NCDC is universally higher than that of NABARD. This results in making its funding not only uncompetitive vis-à-vis NABARD, but also unfair to cooperatives borrowing from NCDC for similar activities as a result of the consequent market distortions that it engenders.

As a statutory creation of the Government of India (GOI) for playing an important role in post-harvest value addition, NCDC has not been given adequate support through central funding as is the case with NABARD, which has also been statutorily created to fulfil a pre-harvest funding portfolio. The undue imbalance in the importance given to pre-harvest funding vis-à-vis post-harvest funding needs to be urgently addressed.

The proportion of revenue and capital expenditure for the cooperative sector is an important indicator of the extent of cooperative activities at the state level. Revenue expenditure can be likened to consumption expenditure, while capital expenditure (loosely investment) adds to assets and productive potential. Both revenue and capital expenditure on cooperatives at the State level are less than 1% of the total budgetary expenditure A few points notable in this regard are:

- The proportion of revenue expenditure to total expenditure is higher than capital expenditure, implying that the recurring expenses and consumption are more for the cooperative State Departments and
- The proportionate capital expenditure in each year is far below the revenue expenditure, reflecting low long-term level of investments/projects in cooperatives.

Capital expenditure as a proportion to total expenditure shows a downward trend, reflecting receding importance of cooperative production activities in the State finances.

Paucity of funds under capital account indicates absence of enough scope for investment in spite of funds availability. This may be due to lack of initiative by the government to provide funds, required motivation, projects and technical know-how and capacity building. Another important point to be noted is that the share of cooperation is found to be declining over the years as a percentage of the total budgetary expenditure.

As there is little fiscal space, the cooperatives need to secure it urgently so as to tap the resources for productive uses that would lead to combined benefit of the larger section of society

Despite its credit portfolio having a preponderance of funding of the marginalised segments of the agro and allied sectors, over the years NCDC has grown in strength and financial stability with healthy parameters that have earned it consistently high credit ratings by ICRA and India Rating as well as ISO flagging. Its funding has steadily increased, as also its profitability, supported by a high recovery rate of its loans and its comfortable capital structure. The latter is, despite the fact, that NCDC does not get budgetary support of the kind that NABARD does.

Supported by a pool of competent human resources and streamlined and stringent lending norms and appraisal, NCDC has exhibited a resilient strength that needs to be budgetarily supported so as to enable it to in turn support segments of the agricultural and rural economy that need it most.

NCDC's role in financially assisting the cooperative sector provides an important insight that shows how the Corporation, despite difficulties in the existing scenario of non-interest subvention has been able to extend credit to strengthen the cooperative movement. Credit plus promotional and technical support is the root of NCDC's strength for its impressive recovery record

NCDC's stable profitability profile is again supported by low operating expenses and control on credit provisioning. Additionally, NCDC is a nodal agency for routing various capital investment subsidy programmes of the Government of India for cooperatives, which helps crystallise its lending rate and improve its competitiveness.

Having a strong determination to improve the strength of cooperative activities, NCDC withstands substantial exposure to relatively inferior credit profile borrowers i.e. cooperative banks and small cooperative societies, that are the channels for socio-economic welfare in the rural hinterland. Despite its clientele, NCDC's track record in maintaining a strong recovery profile as a result of adhering to a policy to ensure minimum security coverage and exposure to new/weaker societies through state government, helps it to moderate its risk to some extent. Although recovery of loans is a final step in the lending cycle, its being high is an outcome of the effective management of all integral phases of the lending cycle.

The Corporation has, over the years, evolved a sound approach, procedures and practices to accomplish the objectives of prudent financing to cooperatives to help them in achieving the purpose of projects/assistance. Its robust cycle in funding projects has been the reason for thesuccess rate in recoveries. This focuses on:

I. Promotion through close liaison and relationship with the State Governments and Cooperatives to promote its various schemes, various promotional meetings and discussions at state/district levels and changes in its schemes based on feedback to make them more client-centric.

II. Identification and Selection of right kind of projects

III. Evaluation/Appraisal of Projects is a stringent multi-stage process to analyse the project proposals for their genuineness, viability and sustainability involving:

- Examination of Proposals (in the Division),
- Report of Appraisal Team,
- Examination of Appraisal Report by the Programme Division,
- Examination in Finance Division,
- Placement of proposal before Screening Committee,
- Approval and Disbursement,
- Recovery, and
- Monitoring.

IV. High Customer Sensitivity and Concern

NCDC, as a strategy, believes in fostering a long term effective relationship with cooperatives. It, therefore, not only lends for projects/business but also extends lot of non-financial support aimed at creating appropriate conditions and synergy for cooperatives to successfully conceptualise and implement projects.
NCDC's strengths can be summarised as under:

- Mandated statutorily,
- Ability to mobilise funds at around base rate from banking channel,
- Track record in maintaining good asset quality,
- Stable profitability,
- Comfortable capitalisation (total debt/net worth of 3.37 times in 2015-16), and
- Nodal agency for routing some government subsidies/grants to cooperative sector, which increases its competitiveness.

Despite the fact that the credit profile of cooperative societies and banks is vulnerable given their small scale of operations and limited financial flexibility, the NCDC has been operating with the imminent attendant risks of financing this client portfolio, safeguarding itself with an adequate security mechanism in the form of

- Hypothecation of receivables
- Stock/ pledge of Fixed Deposit Receipts
- Mortgage of assets
- Tripartite arrangement with other co-financing banks in the case of Cooperative Societies and
- Successful track record of stringent timely collection from cooperative banks/societies

Through stringent monitoring of its lending, which has resulted in more profitable efforts by cooperatives, NCDC has been able to maintain comfortable asset quality indicators and its recovery performance with recovery ratio of more than 99% over last many years is impeccable.

Over the years NCDC has reported a stable, although moderate, profitability profile, as reflected in PAT/ATA of 2.2% and return on net worth of 10% during 2015-16. Key Financial Indicators of NCDC over the period 2010-11 demonstrate its robust growth and financial strength, strongly advocating its eminent suitability for the status of a Development Financing Institution for cooperative post-harvest activities and deserving strong Budgetary support at par, if not superior to, other statutory institutions such as NABARD. Such support will help offer the farmer a complete complementary package of pre harvest and post-harvest finance at affordable Rates of Interest.

Table E1: Key Financial Indicators of NCDC

(*Figures in Rs. Crore wherever relevant, others are in ratios and in percentages*)

	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11
Total Assets	8670.00	7872.71	6364.41	5922.40	7125.74	7085.73
Outstanding Loan as per Balance Sheet	8363.20	7585.50	6106.02	5545.99	6082.58	5435.33
Advances to Staff	1.25	1.16	1.17	1.29	1.70	1.57
Total Advances	8364.45	7586.66	6107.19	5547.28	6084.28	5436.90
NCDC Funds	1475.24	1323.68	1179.17	1001.48	874.85	792.93
Net Worth*	1953.58	1774.00	1604.69	1405.43	1266.36	1172.24
Total Income#	690.97	614.62	664.55	609.77	589.51	484.88
Net Profit^	179.58	169.30	199.27	139.07	94.12	96.79
Interest Margin/Average Assets	3.65	3.72	4.54	3.16	2.33	2.69
Non-Interest Income/ Average Assets	0.18	0.21	0.56	0.22	0.16	0.10
Operating expenses/ Average Assets	0.75	0.79	0.94	0.73	0.57	0.72
Operating profits/ Average Assets	3.08	3.15	4.16	2.65	1.92	2.06
Profit After Tax/ Average Assets	2.17	2.38	3.24	2.13	1.32	1.41
Gross NPA (%)	0.73	0.86	1.18	1.64	1.59	1.83
Net NPA/ Net Advances	0	0	0	0	0	0
Provisions/NPA	100%	100%	100%	100%	100%	100%
Total Debit/ Net Worth (Times)	3.37	3.36	2.88	3.10	4.49	4.90
Return on Average Net Worth	9.64	10.02	13.24	10.41	7.72	8.54

Source: NCDC.

In order to assess the impact of NCDC operations on the cooperative societies, a sample-based primary survey/case studies was been carried out by NCAER. The basic objective was to have a feel of the intensity and dimension of cooperative activities and alongside assess the magnitude of financial gap that exists at various levels. The case study was conducted through canvassing structured questionnaires for (a) Non-Credit Cooperative units and (b) the members associated with these cooperatives. The reference year for the study is 2013-14.

The primary survey was restricted to 316 cooperative units selected on a random basis out of the list gathered from various sources, including field offices of NCDC. Similarly, members who are associated with these selected cooperatives were also drawn on a random basis. In all, 1,758 members were selected to assess the degree of their association with cooperatives and the benefits that accrued to them as a result of their membership. The primary case study was conducted in seven states in consultation with NCDC. The states are:

1. Himachal Pradesh
2. Assam
3. West Bengal
4. Chhattisgarh
5. Gujarat
6. Maharashtra
7. Kerala

In each of these states, NCAER researchers and supervisors carried out the survey with the help of Field Investigators.

In the selected states, cooperative activities have shown the spirit of inclusiveness, in which the representation of underprivileged classes is important and significant. Given the fact that almost 43% of the underprivileged classes (SC, ST and OBCs combined) are members of these cooperatives, their activities should be accorded prime importance as a mechanism for social transformation and empowerment. It is also important to note that cooperatives work in a democratic environment as 75.4% of the cooperatives are operated through elected representatives In this regard, institutions such as NCDC, which cater to the needs of cooperatives through financial, professional and promotional support, should be given adequate leverage so that they can continue their efforts with wider coverage and effectiveness. Among states, women's participation in cooperative activities is important in Himachal Pradesh (46%), Kerala (37.7%) and Chhattisgarh (23.7%). The members get several benefits from cooperatives, starting from demonstration, training facilities to better quality seeds and loan at a cheaper interest rate.

The study supports the hypothesis that NCDC support (direct as well as indirect), has resulted in cooperative growth over the years in proportion to the length and breadth of investment and productivity. It has served to enhance productivity and profitability of the cooperative units by:

- Incentivising growers to produce more,
- NCDC officials are constantly in touch with the Apex bodies, and
- NCDC assesses the need of infrastructure and support to enhance the capacity of the same by providing working capital or margin money assistance.

Though the NCAER survey was restricted to only a select few cooperatively developed and under-developed states, the clear finding is that cooperative activities, despite having variation, exhibit a distinct trend of occupying increased space, mainly as a result of specialised support from NCDC.

Cooperatives over the years have grown in proportion to the length and breadth of investment and productivity. However, we can observe a distinct pattern, if we analyse the turnover pattern from 2011-12 to 2013-14.

Analysis of deflated percentage of turnover of the States to total turnover worked out for the States surveyed from 2011-12 to 2013-14 shows that Assam has the lowest turnover among the 7 states selected for the case study. However, over time, its turnover contribution is increasing. The same holds true for Himachal Pradesh, West Bengal and Gujarat. States like Chhattisgarh and Kerala show variation but enhanced their share distinctly in 2013-14. Maharashtra although still accounting for a large share in turnover, is the only state where the contribution has been sliding over time, while Gujarat has shown astounding improvement of cooperative activities, with its share in total turnover touching almost 48% in 2013-14.

It may also be noted that almost 63% of the products have been procured directly from the growers. Other cooperatives come next as a source of procurement with 12% and only 8% is procured from the wholesale market. Indisputably, the growers are the chief beneficiaries of cooperative procurement activities.

NCDC's role is also prominent in reducing the level of wastage in cooperative activities. Field data from NCAER reveals that average wastage in cooperative operations is just around 3.7% of the products, far below the present wastage level in the overall economy.

Timely financial and promotional support extended by NCDC has helped enhanced cooperative utilization and more than 66% of the units have utilised capacity at 100% level, which is a pointer to NCDC's crucial role in enhancing capacity utilisation, which is an important indicator of productivity. However, there are units that have reported more than 10% of losses due to wastage.

NCDC support for marketing and inputs has enabled almost 63% of produce to be procured directly from the growers. Other cooperatives come next with 12% and only 8% is procured from the wholesale market. Indisputably, the growers are the chief beneficiaries of cooperative procurement activities.

NCDC also plays a prominent role in reducing the level of wastage in cooperative activities. Field data from NCAER reveals that average wastage in cooperative operations is just around 3.7% of the products, far below the present wastage level in the overall economy. More than 66% of the units have utilised capacity at 100% level, which is a pointer to NCDC's crucial role in enhancing capacity utilisation, which is an important indicator of productivity.. However, there are units that have reported more than 10% of losses due to wastage. In view of the reasons for wastage revealed by the survey, NCDC's potential role to augment storage capacity is immense. NCDC has the domain knowledge and expertise that could be critical inputs to expand the support base of the cooperatives in raising infrastructure capacity.

Among the 34% of the responding units, who utilised less than full capacity, it is important to note that fund constraint is reported as the reason responsible by 13.3% of the under-utilised units, while lack of up to date machinery was reported by 6.6% units.

Reliable financial support from NCDC was cited by cooperative units as a main reason for utilisation of marketing capacity to the fullest level. Around 89% of the units have utilised marketing capacity up to 100% due to the specialised schemes of NCDC and input support for better utilisation and expansion. About 55.6% of the remaining under-utilised (11%) units attribute this to among others , inadequate transport facilities (5.64%), fund constraints (13.9%), and non-availability of credit from banks and financial institutions (2.8%). Accordingly, the gap in funding for marketing activities, which can be bridged by NCDC is around 22.34%.

Apart from the primary enumeration at the aggregate level, the few case studies carried out in different sectors across states to ascertain the impact of NCDC assistance at the ground level have demonstrated beneficial effects.

Fisheries

NCDC has so far implemented 17 projects in Kerala, one of the States surveyed, involving financial assistance of Rs.31726.28 lakh, all but one of which has been completed.
NCDC assistance has helped the fisher community of Kerala through:

- ✓ Provision of requisite infrastructure to primary fishermen cooperatives for effective operations and marketing,
- ✓ Increase of Beach level auctions over the years, both in terms of quality and value, helping achieve best prices for fishermen thereby increasing their income,
- ✓ Direct and indirect benefit to 12,150 active fishermen and around 10,000 fisher-folk, and
- ✓ Strengthening of cooperative linkages of MATSYAFED, its primaries and fishermen members by way of auction commission, supply of fishery requisites, consumer articles, fish marketing and capacity building of target group.

With around 55% of active fishermen in the State yet to receive any assistance from NCDC, the potential for funding fish cooperatives in Kerala is immense.

Gramin Bhandaran Yojana

The credit linked subsidy scheme was launched by GOI primarily to establish rural godowns to ensure the following advantages:

- Scientific storage leads to maintain quality for foodgrains
- Safety from rodents & insects
- Realisation of remunerative prices
- Pledge loans to Farmers against stored products
- Creation of employment in rural areas
- Timely availability of inputs

The scheme has made impressive progress since inception, by establishing 28087 godowns in the country creating storage capacity of 31.71 million MT as on 31.03.2012.

Under the scheme, 3648 godowns were constructed with NCDC assistance, mainly in Bihar, Haryana, Tamil Nadu and Uttar Pradesh, out of which 169 were selected for the study. All the godowns evaluated during the study were found to be fully utilized,

Interactions with farmers during the Survey revealed the success of the programme in achieving reduction in wastage to the extent of being as high as 75% and 30% on the lower side. The project also resulted in impressive employment generation and a positive impact on price realization was reported by 62.3% users.

Integrated Cooperative Development Projects (ICDP) in Hanumangarh (Rajasthan)/ Jhabua (Madhya Pradesh)/ Salem (Tamil Nadu)

Membership of PACS, PAMS, PLDB, Cooperative Wholesale Consumer Bhandars, and Dairy Cooperatives increased substantially as did their Share Capital, Reserves, Disbursement and Recovery of ST loans, Fertilizer business & Value of fertilizer

distribution , PDS and non-PDS business ,Storage Capacity of Godowns in the district, Wage employment , Profits earned , Marketing of Agricultural Produce and Percentage of loan Recovery. The Impact on DCCB in terms of its various financial parameters including Working capital and Deposits as well as Recovery to Demand of Loans has also been substantive. To elaborate, Godowns funded through the ICDP have been constructed by the DCCB at the village level, so the members of the cooperatives can store manure and fertilizers, seeds, insecticide/pesticides.

- As a result of the availability of storage facilities for agricultural inputs in the village godown, farmer members of the cooperative and nearby villages are able to save on transportation and time earlier spent for procuring manure/seeds.
- Consumer stores/shops were established in the PACS campus. These shops are working like 'super-markets' in some societies, where all essential goods are available at reasonable prices and quality is assured.
- Necessary furniture and fixtures have been provided to cooperative societies, leading to the infrastructural development of the respective societies, which has increased the efficiency and reputation of the society.
- Earlier, the godowns were in very bad condition and stored manure and seed was affected/damaged in rainy season and was not available to the farmers for next crop, but after the repairing of old godowns, it is fully utilized and condition of the godowns has improved.
- Safety of the cash and deposits kept in the societies has increased after safes were provided to the cooperatives.
- Boundary walls were constructed in the societies to avoid encroachments.
- Provision of share capital has resulted in enhancement of the society's good reputation, has consequently increased business and lead to societies running in profit.
- Borrowing power of the societies has increased.
- The training provided to the members of the management committee has enabled improvement of their skills and competency to run the cooperatives more efficiently.
- Exposure visits of Governing Bodies of cooperatives to other states have increased their knowledge of best practices of the cooperative movement in other states.
- Modernization of the DCCB and availability of sitting arrangements has given a new look to the Bank and enhanced its image and as a result the faith of its customers.
- The physical infrastructure created through the ICDP at the PACS level has enhanced the storage capacity of fertilizers & increased consumer business activities, farm inputs distribution, disbursement of credits and other-agribusiness development activities.
- The appearance of the PACS office building has improved which has more appeal to the public and has instilled confidence among the PACS customers.
- Strong Rooms with defender door, iron safe, safety lockers and burglary alarms have facilitated greater safety measures in PACS.
- Provision of Computers, Invertors, Modern Deposit counters, Electronic Jewel weighing machines, Note counting machines, Fake note detector machine and Furniture & Fittings have facilitated more confidence among staff of PACS and resulted in higher productivity.

- PACS, besides providing agricultural credit, grant Jewel Loans and loans to SHGs. The societies were permitted to accept deposits from members and non- members.
- Margin money provided to the assisted cooperatives has certainly helped in increasing the financial leveraging capacity of the cooperatives to avail fund from the DCCBs and continue their business as well as loaning and other income generating activities.
- Training and incentives provided under ICDP has certainly motivated the personnel in cooperatives and the working capacity of the cooperatives has improved significantly.
- The repayment behaviour of the cooperative members on ICDP loan is high.
- With an increase in business volume of the PACS, they are showing interest in diversifying their activities. This justifies further financial support by NCDC.
- With increase in the activities of the PACS, there is a need to right size the PACS in terms of manpower.
- Societies at PACS level should also be provided with computer and necessary software to keep the information about the quantum of business of the societies updated.

The NCAER also conducted studies of the Mulkanoor Cooperative Rural Bank & Marketing Society Ltd. (MCRBMS), Mulkanoor, Bheemadeverapally, Karimnagar District, Telangana State and Andhra Pradesh. While the first case study is of the impact assistance of the Mulkanoor Society for 3 Transport Vehicles, the latter deals with the impact for assistance towards godown. The Study found that the assistance was highly effective in increasing the income of the Society through rationalising transport costs and increasing the time value of stored produce of farmers.

The Bulk Milk Coolers (BMC) provided by the NCDC studied as a part of the Survey, also showed favourable impact on farmer and primary dairy cooperatives in terms of higher procurement prices, techno upgradation in handling raw milk, zero sourage and spoilage, hygienic handling and premises, flexibility in milk collection, scientific pricing, reduction in transportation costs, reduction in re rigeration load at main dairy and value addition as a result of efficiency in operations.

The Study also rooted for several important innovations mooted by NCDC. Since UP Milk Federations are not functioning at present, intervention by the Banaskantha District Cooperative Union is being mooted. However, the existing Federations in UP may also operate along with the Gujarat one based in Banskantha. The Banasktha Cooperative's involvement in the UP dairy sector would motivate the existing UP dairy federations, which are also planning to install plants in Lucknow and Banaras, to perform.

The Kaira District Cooperative Milk Producers Union Ltd, Anand in collaboration with NCDC has along the lines of the Banaskantha Union,ventured into several activities in West Bengal (WB) to set up 105 primary dairy cooperative societies in Burdwan, Bankura and Hoogly districts of West Bengal under the NCDC Bulk Milk Cooler Scheme. Bulk Milk Coolers at 21 Milk Procurement areas in West Bengal are being installed; The other component of the project includes installation of Automatic Milk Collection System (AMCS) at MOP area of Kolkata (West Bengal) under NCDC scheme through these 105 primary dairy cooperatives; installation of weighing scales of 200 Kgs. capacity with large platform, installation of Automatic

Machines with display; installation of Computer component with printers at 25 locations to facilitate Milk Procurement Operations. In 23 out of 25 locations, the Milk Machines Model: BMS- II will be installed.

The Institutional funding gap for cooperatives is one of the major focuses of the study. The funding gap is measured as the ratio of loan amount sanctioned by the financial institutions to the amount required by the cooperative units. It may be observed that as proportion of funding gap to funding requirement, Kerala topped the list with a gap as high as 59%, followed by Gujarat and West Bengal (accounting for almost 26%), Maharashtra (19%) and Himachal Pradesh (13%). The funding gap as a percent of funding requirement for all the seven states is around 21%.

The gap in funding cooperative units is high in a majority of the states and this reflects the need to revamp the entire credit mechanism. This implies that cooperatives are functioning much below the optimum level due to lack of credit facilities. This severely affects the healthy growth and functioning of the cooperative sector.

As regards funding, NCDC is observed to have done a highly commendable job in fulfilling the credit needs of cooperative units with state government guarantee. However, the NCAER pilot case study has noted, on an average, an overall gap (in terms of loan applied and sanctioned) of 37.5% for margin money/working capital requirement, 34.3% gap in investment fund requirement and 29.3% gap in direct funding requirement.

The fact that the cooperative societies are formed with welfare motive and pool resources to benefit a large section of society has been confirmed by 92% of the cooperatives studied on a 5-point scale. That Cooperative contribution to post-harvest activities has not been given its due credence by the policy makers has been reiterated by a majority of the respondents of the cooperative units. And also that the means and ways of achieving this are marred by the lack of modernisation and running the organisation like other business ventures. The highest agreement (87.2%) is in the final perception that the cooperative system needs thorough revamping in line with other business institutions in India.

The NCAER study has delved deep into the refinancing pattern of NABARD, which is mainly involved in financing crop loans & pre-harvest related activities. The Nationalised and Commercial Banks have a very low exposure in infrastructure development post-harvest activities of cooperatives partly due to their inexperience in the sectors, increasing their risk perception of such ventures thereby increasing interest rates as well as security norms. This leads to a negligible participation of public sector banks in fulfilling the requirements of the cooperative sector.

Over the years, the State Governments are withdrawing support to cooperatives. As a result, to meet the needs of cooperative sector, NCDC has to resort to direct funding which is now around 80% of its total lending. Hence, a large number of cooperatives are not able to expand their infrastructure & business as they cannot afford the rate of interest of NCDC on account of its own comparatively higher cost of funds and are unable to satisfy the stringent security norms that the mechanism of direct funding by NCDC stipulates.

Agriculture, particularly the agro processing sector faces cyclic ups and downs on account of vagaries of nature and uncertainties in market condition due to adverse demand and supply position. These adverse build ups, at various points of time, render cooperatives ineligible for bank finance when they need assistance the most. Overall post-harvest credit has remained very low in India with high inter-state variation. Adequate post-harvest funding is not only important for marketing and storage facilities, it is most important for development of agriculture in general and food security in particular.

The Study concludes that Cooperatives help farmers by providing top quality inputs- fertilizers, seeds, insecticides, pesticides etc. at reasonable prices. Farmers also get marketing support, warehousing facilities and transportation support from cooperatives. Service cooperative societies help the poor and marginal farmers with tractors, threshers and other equipment on rent. Rural cooperative societies are now entering into areas like real estate, power, insurance, healthcare and communication services.

Next to the public and private sectors, the cooperative sector has been recognised as the third important economic alternative in the Indian economy. Despite the fact that an important role is played by the cooperatives in economic growth, they do not receive due support from the Government like the Credit Guarantee Fund Scheme of MSME and BIFR, to name a few. The findings of the Study are a clear pointer to the need to give cooperatives the needed thrust for enabling them to grow in numbers and scale.

It must be emphasised, at the risk of repetition, that the *raison d'etre* of NCDC is the development of agricultural cooperatives for enabling them to undertake value adding post-harvest marketing, storage and processing of their member primary produce. While NCDC has done a creditable job in carrying out its role mandated by the highest body of the land despite all the handicaps that it faces, a large gap, and hence large potential, for NCDC to meet urgent needs of the farming community, still remains to be converted to positive outcomes.

The high rates of interest that NCDC is required to charge as a result of its high cost resources are a deterrent for cooperatives, particularly the cooperatives of the marginalised sections of Society. The Study has looked at various aspects of NCDC funding of the cooperative sector in accordance with the mandate that it has been statutorily given and found that NCDC funding has adhered to the strictest financial discipline, which has been recognised through its high ratings and ISI flagging. The Study has made out a rigorous case for NCDC's enhanced empowerment through providing it with adequate financial support.

It needs to be recognised that it is important for inclusive growth with equity, a basic objective of Government, to be achieved that NCDC is enabled to access low cost funds through various budgetary means earlier spelt out, such as:

- Access to RIDF
- Restoration of Access to Priority Sector Funding
- All Subsidies in related sectors of NCDC funding to be routed through NCDC as an integral part of its Schematic Assistance
- Interest Subvention to enable a lower Rate of Interest on its lending

Introduction

Background

The agricultural conditions and absence of institutional arrangements to provide finance to agriculturists during the latter part of the nineteenth century led to mounting distress and discontent in India. The Famine Commission of 1880 and 20 years later, the Famine Commission 1901 both highlighted the deep indebtedness of the Indian farmer, resulting in many cases in his land passing into the possession of the money lending classes. The Deccan Riots and the prevailing environment of discontent resulted in the government taking various initiatives but the legislative measures did not substantially improve the situation.

In 1901, the Famine Commission recommended the establishment of Rural Agricultural Banks through the establishment of Mutual Credit Associations. The underlying idea of a number of persons combining together was the voluntary creation of a new and valuable security. A strong association competent to offer guarantees and advantages of lending to groups instead of individuals were major advantages. Taking cognizance of these developments and to provide a legal basis for cooperative societies, the Edward Law Committee with Mr. Nicholson as one of the members was appointed by the Government to examine and recommend a course of action. The Cooperative Societies Bill, based on the recommendations of this Committee, was enacted on 25th March, 1904. As its name suggests, the Cooperative Credit Societies Act was restricted to credit cooperatives. By 1911, there were 5,300 societies in existence with a membership of over 3 lakhs.

With the developments in terms of growth in the number of cooperatives, far exceeding anticipation, the Cooperative Societies Act of 1912 became a necessity and cooperatives could be organized under this Act for providing non-credit services to their members.

In both agricultural and non-agricultural non-credit sectors, societies were organized, but most faced difficulties in operation as a result of opposition by private marketing agencies and also the inexperience of their office bearers. The setting up of the Reserve Bank of India (RBI) in 1934 was a major development in the thrust for agricultural credit.

The First Five Year Plan (1951-56), outlined in detail the vision of the cooperative movement in India and the rationale for emphasizing cooperatives and panchayats as preferred organizations for economic and political development. The Plan emphasized the adoption of the cooperative method of organization to cover all aspects of community development.

Against the background of growing indebtedness of farmers and distress faced as a consequence, a major watershed initiative at this time was the appointment by Government of the Gorwala Committee, popularly known as the All India Rural Credit Survey. The Committee was appointed in 1951 and submitted its report in 1954. It observed that large parts of the country were not covered by cooperatives and in such areas where it had been covered, a large segment of the agricultural population remained outside its membership. Among its major recommendations was the creation of the National Cooperative Development and Warehousing Board in 1956.

Another important development, at this time, which affected the cooperative sector, was the National Development Council Resolution (1958). The Resolution on Cooperative Policy stressed that cooperatives should be organized on the basis of the village community as the primary unit and that there should be close coordination between the village cooperative and the Panchayat.

Cooperatives over this period grew as a result of the conscious policy of the Government to encourage the cooperative form of organization as a means of enabling the small and the marginalized to avail the benefits of scale and technology in production, processing and marketing of their produce and were to be found in all sectors and across India. In 1963, the National Cooperative Development Corporation (NCDC) was established as a statutory corporation by an Act of Parliament. The establishment of the NCDC, which replaced the erstwhile National Cooperative Warehousing and Development Board, gave a great boost to the growth of cooperative marketing and processing societies, which was its main agenda.

Over time, the NCDC has evolved into a full-fledged Development Financing Institution for the cooperative sector in the post-harvest segment of agro processing related activities. Its activities gradually extended to cover all aspects and sectors of the Agriculture and allied sectors and notified commodities, and more recently to cover the financing of the service sector. With a small amount of budgetary support for its Central Schemes, NCDCs funding grew in magnitude and diversity. From the late Seventies onwards, it also became a channel for IDA (International Development Associations) and EEC (European Economic Community) assisted Projects, which gave its lending a major boost.

The liberalization of the economy since the early Eighties resulted in a reduced importance for cooperatives in the planning process and reduced State funding and budgetary support. Although there were several initiatives for freeing the cooperatives from State controls, the State still played a major role in the governance of cooperatives, until the passing of the 97th Constitutional Amendment Act in 2011.

With the reduced State funding and also its guarantee of loans to cooperatives, NCDC, in keeping with the dictates of the times, also introduced direct funding for Cooperatives against stringent appraisal and security norms. In the absence of budgetary support and with rising interest rates on its commercial borrowings, NCDC Rates of Interest on its assistance to the cooperative sector have also been rising and this was further aggravated by the withdrawal by RBI of its eligibility to avail low cost funds from Banks under the Priority Sector Funding, which it enjoyed between 1998 and 2010.

Further, NABARD's (National Bank for Agriculture & Rural Development) entry into funding sectors (1982), which were NCDC terrain traditionally, also resulted in its competing in a non-level field as NABARD is able to lend at much lower interest rates, receiving as it does a large proportion of its funding by way of budgeted low cost funds.

The huge demand of the sector for funds for post-harvest activities, for which NCDC was given statutory mandate, the gap that exists in capacity, and the mismatch in terms of the availability of funds aggravated by high cost of borrowing, has resulted in a falling share of funding for cooperatives.

The present Study has emerged out of NCDC's concern to get a fair deal for the cooperative sector in the post-harvest economic arena. The Study is aimed at examining the case for NCDC to be supported in the mission for which it was created.

The Rationale and Structure of the Study

In the past, in a generally prevalent self-sufficient village economy, the marketing of agricultural produce was carried out by farmers directly with the consumer through cash transactions or barter. The present day scenario is far more complex, involving a series of exchanges or transfers before the product reaches the final consumer.

The major functions involved in the marketing chain are processing, preparation for consumption, distribution and storage. Sales of products depend on factors such as demand and availability of storage facilities, etc. Products may be sold directly in the market or may be stored locally. They may be sold after cleaning, grading and processing by the farmer or by the village merchant. Sometimes customised processing is based on consumer need or the need to conserve the quality of that product. Finally, the distribution system matches the supply with the existing demand, through wholesalers and retailers located at various points of different markets, viz., primary, secondary or terminal markets.

Most agricultural products in India are sold by farmers to village traders or to moneylenders (to whom the farmers may be indebted). They may be sold at weekly markets in the farmer's village or in a nearby village. In the absence of such local outlets, the produce might be sold in the neighbouring village or a nearby town or in the *mandi*.

In addition to the several Central Government Organisations, which are involved in large-scale agricultural marketing viz. the Commission of Agricultural Costs, and Prices (CACP), Food Corporation of India (FCI), Cotton Corporation of India, Jute Corporation of India, NAFED (National Agricultural Cooperative Marketing Federation of India Ltd.), etc., there are also specialised marketing bodies for rubber, tea, coffee, tobacco, spices and vegetables.

Under the Agricultural Produce (Grading and Marketing) Act of 1937, more than forty primary commodities are compulsorily graded for export and voluntarily graded for internal consumption. These value added services add a new dimension to agri-produce. Food-processing is another revenue-generating area and has the potential to provide gainful employment to our youth. With the changing agricultural scenario and global competition, the need for gainfully exploiting the available resources at the maximum level cannot be overstated, as also the role of cooperatives in post-harvest processing, storage, transportation and trade apart from input procurement and other activities of agricultural operations. With a preponderance of marginal and small farmers, the scale of transactions in both input and output markets is inevitably small, resulting in a disproportionate increase in the unit cost of operation. Cooperatives for purchasing inputs or selling outputs, in this context, are a way of ensuring farmers realising the true value of their produce and also gaining pecuniary benefits of pooled large-scale transactions.

Agricultural products such as rice, wheat, other cereals, fruits, vegetables and other horticultural items are wasted in large quantities every year, due to the absence of or poor preservation, storage and transportation facilities. Cooperatively owned storage facilities, particularly for potato, have proven to be quite helpful facilitating not only the preservation of the produce but also avoiding a crash in prices due to distress selling. Such cooperative stores, keeping in mind the relevant preservation technologies for different commodities, can be constructed for other commodities.

Post-harvest value addition to agricultural produce in India is found to be quite low when compare to that of advanced countries and many other developing nations. This is due to several reasons, among them, the non-availability of suitable technology, lack of entrepreneurial skills among the rural people or the absence of markets for high-value products.

Producer cooperatives can address many of these problems and serve as an invaluable resource, since the less informed small producers tend to buy technology, machinery and inputs, and also market their products, through cooperatives. Some manufacturing/processing cooperatives perform both manufacturing as well as marketing activities and the members work on the shop floor, often within the premises of the cooperatives. Similarly traders' cooperatives, services providers' cooperatives, transporters' cooperatives etc., can help small enterprises in accessing resources and preferred markets.

The importance of cooperatives, particularly for small producers accessing the benefits of scale and value addition, needs to be understood in the background of the prevailing agricultural economic contexts, focussing on critical parameters such as agricultural production, parameters relating to farmer households, their landholding status etc. which the study has also covered.

The NCAER Study Report is structured as follows:

An overview of agricultural production and its position in the cooperative sector is given in **Section 1**. The discussion is extended to cover agricultural produce in the backdrop of the status of operational landholdings in agriculture along with the cooperative role in procurement and distribution of foodgrains in India. **Section 2** briefly summarises the extent of cooperative penetration in the country, and **Section 3** elaborates the reasons for low value-addition in agro-processing and the magnitude and level of institutional gaps for channelising the marketed surplus of the small and marginal farmers (thereby emphasising the need for invigorating cooperative activities).

A brief discussion regarding the producers of targeted markets is carried out in **Section 4. Section 5** presents the status of storage and warehousing in India, both important inputs to reduce wastage and add gainful value to the production activities of farmers.

Section 6 describes the terms of assistance for weaker section activities in some designated sectors, while **Section 7** elaborates on the potential of cooperatives to absorb flow of funds using some standardised analyses.

Section 8 focuses on a comparative analyses of funding post-harvest operations by National Cooperative Development Corporation (NCDC), National Bank for Agriculture and Rural Development (NABARD) and Scheduled Commercial Banks (SCBs), and **Section 9** looks atan assessment of the quantum of subsidy/ concessional finance in relation to disbursement of NCDC funds over the years.

Section 10 gives an overview of State finances with respect to revenue and capital expenditure linked to cooperative activities. **Section 11** examinesthe factors contributing to high recovery of loans by NCDC, while **Section 12** spells out the observations arising out of case studies of cooperative units in different States by NCAER. **Section 13** assesses some of the projects, which have catered to the need for promoting better opportunities to the members. Finally, **Section 14** concludes with the observations and policy imperatives that the study engenders.

1. Agriculture vis-a-vis Cooperatives

The agricultural sector plays a pivotal role in the Indian economy for generating employment, providing food security and discouraging migration and provides raw material and inputs to industry. Agriculture is the base for both forward and backward linkages with several other sectors of the economy.

The share of the agricultural sector of GDP of a country is an important indicator of its development. In 2013, the percentage share of GDP contributed by this sector and the Industries Sector in the Table 1.1 clearly show that India is much behind the world economy in terms of the average growth of agriculture vis-à-vis manufacturing. The growth of these two sectors could radically transform the Indian economy in multiple ways. Both of them can grow simultaneously, if agro-based industries play a significant role in the manufacturing sector.

Table 1.1: Percentage share of agriculture and allied sector to GDP, 2013

	India	Bangladesh	Sri Lanka	China	South Korea	World
Agriculture	17.4	17.2	10.6	10	2.6	6
Industry	25.8	28.9	32.4	43.9	39.2	30.7
Services	56.9	53.9	57	46.1	58.2	63.3

Source: The World Bank Fact Book.

1.1 Growth of the Indian Agricultural Sector

Despite its importance, the growth of the agricultural sector in the country has lagged behind the growth of all other sectors (Table 1.2). Lack of adequate investment, compounded by the absence of a favourable policy framework for post-harvest operations are, among others, major factors contributing to the comparatively lower growth of this sector.

Table 1.2: Growth of Agriculture at Factor Cost (CAGR)

	Agriculture	Industry	Service	GDP
1960-61	3.1	6.2	4.1	3.0
1970-71	2.4	5.6	4.7	4.6
1980-81	1.7	3.8	4.4	3.1
1990-91	3.8	5.9	6.7	5.4
2000-01	2.9	5.8	7.5	5.7
2013-14	3.7	4.5	9.1	6.6
2015-16	1.2	7.4	8.9	7.2

Source: CSO.

Recent data, using CSO's newly introduced GVA (Gross Value Added) method also points to tardier agricultural growth vis-à-vis overall growth. The miniscule increase of around 1.2% in agricultural growth in 2015-16 is alarming and calls for a relook at the policy on agriculture and cooperation.

Value addition in agriculture through adequate post-harvest investment is an important aspect that needs to be emphasised. The growth trends of agricultural production, especially food grains, pulses, oilseeds, cotton, jute & mesta, sugarcane and tobacco in Table 1.4 show that in addition to foodgrain production, the production of oilseeds, cotton, and sugarcane has increased significantly over the years, and improved post-harvest systems as well as processing of these crops is most

essential to ensure value addition as well as reduction in the spoilage and wastage that prevails.

Table 1.3:India's production of major agricultural crops (MT)

	Foodgrain	Cereals	Pulses	Oilseeds	Cotton	Jute & Mesta	Sugarcane
1980-81	129.6	119.0	10.6	9.4	7.0	8.2	154.3
1990-91	182.5	162.1	20.4	18.6	9.8	9.2	241.1
2000-01	196.8	185.7	11.1	18.4	9.5	10.6	296.0
2010-11	244.5	226.2	18.2	32.5	33.0	10.6	342.4
2011-12	259.3	242.2	17.1	29.8	35.2	11.4	361.0
2012-13	257.1	238.8	18.3	30.9	34.2	10.9	341.2
2013-14	265.0	245.8	19.3	32.7	35.9	11.7	352.1
2014-15	252.0	234.9	17.2	27.5	34.8	11.1	362.3
2015-16	251.6	235.2	16.3	25.3	30.0	10.5	348.4
2016-17*	275.7	252.7	23.0	32.1	33.1	10.6	306.7

Source: Directorate of Economics and Statistics; Department of Agriculture, Corporation & Farmers' Welfare.

* Fourth Advance Estimates.

1.2 Status of Agricultural Producers in India

Farmers are the major stakeholders of agri-business. They are the epicentre of activities linking the production with the distribution of agricultural commodities. Based on data from the 70th Round National Sample Survey, the following sub-sections give a snapshot of their position at the disaggregated level.

1.2.1 Operational Holdings

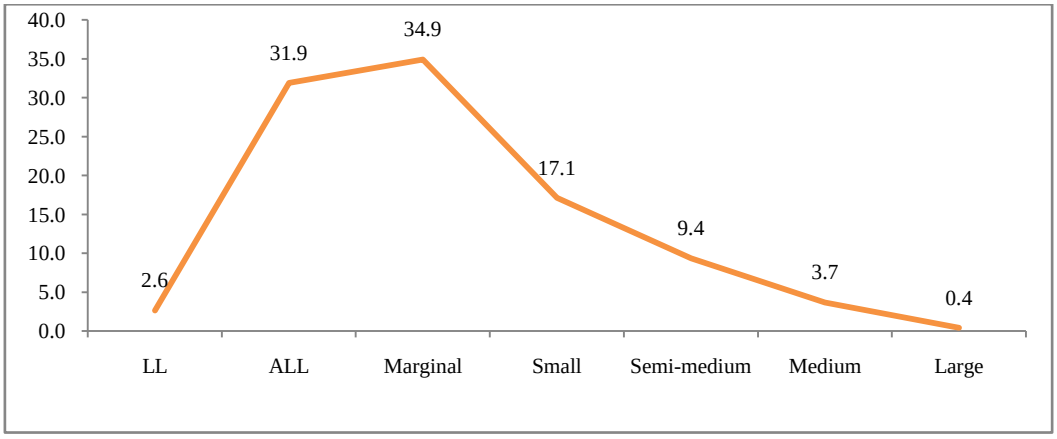
The total number of operational holdings in India increased from 106.62 million in 1990-91 to 138.35 million in 2010-11[1]. There has been a continuous increase in the share of marginal holdings from 59.44% to 67.10% Over the same period.The share of medium holdings steadily declined from 7.11% to 4.25% and that of large holdings from 1.55% to just 0.70%. This indicates an increasing trend in the number of marginal holdings and a substantial decline in the share of medium and large holdings (see Table F.3 in **Annexure F).**

1.2.2 Distribution of Households by Land Size

The number of agricultural households has been declining as per the NSS 70th Round. 2.6% of all agricultural households are considered landless and about 32% almost landless. More than half the agricultural households are marginal farmer households (34.9%), whereas medium and large farmers account for only about 3.7% and 0.4% (Figure 1.1) of the total farmer households.

[11] Source: http://pib.nic.in/newsite/PrintRelease.aspx?relid=132799. This result is released on 9th December, 2015 and Agriculture Statistics at a Glance, 2014 by the Ministry of Agriculture and Cooperation

Figure 1.1: Percentage Distribution of agricultural households by land size

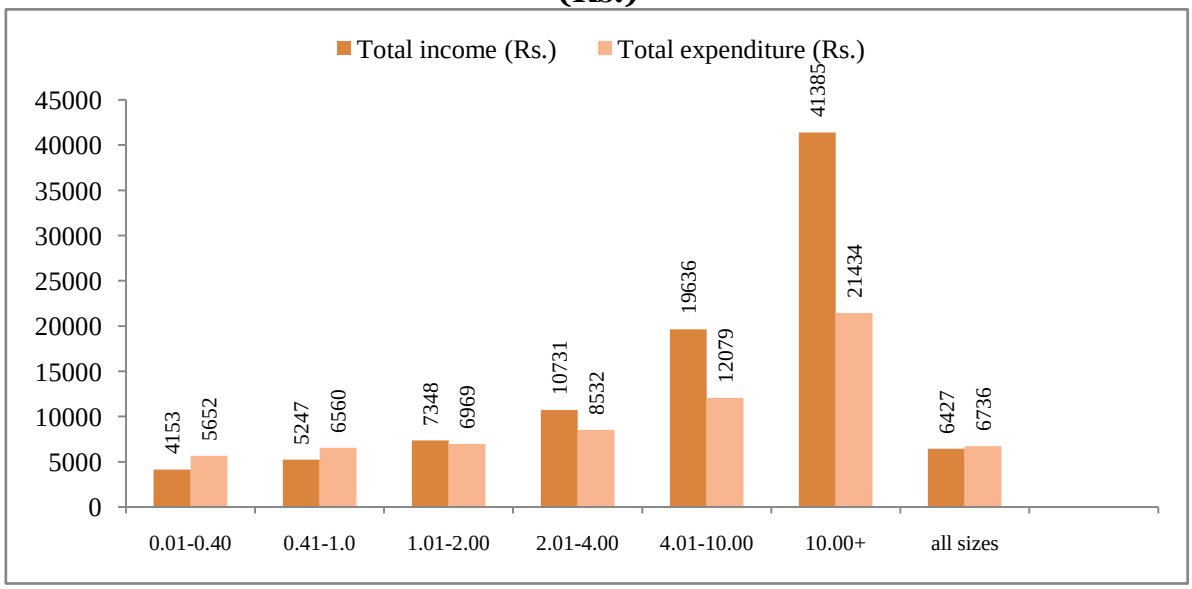


Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GOI, Note: LL=Landless, ALL=Almost Landless

1.2.3 Net Income of Farmers by Land Size

The expenditures incurred by small and marginal farmers, largely determined by the size of land possessed, is found to exceed their income, while semi-medium, medium and large farmers have sizeable positive monthly income.

Figure 1.2: Total income and expenditure of agricultural households (Rs.)



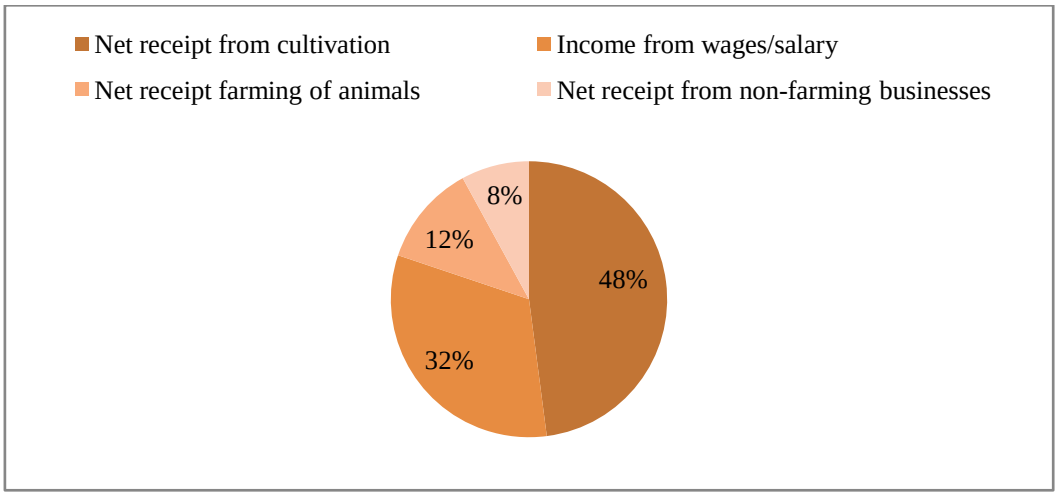
Source: NCAER estimation from the Situation of Agricultural Households in India, NSSO 70th Round (2014).

1.2.4 Sources of Income

Rural agricultural households have various sources of income, such as income from livestock, income from non-farm activities, income from wages & salaries and income from cultivation. Among these various sources from which the agricultural households receive income, the source which contributes maximum income is taken as the principal source of income.

Agriculture and Animal Farming are still the principal sources of income for most rural households and it is important that these households are provided opportunity for value addition in these activities.

Figure 1.3: Distribution of average monthly income by sources in agricultural households

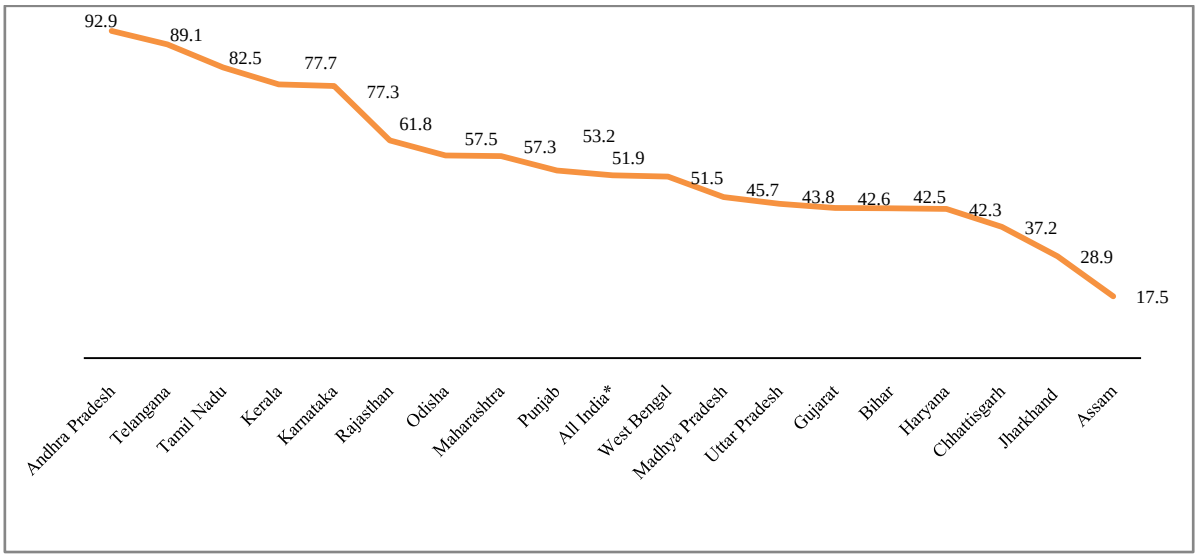


Source: NCAER estimation from; Situation of Agricultural Households in India, NSSO 70th round (2014)

1.2.5 Proportion of Indebted Agricultural Households

Except the group of large farmer households, almost all farm households are poor. NSSO's 70th round also collected information about the amount of loan outstanding on the date of survey from each surveyed agricultural household and finds that, on an average, 52% of all agricultural households in India are indebted.

Figure 1.4: Proportion of indebted agricultural households



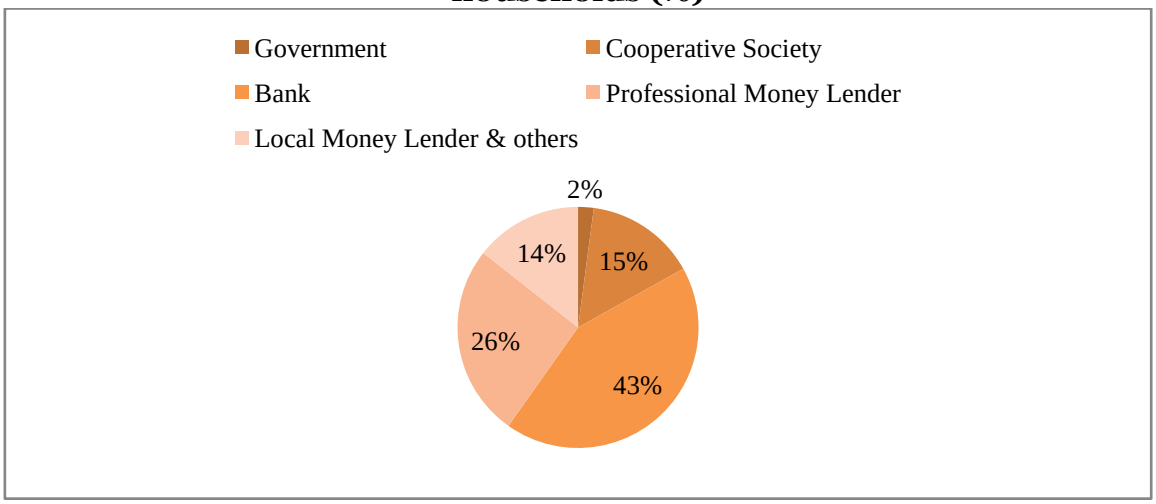
Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GoI.

1.2.6 Percent of Outstanding Loans taken by Farmer Households by Source of Loan

When one examines the distribution of loans by source from which taken, the results are revealing. At the all-India level, about 60% of outstanding loans were from institutional sources, which include 2% from government sources, 15% from cooperative societies and 43% from various banks. Among the non-institutional sources of credit, 26% comes from professional money lenders and 14% from local money lenders, relatives and friends (Figure 1.6).

Cooperatives are thus seen to be providing only 15% of total loans that a farmer raises. As institutions owned by farmers, loans from cooperatives are more user friendly and would be far easier for members to access. This indicates a vast potential for an increase of cooperative funding, which would vastly benefit cooperative members.

Figure 1.5: Outstanding loans by source of loan taken by farmer households (%)

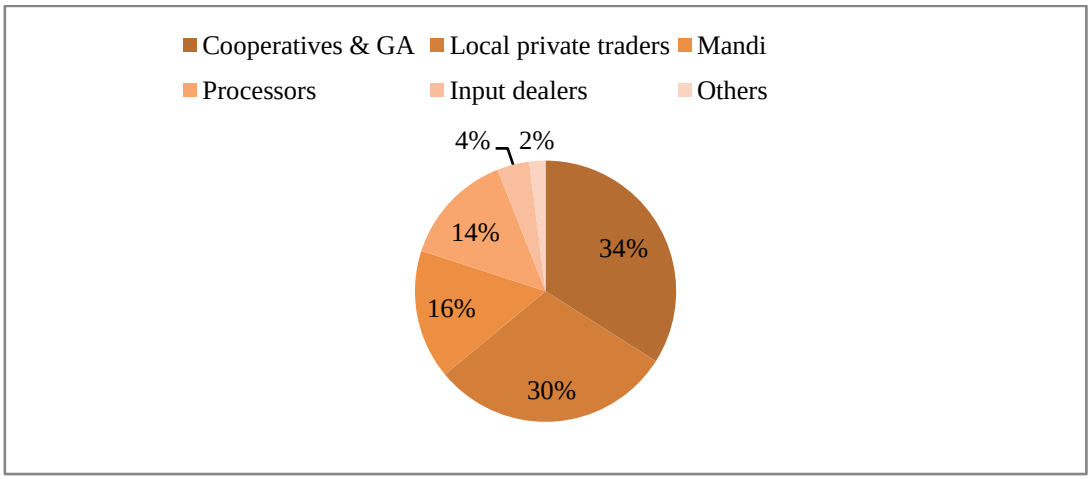


Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GoI.

1.2.7 Farmers' Links with the Cooperative Sector

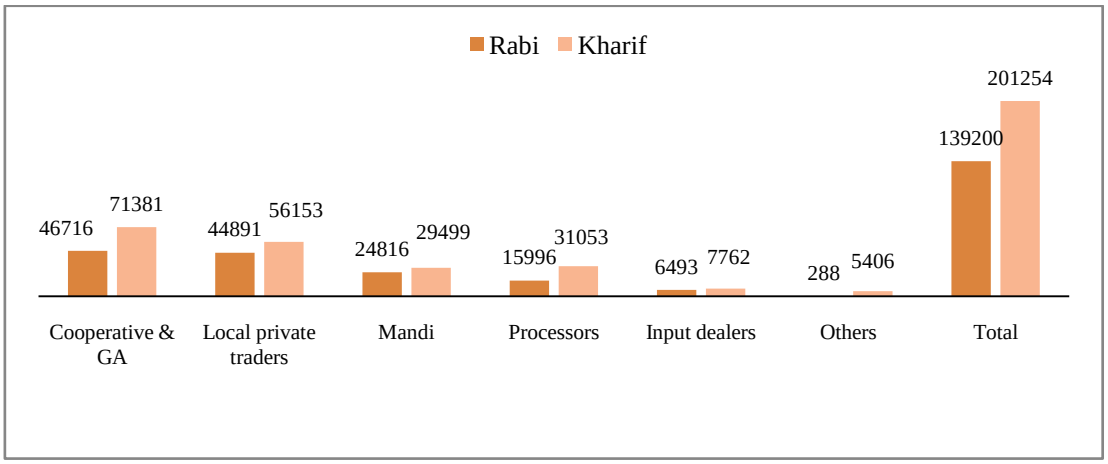
No direct evidence is available about the magnitude of farmer links with the cooperative sector. About 95.5% of villages are covered by Primary Agricultural Credit Societies (PACS). The PACS have around 55,813 godowns across the States, and more than one-third of the agricultural produce of the farmers is purchased by the cooperative sector (Figure 1.7). About 46% is sold to the local private traders and mandis, 14% to food processors and 2% to others.

Figure 1.6: Agricultural produce sold by agency (%)



Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GOI. Note: GA=Government Agency.

Figure 1.7: Quantity sold (000 tonnes) by Agency Kharif July, 2012-December 2012 and Rabi January 2013-June 2013



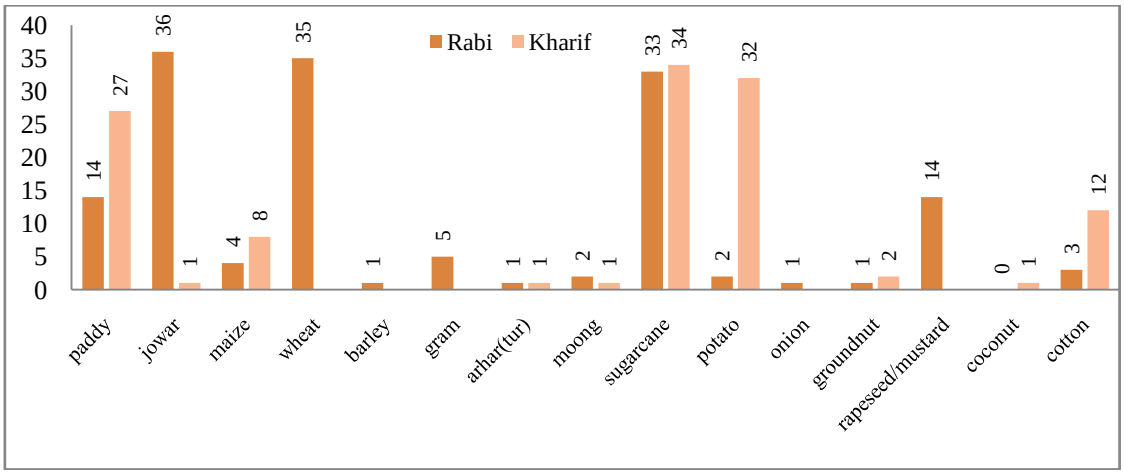
Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GOI. Note: GA=Government Agency.

One of the major problems that afflict the sector is that about one-third of total agricultural produce is purchased by the local private traders for speculative purposes. Purchasing it at a low price, often lower than the Minimum Support Price (MSP) during the harvest season, they sell the same at a higher price during the lean periods of the agriculture cycle. This practice, at times, contributes significantly to food inflation. Intervention by cooperatives to substantially reduce the amount purchased by the private traders through direct transactions with the farmers at MSP or more, will benefit the farmers by way of increasing their income. This will also help control food inflation. This indicates the need for the cooperative sector to increase its storage capacity, which in turn requires government support in the form of interest subvention as the activities of cooperative storage fall under "priority sector".

Another point that needs to be noted is that only a maximum of one-third of the agricultural produce is purchased by the procurement agency at Minimum Support

Prices (MSP) as shown in Figure 1.9 below. This aggravates the situation given the absence of adequate storage capacity as well as the low holding capacity of the farmers, who are left with no option but to dispose off their produce to traders at low prices immediately after the harvest.

Figure 1.8: Percentage of sale at MSP to total sale to procurement agencies

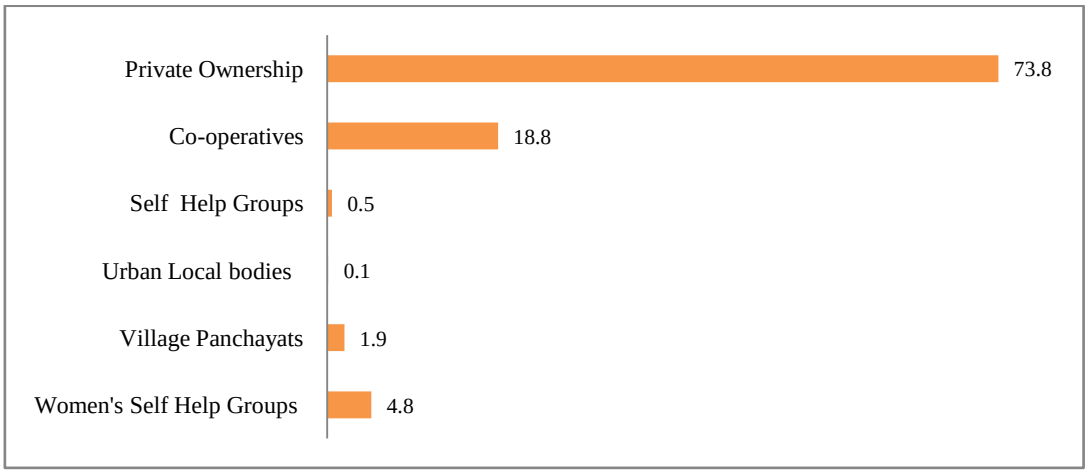


Source: Estimated by NCAER from NSSO 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GoI.

India has a large programme of public food grain distribution through a network of Fair Price Shops (FPS), both in rural and urban areas. With over 5 lakh FPS in operation, its reach in rural areas is deep and intensive. However, despite the policy of issuing FPS licence to womens / other self-help groups, village panchayats, urban local bodies and cooperatives, the combined percentage of their presence in the FPS in India is only 26.2% with private individual ownership accounting for a major share.

Both the absence of adequate storage facilities and inadequate presence of cooperatives in the Public Distribution System (PDS) has contributed to the dependence of the farmers on the private traders. Lending by cooperatives also is abysmally low and this leads to the inevitable cycle of high rate of interest and a debt trap for farmers.

Figure 1.9: Ownership distribution of FPS



Source: http://dfpd.nic.in/statement-reg-implementation-tpds.htm.

At the State level, the situation is far worse. Barring a few states like Chhattisgarh, Madhya Pradesh, Jharkhand (where womens self-help groups have an edge), all other States including Tamil Nadu, Karnataka, Bihar, Maharashtra and Gujarat, have a very low cooperative presence in FPS operations. Also importantly, in the States like Uttar Pradesh, Assam, West Bengal, Andhra Pradesh, Haryana and Kerala, which account for approximately half of India's population, cooperatives have a low presence in FPS.

Although cooperatives have enormous potential, due to policy hurdles, they have not received due credence in PDS operations which would greatly help to plug the loopholes and leakages. In States like Chhattisgarh, PACS (1,333 in numbers) played a crucial role in procurement and MARKFED (Marketing Federation) as a sole agency has brought in vitality in marketing produce. However, post-harvest investment in other potential areas (like mill operation) could not take off due to inadequacy of capital.

To break the low-capital - low-productivity syndrome, substantial investment of capital in the form of plant, machinery, tools and equipment is needed. Correspondingly organisational change in improving marketing/ procurement infrastructure would also be needed. In this respect, cooperatives could enable the producers to access cheaper and institutional sources of credit as well as capital equipment with improved production technology. Value-addition is a crucial imperative for agriculture and India needs more emphasis on post-harvest operations linked to procurement, storage, processing, grading and marketing. A sizeable production from agricultural operation is wasted due to lack of proper infrastructure. Despite the importance of post-harvest operations, financial credit largely flows to pre-harvest operations, sidestepping the post-harvest need. Revamping post-harvest priorities and measures for improve marketing/procurement infrastructure to enhance the value-addition process in agriculture, is an urgent need.

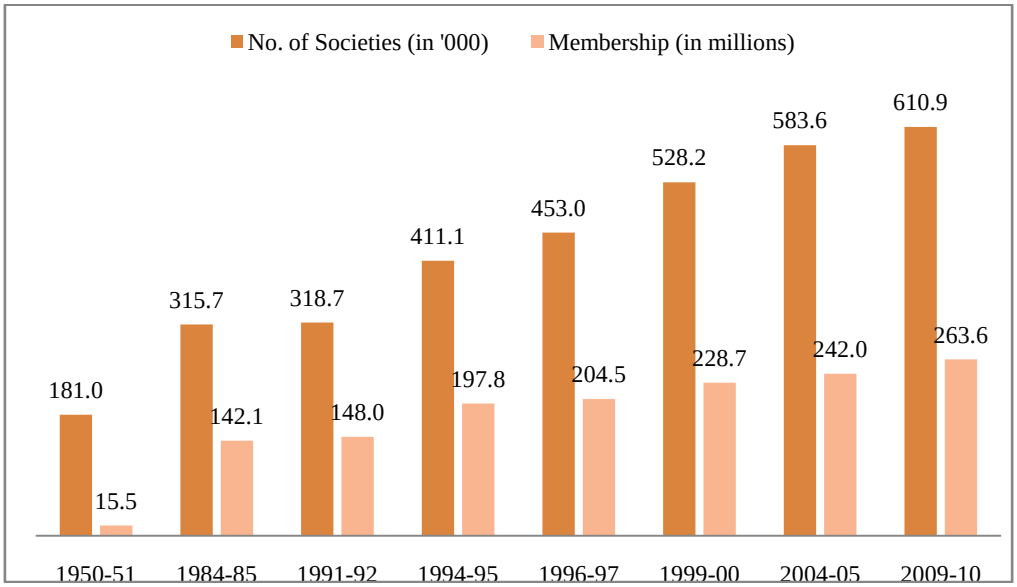
NCDC as a specialised institution for cooperative finance and development can play a vital role in augmenting post-harvest value-addition process through energising cooperative capabilities through credit and necessary support.

2. Cooperative Penetration in India: Level and Extent

The cooperative movement in India originated as an agricultural credit movement in the early 20th century. Lending for non credit activities was also introduced in 1912 and the cooperative movement steadily grew. After Independence, cooperatives assumed immense significance as instruments for eradication of poverty to achieve faster socio-economic growth. With the advent of the planning process, cooperatives became an integral part of the Five-Year Plans and the cooperative sector emerged as a distinct segment of national economy. In 1958, the National Development Council (NDC) had recommended a National Policy on Cooperatives.

Since then, there has been a substantial growth of this sector in diverse areas of the economy. The number of all types of cooperatives increased from 181000 in 1950-51 to around833000 in 2015-16. The total membership of cooperative societies increased from 15.5 million to around 275 million during the same period (Figure 2.1). On an average, there is a cooperative society for every 404 households in India.

Figure 2.1: Trend and progress of cooperative societies and its membership in post-Independence India



Source: Indian Cooperative Movement- A Statistical Profile, National Cooperative Union of India (NCUI).

Cooperatives in India have been operating in areas such as credit, production, processing, marketing, input distribution, housing, dairying, textiles, procurement and retailing, have achieved success in the areas like dairying, banking, housing, sugar, handlooms and are to be found in most sectors of the Indian economy including the service sector.

Funding the agro-processing sector, particularly the cooperative agro-processing units, is a major issue of development. It has been noted that the share of cooperatives in financing this sector is declining since 2007-08 as compared to the share of the Scheduled Commercial Banks. The lower share of cooperative financing displays lower fund flow to the cooperative units, especially to the units involved in agro-processing and marketing, thereby adversely affecting their viability. High rate of interest is an important factor for low institutional credit for agriculture investment by cooperatives.

Over the years, agriculture growth strategy, has been driven by concerns of increasing production and productivity. To achieve this, it is necessary to incentivise farmers by a thrust on the post-production phase. It is only through a demonstration of the value addition benefits likely to accrue, that the small farmer will be drawn to the cooperative model and it is important that such models are made viable through better management and easier finance than exists. In the small farm oriented agrarian structure, cooperative models are essential to reach out to small and marginal farmers. It is in recognition of this that State policies over the years have attached a great deal of importance to cooperatives to enable small farmers, especially households and cottage industries to acquire greater bargaining strength in the economy through access to credit, input and markets.

GDP in agriculture is increasingly being contributed to by sectors such as horticulture, animal husbandry and fisheries and calls for a careful review of the credit requirements in relation to the need of this growing sectors vis-à-vis crop sector. In this regard, policy makers should consider the following facts:

- Value addition in post-harvest operations is an important and pertinent issue to boost development of the rural economy.
- About 85% of the landholding in rural India is by small and marginal farmers who, being capital-starved, cannot make major investments in land improvement and acquisition of modern inputs.
- Institutional arrangements and policy support for backward and forward linkages are highly inadequate.
- There is lack of mutually supportive agriculture – industry symbiotic linkages that could lead to better post-harvest management and higher value addition.

Cooperatives have the potential and could play a major role to take this forward.The Government's intention to incorporate the National Cooperative Development Corporation (NCDC) as the National Cooperative Development Warehousing Board in 1956, and in 1963 as a Statutory Corporation for cooperatives in its present form, was precisely to invigorate the cooperatives in India through specialised promotional help and to create an institutional entity that would be specially available to them for their post-harvest needs, which are indeed crucial to their being able to access value added benefits.

The subsections below show how the small and marginal farmers go for distress selling of their produce and in this respect, cooperatives are the only way out to help earn remunerative prices for the poor people of the rural hinterland.

2.1 Small-scale transactions by farmers and the relevance of farmers' cooperatives

A major part of agricultural commodities is produced as well as marketed by the marginal and small-sized farmers. Because of the meagre output that they individually produce, these farmer sell the surplus in small quantities in the market (Table 3.1) that results in substantially raising their transaction costs per unit of quantity sold, rendering their prices uncompetitive and resulting in weak bargaining power in the market.

Table 2.1: Production of rice, wheat and potato by farmers across size classes, 2012-13

	Marginal	Small	Semi-medium	Medium	Large	All
In the case of Paddy						
Quantity produced per farmer household (kg)	1137	3020	4999	12609	34728	2025
Value of products per farmer household (Rs)	12824	35269	65459	170157	463494	24408
Value of byproducts per farmer household (Rs)	1383	2917	4390	6972	15742	1943
Total value per farmer household(Rs)	14086	37820	68900	175530	474117	26136
In the case of Wheat						
Quantity produced per farmer household (kg)	1039	958	1484	733	2667	1233
Value of products per farmer household (Rs)	19973	14989	29111	12138	53237	23412
Value of by-products per farmer household (Rs)	7646	2856	2031	1481	10681	5567
Total value per farmer household(Rs)	25555	16964	30083	13434	59180	27198
In the case of Potato						
Quantity produced per farmer household (kg)	605	1578	1323	11358	183310	1225
Value of products per farmer household (Rs)	4920	10795	11276	73003	1054436	8771
Value of byproducts per farmer household (Rs)	153	273	544	591	50	214
Total value per farmer household (Rs)	4942	10846	11350	73147	1054439	8805

Source: NSSO 70th Round.

It may be noted in this context that small farmers sell off their produce (i.e., First Major Disposal) at the first stage of production itself, implying that they are incapable of getting any price advantage as do the medium and the large farmers, primarily owing to financial distress, as well as the problem of storage.

It is equally disturbing that every year a huge amount of food stock gets wasted due to the archaic process of procurement and the poor and inadequate infrastructure for storage and warehousing. Storage losses of agricultural produce in the country account for approximately 10% of the entire produce valued at ₹80,000 crore every year. In addition to a huge burden on the economy leading to inflation, this results in depriving food to millions of poor. The wastage of some fruits and vegetables is as high as 70%, according to Biswas and Tortazada (2014). Due to lack of adequate storage and preservation, the available estimates (Indicate Source) indicate that the monetary values of all wastage amounts to $8.5 billion every year. While the wastage of fruits and vegetables alone was estimated at $2.11 billion, other food products like rice, wheat, cereals and meat also perish in the absence of adequate storage and warehousing facilities.

A typical post-harvest chain is characterised by a number of stages during the movement of harvested output from the field to the final retail market. The losses incurred at each step vary, but mainly occur in the early and middle stages of the food supply chains as a result of premature harvesting, poor storage facilities, infrastructure, processing facilities and inadequate market facilities. Data reveals that average wastage in cooperative operations is around 3.7% of the products, which is considerably below the present wastage level in the overall economy and to this extent cooperatives are more efficient in their operations.

Table 2.2 shows the estimated losses of food products annually. It may be noted that only 10% out of 370 million tonnes of perishable food products can be accommodated in the existing cold stores, spelling out a huge gap in the needed

infrastructure. This indicates the need for massive investment in cold storage infrastructure and the potential for cooperative ownership of such facilities through appropriate funding. This would enable the numerous small producers' to access storage facilities at a low cost. Apart from this, the cooperative sector can also play a key role in waste recycling and also organising training programmes to make use of waste minimising concepts and technologies.

Table 2.2: Estimated annual losses of food products

Crops	*Annual loss (%)	**Losses (million tonnes)
Cereals	3.9-6.0 (range)	14.26
Pulses	4.3-6.1 (range)	0.92
Oilseeds	2.8-10.1 (range)	2.0
Fruits and Vegetables	5.8-18.0 (range)	21.3
Milk	0.8	1.02
Fisheries (Inland)	6.9	0.36
Fisheries (Marine)	2.9	0.1
Meat	2.3	0.14
Poultry	3.7	0.13

Source: *CIPHET Study on Post-Harvest Losses 2010, Ministry of Food Processing Industries Annual Report 2012-13, Government of India. ** Estimated by NCAER.

The Indian market at the first disposal level, and by and large at all stages of disposal, is generally not differentiated by grades and quality, which tends to lower the profit margins for farmers. The quality of technology used and the labour availability also have a major impact on post-harvest losses. Weather and temperature fluctuations can have significant impacts on food losses, but mechanization and climate-control technologies can reduce these losses. Mechanization of the harvesting and food procurement process can improve efficiency, reducing losses. On the other hand, larger distances, faulty modes of transport and use of outdated storage containers lead to higher losses.

To summarise, three main factors appear to contribute to most losses: technology, weather and infrastructure. These factors, along with other site-specific factors, play a significant role in determining food losses from the farm to the retail outlet, as also contributing to controlling food losses through scientific management of the food chain.

3. Low Post-Harvest Value Addition: Need for Promoting Agro-Processing and Producer Cooperatives

India is the world's second largest producer of food next to China with the potential of being the biggest in the World. Food and food products are the biggest consumption category in India, with spending on food accounting for nearly 21% of India's GDP and with a market size of $181 billion in 2010-11 (Singh et al). The Indian domestic food market is expected to grow by nearly 40% of the current market size to reach $344 billion by 2025 (World of Food India, 2011; Merchant, 2008). India's agricultural production base is quite strong, but wastage is very high and the processing of food products is very low. While processing of food to consumable standards is at levels of up to 80% in some developed countries, the overall processing level in India has only recently reached 10%. This statistic highlights the fact that India's food processing sector and its share in exports of processed food in world trade which has remained at about 1.5% or $3.2 billion (Bhuyan, 2010), is comparatively small.

Generally, in developing country markets, higher incomes result in diet upgrades, with increased demand for meats, dairy products, and other high value products. In India also, sustained economic growth and increasing urbanization are fuelling rapid growth in demand for high value and high end food commodities like fruits, vegetables, milk, meat, eggs and fish (Rao et al 2004; Ali et al 2007). In the affluent and middle classes (estimated to number 350-375 million), although the percentage share of food expenditure vis-à-vis other products has dropped, the total expenditure on foods has increased across all classes. There is an increasing trend of a shift from food security as a primary concern to nutritional security and convenience shopping. Increased mobility, exposure, increased aspirations and availability of a wide range of products have also contributed to shifts in spending (World of Food India, 2011).

The agro food processing industry is one of the largest industries in India, employing around 18% of the country's industrial work force and is ranked fifth in terms of production, consumption, export and expected growth (Merchant, 2008). India also produces a variety of temperate to tropical fruits, vegetables and other food products. Processing of food products plays an important role in the conservation and effective utilization of fruits and vegetables. India's strong agricultural base, variety of climatic zones and accelerating economic growth holds significant potential for the food processing industry that provides a strong link between agriculture and consumers.

A major part of the post-harvest value addition (12.1%) is, however, contributed by the registered manufacturing sector, while the remaining 6.3% is contributed by the informal or unregistered sector.

3.1 Processing Activities

Agro-processing could be defined as a set of techno-economic activities carried out for conservation and handling of agricultural produce to make it usable as food, feed, fibre, fuel or industrial raw material. The agro-processing industry encompasses all operations from the stage of harvest until the material reaches the end destination in the desired form.

In India, statistics on manufacturing are obtained by two different agencies for two different size-classes/types of enterprises. The Annual Survey of Industries (ASI) collects information annually from the manufacturers registered under the Factories

Act, whereas the National Sample Survey Organisation (NSSO) collects information from the unregistered/informal sector enterprises with a five-year interval.

Using the data compiled by ASI and NSSO, it may be observed that in the case of the food industry, the contribution of the informal sector accounted for around 29% of the Gross Value Added (GVA) generated by the food industry (Table 5.2). The share of the informal sector in production, processing and preservation of meat, fish, fruit, vegetables, oils and fats (NIC2 151) accounts for 6.5% of the total GVA generated by the food industry as a whole (i.e. 2-digit group 15), whereas the share of formal sector enterprises is 11.84%. A similar distributional trend is found for grain mill products, starches, starch products, prepared animal feeds (NIC-153) and manufacture of other food products (group, 154). Taking each 3-digit group separately, the share of the informal sector is seen to be quite significant (35.39%; 12.55%; 42.26% and 21.87% respectively).

Table 3.1: Contribution of the Formal and Informal Sectors to Food Processing in India in 2011

Product categories (NIC-1998)	Share of informal sectors in combined GVA (ASI+NSSO) for group 15 (%) (2009-10)	Share of formal sectors in combined GVA (ASI+NSSO) for group 15 (%) (2009-10)	Share of informal sector in combined GVA (ASI+NSSO) for each three digit code in (%) (2009-10)	Share of formal sectors in combined GVA (ASI+NSSO) for group 15 (%) (2009-10)	GVA (crores)	Share of MSMEs (%)
151	6.48	11.84	35.39	64.61	8180	41.69
152	1.11	7.71	12.55	87.45	5330	49.55
153	10.91	14.91	42.26	57.74	10300	70.23
154	10.29	36.76	21.87	78.13	25400	42.24

Note: 151 - Production, processing and preservation of meat, fish, fruits, vegetables, oils and fats; 152 - Manufacture of dairy products; 153 - Manufacture of grain mill products, starches and starch products, and prepared animal feeds;154 - Manufacture of other food products.

Source: ASI (2009-10) and NS.

When one looks at it in terms of the number of enterprises, the food industry assumes high significance. The industry alone comprises as many as 20, 38,115 enterprises of which only 15,678 (0.77%) belong to the formal or registered factory sector, and the remaining 20, 22,437enterprises belong to the informal sector (Table 5.3). In the case of production, processing and preservation of meat, fish, fruits, vegetables, oils and fats (code 151), most of the enterprises in the informal sector are micro enterprises with very low value added per enterprise and low capital labour ratio.

[2] NIC stands for National Industrial Classification. NIC is an essential Statistical Standard for developing and maintaining comparable data base according to economic activities. The use of digit in the NIC is an important way of plotting the structure of industry in a simplified way. The one digit level represent the broad aggregation/generalisation, while 2-digit means a more disaggregation from the aggregated one digit level. Further disaggregation is reflected in 3-digit level, which enlarges the level of disaggregation and similarly with digit configuration from 4 to 7. For example, if division 1 represents manufacturing, division 13 is manufacture of textiles, 131 is spinning, weaving and finishing of textiles, 1311 is preparation and spinning of textile fibres and further disaggregation 13111 represent preparation and spinning of cotton fibre including blended cotton.

The phenomenon of low labour productivity and low capital intensity is also quite significant among the micro units of the registered sector; and both, productivity and capital intensity, increase systematically as one moves along size classes. In general, registered units have higher capital intensity than the informal sector enterprises. To break these low capital and low productivity linkages in a sector where more than 20 lakh food processing enterprises are concentrated, substantial investment of capital in the form of plant, machinery, tools and equipment is needed, and correspondingly organisational changes such as improving marketing/procurement infrastructure is imperative.

There are several policies, approaches and initiatives to break the deadlock; development of cooperatives can be a highly potent instrument that can serve the purpose. Cooperatives would enable the producers to access cheaper as well as institutional sources of credit and capital equipment with improved production technology which they are otherwise unable to access individually. It bears repeating that cooperatives could provide the desired support to producers in marketing products and sourcing raw materials through better organisational facilities. Economies of scale and the pecuniary gains arising out of bulk transactions by cooperatives could provide the producers with added advantages by reducing transaction costs and making the production, processing and marketing cycle more competitive.

Table 3.2: Size classes and labour productivity in formal and informal sectors, 2011

3 digit group (NIC-1998)		**Formal or Factory Sector**				**Informal Sector**	
		Micro	**Small**	**Medium**	**Large**	**Micro**	**Small**
151	Total GVA (Rs. Crores)	454	2200	756	4770	4420	61
	K/L (Rs.)	77435	432485	1017197	2275813	10972	444847
	GVA/L (Rs.)	205558	466715	499233	1122462	71482	89283
	No. of Enterprises	974	725	107	144	325288	209
	GVA/Enterprise (Rs)	**4661191**	**30344828**	**70654206**	**331250000**	**135880**	**2918660**
152	Total GVA (Rs. Crores)	135	1920	586	2700	765	
	K/L (Rs.)	167443	596028	934699	848940.5	22622	
	GVA/L (Rs.)	186879	688955	669781	1058286	42488	
	No. of Enterprises	216	394	29	52	69233	
	GVA/Enterprise (Rs)	**6250000**	**48730964**	**202068966**	**519230769**	**110496**	
153	Total GVA (Rs. Crores)	1960	4660	614	3040	7380	154
	K/L (Rs.)	78191	410358	490472	2131616	30664	779017
	GVA/L (Rs.)	202223	493793	774960	1182868	36462	364384
	No. of Enterprises	6149	2389	40	96	1139251	374
	GVA/Enterprise (Rs)	**3187510**	**19506069**	**153500000**	**316666667**	**64779**	**4117647**
154	Total GVA (Rs. Crores)	1550	7210	1970	14600	7070	38
	K/L (Rs.)	62028	239558	644768	1595146	11878	250043
	GVA/L (Rs.)	155260	390735	626901	1111740	43363	110703
	No. of Enterprises	2309	1571	107	376	488047	35
	GVA/Enterprise (Rs)	**6712863**	**45894335**	**184112150**	**388297872**	**144863**	**10857143**

Note: total number of enterprises is 2038115. Out of which only 15678 belong to registered sector and the remaining belong to informal sector.

Source: ASI (2010-11).

Table 3.3 presents different parameters of the informal sector's agro-processing enterprises belonging to 8 major three-digit sub-groups namely, food processing, beverages, tobacco, textiles, wearing apparel, leather, wood & cork and paper. Textiles and wearing apparels industries have largest number of enterprises, followed by tobacco and food products. It may be seen from the table that in addition to the food products industry, labour productivity is low also in seven other agro-processing industries of the informal sector, although with some variations. Similarly, low capital intensity and low value per enterprise are also found in all the industries. Further, employment generated per enterprise is also quite low.

One of the hypotheses for the low level of operation, low productivity of labour, low value of productive assets (such as plant, machinery, tools, equipment) of the micro and small enterprises is the shortage of capital which results from the lack of access to finance. A separate analysis has been undertaken to see if access to finance raises productivity. Table 3.4 discretely presents the performance of the enterprises that have borrowed or have outstanding loans. Separate statistics are provided for those enterprises that borrowed from the cooperatives.

Table 3.3: Selected parameters of the agro-industries belonging to informal sector, 2011

Industry group	Food products	Beverages	Tobacco	Textiles	Wearing Apparel	Leather	Wood & cork	Paper
No of enterprises	20,22,434	2,10,202	22,46,191	26,37,810	43,05,917	1,15,789	15,82,714	1,18,956
Per cent (%) distribution	15.28	1.59	16.97	19.92	32.52	0.87	11.95	0.90
Loan per borrowing enterprise (Rs)	129582	246674	79016	179641	43034	36732	86455	415815
No of enterprises borrowed (No. of borrowing enterprises to total enterprises)	165552 (0.81)	12229 (.058)	38491 (.0.17)	183625 (.069)	157004 (.036)	6668 (.057)	77996 (.049)	6473 (.054)
All sources Volume of loan (Rs crore)	2145	302	304	3299	676	25	674	269
Loan per borrower from coop. (Rs)	115457	61269	39417	339542	46998	56525	192571	108223
No of enterprises borrowed from coop. (No. of borrowing coops. as / of total number of borrowing enterprises)	21029 (.127)	223 (.018)	781 (.020)	17638	13520	305	5136	2811
Vol. of coop. loan outstanding(Rs crore)	243	1.4	3	599	64	2	99	30
Value added per labour(Rs)	44037	26308	12816	28145	32325	45090	31620	36913
Value added per labour of borrowing enterprises (Rs)	57304	50897	27011	55386	48175	58720	56420	95554
Value added per labour for borrowers from cooperative (Rs)	71503	41899	20389	67742	47164	49045	69582	112767
Capital asset excluding land and building per labour(Rs)	22874	12244	410	11650	6692	6928	6250	18175
Capital asset excluding land and building per labour of borrowing enterprises(Rs)	33850	52638	9538	59839	12078	8208	21388	69647
Capital asset excd. land and building per labour of enterprises borrowing from coop. (Rs)	37394	72333	4435	86779	12671	12657	28399	55111

Table 3.3: Selected parameters of the agro-industries belonging to informal sector, 2011

Value added per enterprise (Rs)	98605	55292	17236	80642	55664	125412	59873	156802
Total value added (Rs crore)	19942	1162	3872	21272	23968	1452	9476	1865
Employment per enterprise (No.)	2.175	1.763	1.372	2.218	1.512	2.792	1.784	2.861
Emp. Per borrowing enterprise (No.)	3.419	3.505	2.892	4.420	2.851	4.765	2.859	6.595
Emp. Per enterprise borrowing from coop. (No.)	3.539	3.650	4.475	5.001	2.654	3.177	5.887	3.988
Part-time emp. per enterprise (No.)	0.239	0.270	0.180	0.260	0.165	0.385	0.204	0.256
Part-time emp .per borrowing enterprise (No.)	0.270	0.247	0.303	0.239	0.189	0.382	0.247	0.146
Part-time emp .per enterprise borrowing from coop. (No.)	0.127	0.525	0.000	0.306	0.243	0.495	0.199	0.127
Male emp. Per enterprise (No.)	1.666	1.041	0.262	1.201	0.825	2.380	1.327	1.939
Male emp. Per borrowing enterprise (No.)	2.462	2.408	1.705	3.359	1.843	3.757	2.208	5.290
Male emp. per enterprise borrowed from coop. (No.)	2.415	3.274	2.420	3.961	1.986	3.007	2.289	3.852
Female emp. Per enterprise (No.)	0.509	0.722	1.109	1.016	0.687	0.411	0.457	0.922
Female emp. Per borrowing enterprise (No.)	0.957	1.097	1.186	1.061	1.008	1.008	0.651	1.305
Female emp. per enterprise borrowed from coop. (No.)	1.124	0.377	2.055	1.040	0.669	0.170	3.598	0.136

Source: NSSO.

It is quite evident that for most of the important per enterprise parameters such as productive assets, values added, employment, employment of female workers and labour productivity (value added per labour), borrowing enterprises in general perform much better. More interestingly, among the borrowing enterprises those that borrowed from cooperatives are found to perform better in quite a few major industries like food, beverage, textiles, wood & cork, leather and paper, in respect of most parameters like value adder per labour, productive asset, employment per enterprise and employment of women. This finding suggests that access to capital is very important for the development of agro-processing industry that cooperatives can play a decisive role in this regard.

Table 3.4: Selected parameters of the agro-industries belonging to factory sector, 2010

Industry sectors	Number of factory (all)	Number of factory (borrowed)	Value added per labour (Rs.)	Value added per labour of borrowing enterprise (Rs.)	*Fixed capital per labour (Rs.)	*Fixed capital per labour of borrowing enterprise (Rs.)	Workers per enterprise	Workers per borrowing enterprise
Support activities to agriculture and post-harvest crop activities	4172	2521	409919	488584	380513	451860	21.2	30.9
Processing and preserving of meat	145	102	560507	533355	531947	619758	115.0	86.1
Processing and preserving of fish, crustaceans and molluscs and products thereof	371	278	425179	396638	723746	768946	94.5	108.9
Processing and preserving of fruit and vegetables	1066	661	307640	293156	622359	640999	47.3	57.3
Manufacture of vegetable and animal oils and fats	3381	2145	2847807	3372800	747572	793845	27.3	33.3
Manufacture of dairy products	1552	823	500664	487564	1092328	1393467	69.6	92.7
Manufacture of grain mill products, starches and starch products	18982	11417	598665	609399	388562	463084	14.5	20.3
Manufacture of other food products	8000	4371	331364	366210	479055	575675	83.4	109.3
Manufacture of prepared animal feeds	747	410	673346	703408	499722	594999	43.7	50.4
Manufacture of beverages	1978	1168	632405	585104	1126941	1246684	59.0	62.6
Manufacture of tobacco products	3266	708	417308	901710	111624	285389	130.1	173.6
Spinning, weaving and finishing of textiles	12912	7601	295931	328324	549550	602773	78.3	115.5
Manufacture of other textiles	5523	2703	345517	394336	465883	511184	40.9	70.6
Manufacture of wearing apparel, except fur	5849	2561	350859	388111	224553	243753	103.9	175.5
Manufacture of articles of fur	30	17	-137876	309212	111607	156964	71.3	82.7
Manufacture of knitted and crocheted apparel	2578	1504	250842	257985	196033	224977	71.0	103.7
Tanning & dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	1887	983	287776	345136	396521	480166	46.2	65.0
Manufacture of footwear	1894	898	323118	378147	209489	252662	92.0	147.3
Saw milling and plaining of wood	1429	567	230475	303066	91927	141635	5.5	7.9
Manufacture of products of wood, cork, straw and plaiting materials	2817	1816	343979	353708	425424	465561	18.6	23.9
Manufacture of paper and paper products	6394	4288	364894	385306	591042	650699	31.2	38.3

*Excluding land and building.

ASI units covering registered factory sector also reveal that in the case of agro-processing, the performance level, measured in terms of value added per labour, is generally higher for those units that are found to have borrowed from some or other sources. On an average, borrowing units use more capital intensive techniques, i.e. more plant, machinery, tools and equipment per labour, than the others. The number of persons engaged per factory unit is also found to be higher in the case of borrowing units. All these suggest that shortage of funds is a major factor due to

which units operate at suboptimal levels. Borrowing enables them to raise the scale of their operation and use more sophisticated machinery, tools or equipment. Cooperative finance would expectedly help these enterprises improve their performance.

Table 3.5: Number of cooperative factory units in agro-processing (based on ASI data)

Industry sectors	Number of Factories 2004-05		Number of Factories 2009-10		Number of Factories 2011-12	
	All	Cooperative	All	Cooperative	All	Cooperative
Food	24915	256	31012	303	30412	275
Dairy	1004	277	1362	282	1552	321
Bakery	1256	5	1466	7	1380	6
Sugar	955	240	944	228	901	197
Beverages	1433	45	1825	24	1978	34
Tobacco	3602	247	4366	262	3266	208
Textile	17298	334	24986	315	18435	331
Leather	2829	15	4079	1	3781	8
Wood	3625	7	4522	15	4247	8
Paper	4671	33	6230	6	6394	8
Rubber	2319	10	2815	18	2640	7
Others	100031	619	140808	435	137881	523
Total	163938	2088	224416	1897	212867	1925

Source: ASI unit level data.

Tables 3.5, 3.6 and 3.7 presents the distribution of agro-processing cooperative units, value added per labour and fixed capital per labour (registered under the Factories Act, 1948). It may be seen that the number of cooperative factories is not rising in the recent period. Labour productivity in the cooperative agro-processing industries, measured in terms of value added per labour, remains much below the industry averages, with the sugar industry being the only exception. The use of productive capital like plant, machinery, tools and equipment per labour is at a much lower level in the case of cooperative factories as compared to the industry average. It is imperative to modernise the cooperatives through substantial capital investment. This would not only raise labour productivity but also revive the stagnant cooperative sector, particularly in post-harvest activities.

Table 3.6: Value added per labour (Rs) in agro-processing cooperatives (based on ASI data)

Industry sectors	Value added per labour in 2004-05		Value added per labour in 2009-10		Value added per labour in 2011-12	
	All	Cooperative	All	Cooperative	All	Cooperative
Food	127888	132702	271625	218884	423300	156932
Dairy	302430	232027	452627	597431	491425	372975
Bakery	166186	61352	385792	96537	304719	93801
Sugar	205712	160165	289731	216863	390867	402378
Beverages	281782	81433	652419	344259	902651	301283
Tobacco	110767	24481	181659	25647	230618	42344
Textile	154909	71036	253553	126054	290221	35392
Leather	109857	37954	208265	65424	211777	102320
Wood	98364	80123	201784	103936	316433	272123
Paper	249389	175757	332288	122577	441175	50234
Rubber	324973	118496	595522	359024	635550	-20058
Others	517126	321499	757860	325275	908831	923371
Total	366266	167011	592860	278544	727593	383219

Source: ASI unit level data.

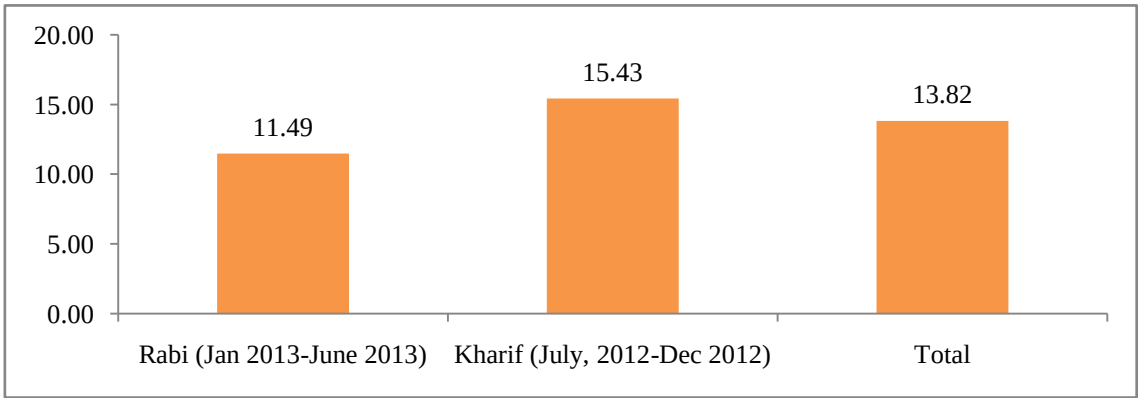
Table 3.7: Fixed capital (Rs) per labour (ASI data)

Industry sectors	Fixed capital* per labour in 2004-05		Fixed capital* per labour in 2009-10		Fixed capital* per labour in 2011-12	
	All	Cooperative	All	Cooperative	All	Cooperative
Food	197466	198901	394038	172701	566961	341136
Dairy	302741	167450	845631	388462	714100	486241
Bakery	198871	57441	373487	1292299	482590	3823
Sugar	539247	435719	1211105	596742	1666288	733973
Beverages	797938	567046	1164637	330811	1520169	386801
Tobacco	35684	2241	77290	5739	83235	202575
Textile	366196	212205	702920	363116	808436	496106
Leather	146707	79013	252949	42752	234297	1045670
Wood	194372	53736	388150	54655	624565	232386
Paper	729651	3956127	1436824	271223	1479140	32579
Rubber	514914	79257	823329	256113	1191896	172153
Others	822985	622862	1426440	2361457	1804763	1720021
Total	606907	351972	1143005	639561	1451311	715110

Source: ASI unit level data. Note: * - Fixed capital excludes value of land and building.

The above analysis leads to the conclusion that credit linkages to productivity should be an important consideration in framing the appropriate strategy for agricultural development in India in which cooperatives can and must play a strategic role. In 2012-13, NCAER conducted a survey of farmers and traders for assessing the amounts of various agricultural commodities purchased by various processors for processing (Agriculture Outlook Survey for the Ministry of Agriculture & Cooperation). Based on NSSO's 70th round, one can partially assess the magnitude of agricultural output that goes for processing, aligning it with the data on the quantities of commodities purchased by processors directly from farmers. The level of food processing in India thus derived is found to be very low, with about 14% of all foodgrains being processed, during the post-harvest period, 11.49% which goes for processing during the Rabi and 15.43% in the Kharif season. Only about 2.2% of fruits and vegetables are processed. The processing levels of dairy & meat products is comparably considerably higher, with about 37% of dairy products, 26% of marine products, and 20% of buffalo meat being processed.

Figure: 3.1: Food grain processed in India during agricultural seasons



Source: Estimated by NCAER from NSS 70th Round (January-December 2013) Ministry of Statistics and Programme Implementation, GoI.

Table 3.8: Level of processing of all other food products

Products	Processing as per cent of total products	Products(Million Tonnes) (2011-12)
i. Fruits & Vegetable	2.2	236(Vegetable, Fruits, Potatoes and Onion)
ii. Milk/Dairy	37	127 (000 MT)
iii. Buffalo Meat	20	113
iv. Poultry	6	942
v. Marine	26	3225(000 MT)
vi. Food grains	14*	255.4

Note: *NCAER estimation from NSS 70th Round.

Source: Ministry of food processing annual report and Agricultural Statistics at a Glance.

Food processing offers an opportunity for the creation of sustainable livelihoods and economic development in rural areas and it benefits all sections of society — farmers get better return, higher yield and lower risk of wastage while storing and consumers have choice with more variety and ready-to-eat food. The sector also offers rural youth opportunities for entrepreneurship and workers for employment. Employment in the food processing (registered) sector is meagre and increasing only at 0.44% annually and considering the vast potential for this sector it can help generate employment in a major way.

Table 3.9: Persons employed in registered food processing industries

Year	Employment (Lakh)
2006-07	14.76
2007-08	15.05
2008-09	15.64
2009-10	16.06
2010-11	16.75
2011-12	15.85
2012-13	15.08
Average growth (%) during 2007-13	0.44

Source: Annual Survey of Industries, MOSPI.

The flow of FDI (Foreign Direct Investment) in the food processing sector has been increasing over time from Rs.279 crore in 2007-08 to Rs.25107 crore in 2013-14. Despite the strong growth in investment, a relatively small percentage of agricultural products are presently processed, suggesting that there exists a large potential for future growth. Cooperative storage as well as marketing by cooperatives can play a crucial role in this regard.

3.2 Indigenous Fruit Processing

India produces a range of indigenous tropical fruits, of excellent flavour and colour, many of which are recognised for their therapeutic/ medicinal and nutritive value. Many fruits are, however, underutilised and not commercialized. With increasingly health-consciousness and awareness of the nutritional benefits of food consumed, there is an increasing tendency among consumers to avoid the consumption of chemically treated foods.

Some of the fruits produced in India, although unappealing in the fresh form, offer considerable potential for processing and marketing. Bael fruit for example, which has a hard shell and mucilaginous texture, is not popularly consumed as a dessert fruit in India. Kokum is another fruit which is not acceptable in the fresh form owing to its high acidity levels, while fresh anola has a strong astringent taste. Though some value-added fruit products are currently being manufactured on a small scale, no

systematic efforts have so far been made to utilise the potential of indigenous fruit on a large scale, primarily due to the scattered production and inadequate raw material.

The development of orchards and systematic collection of raw material is of utmost importance in developing fruit processing industries. Rather than competing in markets where products are already established, India must break new ground and create markets for value-added products from its indigenous fruits, which could offer a competitive advantage.

Considerable volumes of unmarketable and physically damaged fruits and vegetables that are available without infection can be converted into value added products by processing. By-products of fruits and vegetables processing could also be gainfully utilised.

Market opportunities exist for several processed foods such as dehydrated fruit, canned fruit and vegetables, frozen vegetables, pickled fruit and vegetables, mango pulp, pineapple concentrate, tomato ketchup and paste, fruit juices (mango, orange, pineapple), potato chips and other potato products, both in domestic and export markets.

All the products mentioned above have immense potential. Both cooperatives and private players should grab the opportunity and cooperatives could help induct the necessary technology at the village/field level. Since post-harvest management determines food quality and safety, competitiveness in the market and the profits earned by producers, cooperatives can play a major role by synergic investment in various processes linking storage, preservation, grading, handling and marketing operations. This would also require capacity building of individual actors, including cooperatives, and strengthening the policy/institutional settings.

Although India is a major producer of horticultural crops, many Indians are unable to obtain their daily requirement of fruit and vegetables, and the Human Development Index (HDI) is very low. Increasing population continues to create demand for fresh produce and processed horticultural products. Meeting these requirements as well as those of export markets necessitates assuring quality and safety in both domestic and export supply chains. Capacities must, therefore, be developed across the region in order to respond to consumer and market demand and to prevent large numbers of small farmers from becoming marginalised. At the same time, governments must develop a vision for the development of the post-harvest sector and facilitate activities within the sector in order to realise that vision.

Considerable scope exists for both domestic and export trade in fruits and vegetables in India. This could be achieved with improved distribution and processing of these highly perishable horticultural commodities. The food processing sector is employment-driven and it is reckoned that an investment of Rs.1,000 crore can provide employment to 54,000 persons in that industry. Moreover, marketing of fruits from areas of abundance to places of scarcity will help stabilise fruit and vegetable prices.

Major constraints for the growth of the Indian food processing industry include the absence of adequate infrastructure, particularly rural road connectivity, inadequacy of information and marketing linkages, lack of electricity supply, and the absence of cold chain systems. The cold chain capacity caters to less than 10% of the produce and within that facilities are so rudimentary that over 80% are only capable of handling potatoes.

Maintaining quality standards is another major constraint characterised by two aspects. First, there is poor infrastructure for storing raw food materials. The two main types of storage – warehouses and cold storages, lag in storage standards. Pests infest the grains sometimes due to lack of monitoring, lack of use of proper pesticides and proper ventilation. Similarly, frequent power outages result in sub optimally functioning of cold-storages and the quality of stored food material thereby becomes questionable.

The second important aspect is having poor quality standards ad well as control methods for implementing the quality standards for processing and packaging the processed foods. For example, vegetables may not be washed properly and processed into either 'ready to eat food' or packaged as 'cut and ready to cook' vegetables.

High costs and low availability of credit remain a problem because even within the priority sector lending by banks for agriculture, food processing receives only 4.5% of the ear-marked credit. Moreover, the regulatory framework preventing farmers from directly marketing their produce, adds to cost and impairs flexibility.

Packaging is usually poor but its cost is high and becomes untenable for small producers. Another important constraint is the complex legal framework, with food laws currently spanning nine ministries, comprising 13 central orders alone. In addition, States pass their own control orders, thereby adding to a multiplicity of controls.

In Table 3.10, a SWOT analysis of the Indian food processing industry is presented.

Table 3.10: SWOT Analysis of the Indian Food Processing Industry

Strengths	Weakness	Opportunities	Threats
• Availability of raw materials. • Support from the Central government • Considerable network of manufacturing facilities all over the country. • Vast domestic market.	• High requirement of working capital • Low availability of reliable and appropriate instruments and equipment. • Inadequate automation w.r.t. information management. • Remuneration less attractive for talent in comparison to other disciplines. • Poor linkages between R&D labs and industry.	• Intensive crop and material base in the country due to agro-ecological variability offers huge potential for agro processing activities. • Developments in contemporary technologies such as electronics, material science, computer, biotechnology etc. offer vast scope for rapid improvement and progress. • Opening of global markets may lead to export of developed technologies and facilitate generation of additional income and employment opportunities.	• Competition from global players • Lack of trained professionals Better working conditions prevailing elsewhere may lead to further shortage of manpower. • Rapid developments in contemporary requirements of the industry may lead to fast obsolescence.

Since NCDC is a specialised institution to provide technical as well as financial assistance, it has to be provided adequate financial leverage through enhancing its capacity to assist the much-needed value addition in the supply chain run by the cooperatives.

4. Targeted Market for Agro-based Producers

Agro-processing growers may broadly be grouped into four categories: small farmers, groups of farmer, clusters or cooperatives; commercial farmers and foreign entities or multinationals. These producer categories target different markets, depending upon their production capability and access to technology, market information and infrastructure.

Small and marginal farmers, who operate farms of less than 1-2 hectares, with limited access to resources and technology, dominate the fruit and vegetable production sector in India. They are seen to exhibit or no little interest in post-harvest and marketing activities, most of which are primarily undertaken by middlemen, traders and assemblers. The major markets of small farmers include highly unorganised traditional markets such as wholesale and wet markets with very limited access to financial resources and technology. Furthermore, lack of economies of scale, inconsistency of supply, safety concerns and limited skills in cold chain management pose challenges to meeting the volume and quality requirements of modern marketing systems and export markets competitively. Overcoming these challenges will necessitate the following:

- Proper regulatory frameworks governing the chain management and the quality of fresh produce
- Increased investment in Research & Development, training and extension programmes to build capacity in horticultural chain management and marketing
- Improved organisation of farmers and farming systems
- Increased access of small farmers and processors to credit and market information
- Above all, major emphasis on cooperative institutions to develop appropriate capacity to facilitate the implementation of these frameworks.

The growing need to cater to institutional markets, supermarkets and hypermarkets, with standardised quality has stimulated the development of partnerships among suppliers to meet volume requirements, assure consistency of supplies and to enhance efficiency in marketing. Average incomes in developing countries are low and so the marketing systems which deliver agricultural and food products have to be efficient if they are to be delivered at affordable prices.

Furthermore, economic growth is normally supplemented by acceleration in the rate of urbanisation. The end result is that greater demands are placed upon farmers.

Marketing systems have to be capable of signalling the needs of both consumers and industrial users of agricultural outputs to the farmers. The marketing system must also stimulate and reward all the parties whose participation is essential to the delivery of commodities and products in the quantities and quality demanded. Therefore, the marketing system as a whole has to be customer oriented.

A marketing system comprises the functions of marketing (buying and selling, storage, transport and processing along with standardisation of weights and measures, financing, risk bearing including market intelligence) and the organisations that perform them. Marketing systems have at least four sub-systems, *viz.* production, distribution, consumption and regulation. These sub-systems often have conflicting interests that have to be resolved if the system as a whole is to be efficient and effective.

The food industry is a major user of agricultural products and commodities. As disposable incomes increase due to higher growth in the economy, the food industry will have to meet new as well as different needs of its more affluent consumers. The food industry will, in turn, require Agriculture to support its efforts to meet the new challenges and opportunities. In particular, the food industry will demand that Agriculture produces a wider range of qualities of products and commodities. With a greater proportion of total supply in the top grades; downward pressure will be exerted on agricultural production costs; agriculture will be required to supply throughout the year rather than seasonally; reliability in the quantity, quality and timing of supplies will become the major determinant in supplier selection; innovative producers who can provide differentiated products and products that make food processing easier or cheaper are more likely to survive than those who persist in producing traditional products using traditional farming methods. Above all, issues related to the health aspects of food consumption will become increasingly important.

The institutions and enterprises that make up a marketing system are critical components of that system. Three types of marketing organisations are critically important: private enterprise, marketing boards and co-operatives. Historically they have been the principal components of the food and agricultural marketing systems of many developing countries.

Although the formation of co-operatives is often motivated by their potential for protecting small scale business from economic exploitation; stimulating self-reliance and improving the return on investment of economically disadvantaged individuals or groups who constitute the cooperatives, these objectives are often not achieved due to hijacking of cooperatives by political parties, Cooperative, particularly at the primary level are important institutions as governance is of the user members on a one man one vote basis ensuring equity. The management structure of co-operatives, whether these are primary or secondary, has three tiers: the General Body of Members, the Management Committee and the Manager/Secretary. In the case of primary co-operatives all members have equal voting power and members are rewarded in relation to the amount of trade they conduct with, or through co-operatives and not in accordance with the amount of capital which they have invested in co-operatives. Secondary co-operatives, whose members are primary co-operatives sometimes, accord voting power in proportion to the relative size of the primary co-operatives that make up their membership.

The chief weakness of co-operatives is the fact that they operate in marginal economic conditions, they have social as well as economic objectives that are sometimes in conflict with one another. Co-operatives are sometimes used to achieve political ends, which divert them from their legitimate mission and because of very limited resources and lack of status, they experience difficulty in attracting high calibre people to management positions. Still, cooperatives are unique example of partnerships, facilitated by infrastructural support and inputs from governments. Cooperatives can operate modern marketing systems, which integrate a cold chain, alongside the traditional marketing system.

The current market orientation in the country necessitates stronger institutional support mechanisms to facilitate the capacity of the stakeholders in enhancing the competitiveness of the fresh produce and value-added products for the market, which cooperatives are ideally placed to do. In this regard, governments must draw a long-term vision and strategy to integrate all elements of the supply chain to ensure

that production is linked to market demand and opportunities. Since much of the production takes place in the rural sector, emphasis must be placed on fostering agri-business development in rural areas. In this regard, governments must invest in the development of agri-business networks and NCDC, which was set up with this mandate, can play a crucial role in this regard.

5. Development Potential of Sectors funded by NCDC

Although over the years, there has been a substantial infrastructure development in various sectors of the economy that cater to the needs of farmers, either by way of NCDC funding or funding by other FIs, there remains a substantial potential in most sub-sectors of the Agriculture sector as is elaborated below.

5.1 Storage and Warehousing

India, the world's second-largest producer of fruits and vegetables, is throwing away fresh produce worth Rs.13,300 crore every year because of the country's lack of adequate storage facilities and refrigerated transport facilities, according to data compiled in a report by Emerson Climate Technologies India (2013), a US-based manufacturing and technology company.

Storage is an important marketing function, which involves holding and preserving goods from the time they are produced to the point of consumption. From production to consumption, storage ensures a continuous flow of goods in the market and prevents the quality of perishable and semi-perishable products from deterioration.

The holding power that it endows farmers with enables them to obtain better value through staggered marketing. Storage aims at providing the capacity required for buffer and operational stock of food grains to maintain the public distribution system and general warehousing. The broad approach is to provide scientific storage capacity and reduce dependence on the undercover and plinth variety of storage.

India is one of the world's largest producers of fruits and vegetables but nearly 30% of this production is lost due to inadequate cold chain facilities. With a long coastline (mainland) of 3,650 miles, the Indian marine product industry is growing rapidly, but large quantities of marine products are wasted due to lack of storage facilities. Other food segments like dairy products and processed meat also require cold storage facilities. The Agricultural and Processed Food Products Export Development Authority (APEDA), which was established in 1986, has contributed to the development of physical infrastructure, grading and packaging standards, modernisation of packing houses and financial assistance for infrastructure development. The main goal is to curtail wastage of food products, and remove logistic bottlenecks in the food processing industry.

5.1.1 Need for proper storage system

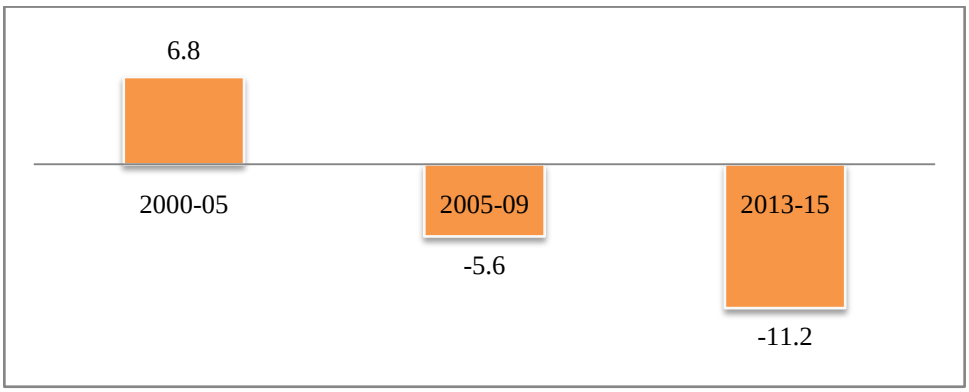
As mentioned earlier, the Indian farming community consists mostly of small and marginal farmers who contribute about 54% of marketed surplus with distress sale by these small farmers accounting for about 50%. Of the surplus, the farmers often sell their produce to square off their debts soon after harvest due to non-availability of storage facilities. The availability of storage facility would, therefore, greatly help these small and marginal farmers to retain their produce to derive the time value through better prices.

5.1.2 Major concerns

It is already noted that the agricultural sector has not experienced the dynamism of growth in India. Further, the National Horticultural Board data shows that the growth of horticulture production is slowing down from 5.5% per annum during the 1990s to 4.5% in 2012-13, 3.2% in 2013-14 and only 1.1% in 2014-15 (first

estimate).The depressing state of foodgrain production is further reflected in the growth of foodgrain procurement with average rate of growth of foodgrain procurement showing what is observed to be a declining trend since 2005.

Figure 5.1: Growth (%) in total procurement of food grains



Source: Ministry of Agriculture and Cooperation.

The low foodgrain procurement substantiates the argument for better and efficient storage and warehousing capabilities. In this context, it would be pertinent to discuss the backdrop of the procurement policy, which emerged from the need to safeguard consumers from food scarcity and price fluctuations triggered by drought, floods and international price movements for exports and imports. This policy in general was directed towards ensuring reasonable food prices for consumers by providing food grains through the Public Distribution System (PDS) and inducing adoption of the new technology for increasing yield by providing a price support mechanism through Minimum Support Price (MSP) system.

MSP, a form of market intervention by the central government and one of the supportive measures (safety nets) provided to the agricultural producers also has a strong linkage to the factor market. In this regard, the important aspects deserving attention, are (i) shielding the farm producers against the unwarranted fluctuations in prices, which may be provoked by, among others, international price variations (ii) creation of an incentive structure for as well as a signal to farm producers to direct the allocation of resources towards desired crops and (iii) insulating consumers' against sharp price rise, which may have been created by monsoon failure or even by vested interests by creating artificial scarcity. The focus is to create value addition for the cultivators as well as the consumers. Therefore, it is necessary to consider some policy alternatives and view the effectiveness of MSP as an instrument in this background.

Procurement of food grains at MSP is carried out by Food Corporation of India (FCI). FCI, however, operates in selected states/districts which had surplus food grains initially. In the current situation, several other states which have had deficit earlier have started getting surplus. Farmers in these states are deprived of the benefit of MSP. Market prices in some mandies fall below MSP. Thus, there is a need to extend effective procurement operations in other states to ensure MSP to farmers. This will also reduce transportation cost of operating the PDS. Besides, it was felt that by encouraging the states to take up procurement operations, the benefits of MSP through cooperative action can accrue to farmers throughout the country. Investment in agrarian infrastructure by way of extending storage capabilities would help capital formation and productivity. The positive association between capital

formation and agricultural productivity as well as agricultural output growth is well documented in the existing literature[3] .

In the light of various studies, it is evident that storage is not only an important part of infrastructure, but has a sizeable influence in determining the terms of trade for agriculture. In view of the low levels of capital formation in the sector in the recent past, and the need to significantly step up investment in support of agricultural development, cooperatives having huge potential to significantly mop up investment in storage to enhance the flow of capital formation and efficiency of the sector need to be utilised.

5.1.3 Way Forward

Storage has to play a dominant role if agricultural market mechanisms are to be upgraded for benefits to poor farmers. However, so far, scientific storage systems have remained subdued in the options aimed at extending agricultural productivity. There are also instances when huge investment made in infrastructure in some areas ceases to serve its purpose due to the lack of its maintenance. This needs to be tackled so as to improve efficacy of public investment in agriculture ensuring so that it serves the purpose for which it is created. In this respect, institutional recognition of the need for easier credit and fiscal incentives can give the much-needed impetus to investment in storage and warehousing in India, especially through cooperatives.

5.2 Fisheries

India is the second-largest producer of fish in the world, contributing about 6% of the global fish production. The total fish production during 2016-17 is at 9.6 million tonnes.

People who are engaged in fisheries for their livelihood are mostly from socially and economically backward sections of the society. Fisheries in India has generated employment opportunities for about 6 million persons with approximately 10,363 registered fishery societies in the country. This sector also generates huge capital inflows, mainly from exports, resulting in foreign exchange reserves amounting to $3.5 billion in earnings. There has been an increase in the catch/production of marine products from 0.75 million tonnes (1950-51) to about 9.6 million tonnes (2012-13).

Despite having good potential in fisheries, the fishers are not able to improve their socio-economic condition due to lack of institutional support like infrastructure and finance. Cooperatives seem to be the most appropriate organisation to improve the socio-economic status of fishers in the country and spare them from exploitation by middlemen. Efforts made by cooperatives have shown positive results in some areas, but the overall picture of fishery cooperatives is not up to the mark.

The fishery cooperative system in India was organised with a view to provide financial assistance to fishermen. Its structure in India comprises a primary cooperative for a village, a district or regional federation, and a state level cooperative federation. At all these levels there remains a high magnitude of unfulfilled cooperative demand for the following infrastructural components, which needs to be met. They are:

[3] S. Bisaliah & S. Mahendra Dev (2010): Private Capital Formation in Indian Agriculture: An Analysis of Farm-level Data, FAO

- Purchase of operational inputs such as fishing boats, nets and engines.
- Development of infrastructure facilities for marketing, transport vehicles, cold storages, retail outlets etc.
- Establishment of processing units including ice plants, cold storages etc.
- Development of inland fisheries, seed farms hatcheries etc.
- Preparations of feasibility reports
- Appointment of experts under Technical & Promotional Cell Scheme
- Integrated Fisheries Projects (Marine, Inland & Brackish Water)

5.3 Dairy and Livestock

India has the largest livestock population in the world. It accounts for about 57.3% of the world's buffalo population and 14.7% of the cattle population (Source: Annual Report 2012-13, Department of Animal Husbandry, Dairying & Fisheries under the Ministry of Agriculture). The livestock sector contributed about 3.9% of total Gross Value added at constant prices (2011-12). The National Livestock Mission was launched in 2014-15 with a sanctioned amount of Rs.2,800 crore during 12th five year Plan.

The value of milk output was Rs.3,05,484 crore in 2011-12. The annual estimated production of milk is 133 million tonnes during 2012-13 and is expected to reach 180 million tonnes by 2020. Thus, there is a great scope for increasing milk production. through assistance to primary, district and state-level dairy cooperatives for establishment, expansion and maintenance of milk collection centres, chilling plants, purchase of milk collection equipment, transport vehicles, establishment of feed manufacturing units and integrated dairy development projects through working capital, margin money, share capital assistance.etc . Purchase, rearing and breeding of milch animals is also another area that calls for funding and can provide dividends.

Dairy products have become one of the major sources of income for the country. The livestock share in the agricultural GDP was 3.46% as of 2011-12. The share of dairy in the agricultural GDP is almost similar. The total export earning generated from the livestock sector amounts to Rs.33,417 crore as of 2011-12.

The per capita availability of milk is around 307 grams per day in 2013-14. (Source: Annual Report 2014-15, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India).Around 70 million rural households are engaged in the production of milk, most of these households are small and marginal farmers and even landless. Dairy cooperatives promote women employment. Under the National Dairy Plan, measures are taken to increase the productivity of milch animals through scientific breeding and nutrition would result in increased milk production which would meet the rapidly growing demand of milk. To achieve this, it would be essential to ensure that this increased milk quantity is duly tapped by the dairy cooperatives through quality milk procurement system there by providing the rural milk producers greater access to the organized milk processing sector.

Strengthening of the village-based milk procurement systems could be carried out through dairy cooperatives by funding:

- Expansion and setting up of village-based milk procurement systems to collect milk in a fair and transparent manner and ensuring timely payments.

- Strengthening dairy cooperatives to put in place village-level infrastructure for milk weighing, testing, collection and milk cooling.
- Providing support for creating institutional structures

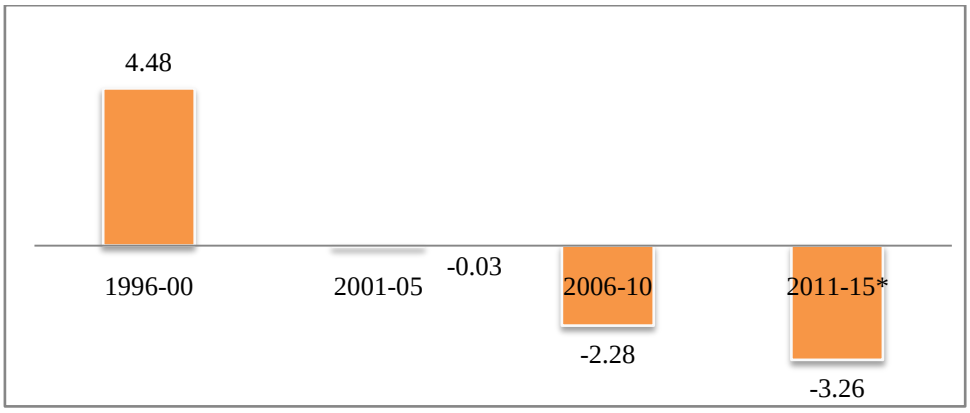
5.4 Jute Products

The jute industry has an important place in the Indian economy. Raw jute which is mainly produced in West Bengal, Bihar, Assam and Odisha, is a very important cash crop generating employment as it is labour-intensive. Cultivation of raw jute crop provides not only fibre, which has industrial use, but jute stick which is used as fuel and building material by the farming community.

There are about 84 jute mills in India. Jute mills are mostly located in West Bengal and Assam, but some also exist in states like Andhra Pradesh, Uttar Pradesh, Bihar, Odisha, Tripura and Chhattisgarh. The total turnover of the jute industry is about Rs.6,500 crore and the annual revenue generated from exports in more than Rs.2,000 crore. The country exports about 20,000 tonnes of jute aboard annually. An important fact about the jute industry is that the Minimum Support Price, or MSP, set up by the government acts as a big assistance towards the sector.

Despite the varied assistance provided to the jute industry, the consumption of jute products is decreasing. As may be seen in Figure 6.1, the average growth enjoyed even in the last decade of the twentieth century has receded into negative territory in the first decade of the 21st century. Given the serious environmental concern about bio-degradability of packaging, jute requires a quantum boost in its consumption. Cooperatives can play an important role in this regard not only through spreading awareness, but also organising an increase in the scale of production.

Figure 5.2: Growth of domestic consumption of jute goods in India



Source: http://www.indiastat.com/table/industries/18/jute/147/9017/data.aspx.

5.5 Handloom

The handloom sector occupies a very important and distinct place in the Indian economy. It is the largest generator of non-farm rural employment. According to the Third National Handloom Census 2009-2010, there are around 43.31 lakh handloom weavers in India (NCAER Report Third Handloom Census of Weavers and Allied Workers, sponsored by Ministry of Textiles, Government of India, 2009-10). The handloom industry is labour-intensive and the population engaged in this occupation are mostly household labour. It is widespread across thousands of villages and towns

in the country. The total exports were $372 million in 2012-13. (Source: The Handloom Export Promotion Council).

The handloom market is a niche market and can be well exploited for exports.It must be seriously supported as it can be an employment boosting sector at the same time prseving India's rich cultural heritage of a wide range of weaves and vibrant hues and designs.

5.6 Sericulture

Sericulture in India has been prominent since the era of the silk route; India is the only country that is currently producing all five commercially available silk types, viz. mulberry, tropical tasar, oak tasar, eri and muga. The climatic condition and the initial discovery of all these varieties of silk in India make the country one of the largest exporters of silk after China. In the past six decades, the country has witnessed impressive growth in the sericulture sector employing approximately 7.65 million people in rural and semi-rural areas of the country.

Sericulture is the cultivation of silk through rearing silkworm. It is an agro-based industry and has a great potential to generate employment, especially in rural areas. Sericulture can be practised even with very low land holding. It has a low gestation period but the return from it is high and that's why it is considered as one of the most suitable programmes for the weaker sections of the community.

Karnataka, Andhra Pradesh, West Bengal, Tamil Nadu and Jammu & Kashmir are the traditional states involved in the sericulture activity. Apart from these, 12 states have started this activity under the World Bank aided National Sericulture Project (NSP), viz. Kerala, Maharashtra, Gujarat, Madhya Pradesh, Uttar Pradesh, Bihar, Rajasthan, Punjab, Haryana, Assam, Himachal Pradesh and Odisha with a rich potential for development and employment generating growth.

5.7 Coir

Coir is a product that is extracted from the protective husk of the coconut. Coir is used in making floor mats, door mats, brushes etc. apart from this it is also used in making string, rope and fish nets. There are primarily two different ways in which we can classify coir – a) black coir and b) white coir. The former is a stronger form whereas the latter is a weaker form of coir. Given the above introduction, we can say that India comes under the few countries where coir is both produced and processed into finished products. Apart from India, countries like Mexico, Vietnam and certain Caribbean countries produce coir. Total production of coir globally is approximately 35,000 million tonnes. Out of the total global production, Sri Lanka and India contribute about 90%.

Coir has a huge export potential and with low investment can provide employment particularly to the rural people. The total export of coir and coir products was approximately Rs.1426 crore as of 2013-14 and witnessed a growth of 30% as compared to 28% in the previous year.

This industry is highly labour-intensive but the productivity levels are low. The average earning of the workers is not enough even to meet their basic needs. In recent years, a rise in the cost of production has been noticed which has resulted in the increase of cost of production, without any simultaneous increase in productivity. However, it encourages women by providing them greater employment opportunities

and constitute about 80% of the workforce. Kerala is dominating the production scenario of the coir industry in India.

5.8 Poultry

Poultry is a very important subsidiary activity in rural areas, especially for the landless and weaker sections of the rural community. NCDC has been providing assistance to poultry cooperatives since 1974-75 with a view to strengthen the poultry farming and thereby improving the condition of the poor. It may be noted that poultry is among the fastest growing segments of the agricultural sector in India. In comparison to the agricultural crops growing at a rate of 1.5% to 2%, eggs and broiler production has been rising at a rate of 8% to 10% per annum.

India is now the fifth-largest egg producer and the eighteenth largest producer of broilers in the world. Growth in per capita income, a rising urban population with an expanding middle class has contributed to its growth together with the emergence of vertically integrated poultry production that has reduced consumer prices by lowering production and marketing costs. Overall, Tamil Nadu accounts for maximum egg production. In Andhra Pradesh, Hyderabad has the maximum in number of poultry and hatcheries. In addition to Andhra Pradesh, Karnataka, Tamil Nadu, Maharashtra, Gujarat, Madhya Pradesh, Odisha and North-EasternStates are the major egg contributors.

Cooperative demand exists for the following poultry activities:

- Establishment of cluster of poultry units with rearing capacity ranging from 5,000 and more for each unit with low input technology birds as well as hybrid variety birds with the provision for selling pullets to member farmers for backyard poultry farming.
- Assistance for incubators, hatcheries and accessories for providing Day Old Chicks to societies engaged in poultry activities
- Assistance for the marketing of poultry products by involving producer members;
- Training to the members of cooperative societies.
- Expansion of existing capacity.

5.9 Why Cooperatives? Potential and the Need for Funding

The above sections have outlined the importance and need of cooperative action in various activities that are pertinent and indeed imperative if development is to benefit the small and marginal farmers.

It is important here to examine the reasons for the cooperative choice as a model for rural development and inclusive growth and for its being given its place as a third sector of economy at the beginning of the planning process.

There are various arguments for the cooperative model of growth, which has the additional advantage of being “inclusive” in its impact and of carrying along the weak and marginalised ends of the segment.

The internationally accepted definition of cooperatives is a pointer to its moral advantage as an organization. That it is an autonomous, voluntary, joint and democratic attempt to meet common needs implies that by definition, although it

may seem tautological, any other form of organization would, therefore, fall short in this regard. Certainly the values of self help, self-responsibility, democracy, equality, equity and solidarity are unique to cooperatives unlike other organizational forms, where the organization and its ₹owners' are distanced from each other.

People centered rather than capital controlled, cooperatives hence act in the interest of their members who are users of the business. Intended to service common interests, they accordingly design products and services to suit member interests and needs. An effective ginning co-operative for instance will design its services for promoting the prosperity of members as cotton farmers, rather than be concerned about securing the most economical supplies whatever the source as a conventional firm will be wont to do. This might necessitate the provision of inputs and extension services, all of which add to the cooperative costs and may, if not taken into account, result in alleged inefficiency when compared with privately owned gins, which do not have these moral or economic compulsions to their suppliers and who are concerned with garnering supplies at the minimum costs.

The priority given to the broader needs of the local community, a cooperative principle, is also likely to build upon the co-operative advantage differential through enlisting the trust and loyalty of the community.

While the cited are emotive versions of differences in the two forms and are open to be decried as "value judgments", the Transaction Cost school of thought stakes claim to cooperative advantage rooted in hard business terms on account of the cooperative contractual – institutional design. This determines alliances with various stakeholders, and in turn, transaction costs, inevitably incurred in a world of non-perfect markets in the process of information gathering, negotiation and enforcement of contracts. Transaction costs would be zero if markets were to be perfect and returns to factors of production would be the same no matter the form of the organization i.e. cooperative or Investor Oriented Firm (IOF). Hence the raison d'etre of cooperative organizations arises in a world of imperfections, also explaining why cooperatives are most likely to be successful when formed of people who are most subject to market imperfections.

Their linkages with and pooling of resources of members and user ownership in contrast to the vendor relationship of all factors vis-à-vis IOF enables cooperatives to hedge against opportunistic behavior of trading partners and brings synonymy between individual and institutional objectives.

Also, investment in assets otherwise hindered by the asset-specificity problem is made possible through membership in a cooperative and this can substantially reduce implied transaction costs.

While in relative terms of return to investment/equity, cooperatives are generally regarded as less efficient than other private enterprises, this is countered by the argument of advantages to members in terms of services rendered, both economic (higher prices for products and lower prices for inputs) and welfare (health, education, transport services) etc. which offsets a purist definition of efficiency.

It is in democratic functioning that cooperatives most definitely have advantage, since individual members can directly take decisions on various aspects that maximize their own profits rather than those of the cooperative. Through their joint action of raising prices of products, lowering input prices, reducing costs at various levels, distribution to members of net operational savings and upgrading quality, member incomes are increased.

On a one to one basis, cooperatives can encourage production oriented to current market requirements by developing producer plans based on market specifications or timed to allow rationalized operations (as happens in Maharashtra sugar cooperatives which pre-decide the sowing/harvesting to ensure efficient operations). They can provide services that are either not available or are improved and push closer to the competitive norm through non-profit and service-at-cost principle. Specified grade pooling can help meet needs of large scale buyers.

A collective action perspective on cooperatives throws up the general condition that cooperative advantage can be considered to be at its best, inevitably when the cost of collective inaction is greater than the sum total of internal and external costs of organizing collective action.

Apart from the institutional advantages of cooperatives, there is the advantage from the point of view of its members and human resources, which to some extent is included in the institutional form itself. In fact, it is the humane angle of a cooperative form that gives to the members a voice, particularly the marginalized, which distinguishes it and which is its true forte. Cooperative principles dictate that human resource development through member education and training should be a continuous process and the emphasis placed on member development indeed gives the cooperative a vantage point.

Finally, Cooperatives are ethical businesses, emphasizing transparency, openness and honesty. These values, if branded and publicized are certain to impart a competitive edge over others in doing business.

Cooperative action was seen , and rightfully so as the above theoretical reasoning shows, as the way for taking the small and marginal farmers forward and informed all policy decisions and programmes during the early plans. The importance of ensuring opportunities for post-harvest value addition for producers at the marginal end of the scale led to the formation of a statutory corporation i.e. the NCDC, set up for this purpose, under an Act of Parliament in 1963.

NCDC is a development financing institution for the cooperative sector in the country. A major objective of the Corporation is to promote, strengthen and develop farmers' cooperatives for increasing production and productivity and instituting post-harvest facilities. The Corporation's focus is on programmes of agricultural inputs, processing, storage and marketing of agriculture produce and supply of consumer goods in rural areas. In the non-farm sector of the rural economy, the Corporation's endeavour is to equip cooperatives with facilities to promote income generating activities, with special focus on weaker sections such as handlooms, sericulture, poultry, fishery, scheduled caste & scheduled tribe cooperatives etc. Over time, the Corporations' activities have gradually been evolving to cover most activities of the economy, farm and non farm, rural & urban including the service sector.

Along with its evolution over time in terms of the widening of its activity range, NCDC's funding of cooperative activities has steadily grown in magnitude over the past 73 years of its existence. From Rs.2.36 crore in 1962-63, its funding has reached Rs.15913.50 crore in 2016-17.

NCDC's schematic lending covers a complete range of activities from funding feasibility studies, margin money for projects, term loan for infrastructural funding, margin money for working capital and working capital requirements, managerial assistance through T&P Cell, training, computerisation, bridge loans, maintenance and repair of existing facilities and so on. The aim is to meet the end to end project needs of the cooperative clients, for which newer and better terms and schemes are continually being drawn up.

The schematic funding can be broadly categorised as (a) Centrally Sponsored / Sector Schemes and (b) Corporation Sponsored Schemes. The former provides grants assistance through budgetary provisions under selected heads for subsidising certain specified components under specified programmes in specified locations which helps increase the viability of NCDC's term loaning which accompanies the subsidy component.

6. NCDC Schematic Assistance

A. Central Sector/Centrally Sponsored Schemes

I. Central Sector Integrated Scheme of Agricultural Cooperation

The Scheme has three Components covering several activities, target groups and also addresses the aspects containing regional disparities.

The main objectives of the scheme are to provide financial assistance for improving the economic conditions of cooperatives, removing regional imbalances and speeding up cooperative development in agricultural and allied sectors, helping cotton growers to fetch remunerative prices for their produce through value addition besides ensuring supply of quality yarn at reasonable rates to the decentralized weavers, overall development of selected districts in the country through cooperative efforts in agriculture and allied sectors and assisting National Level Cooperative Federations/ Multi State Cooperative Societies (MSCS) in the agriculture and allied sectors to undertake promotional and skill development activities.

Components of the Scheme

Financial assistance is provided to the following NCDC Programmes for Development of Cooperatives:

i) **Marketing, Processing, Storage, Consumer, Weaker Section Programmes of Cooperatives, Computerization of Primary Agricultural Cooperative Credit Societies (PACS), District Central Cooperative Banks (DCBs), State Cooperative Banks (SCBs) and Technical & Promotional (T&P) Cell Scheme for strengthening Management of State Cooperative Federations [subsidy on tapering basis].**

   Financial assistance is provided under this component for improving the economic conditions of cooperatives, to remove regional imbalances and to speed up cooperative development in agricultural marketing, processing, storage, computerization and weaker section programmes. The government provides assistance to NCDC for financing the activities under agro and allied sector for processing, marketing, storage and input supply, development of weaker sections cooperatives such as tribal cooperatives, dairy, poultry, livestock, fisheries, handloom, coir, jute, sericulture cooperatives etc., T&P Cell and computerization of cooperatives.

ii) **Assistance for cotton development including ginning and pressing and establishment of new and modernization/expansion/ rehabilitation of existing cooperative spinning mills.**

   The basis objective of the scheme is to help cotton growers to fetch remunerative prices for their produce through value addition, besides ensuring supply of quality yarn and reasonable rates to the decentralized Weavers. Under this component, financial assistance is provided to the cooperative spinning mills for share capital participation, modernization/

expansion of existing mills, rehabilitation of sick cooperative spinning mills, margin money assistance to cooperative spinning mills and State Cotton Federations, besides for setting up of new and modernisation of existing cotton ginning and pressing units.

iii) Integrated Cooperative Development Projects in selected districts (ICDP).

This scheme aims to promote overall development of selected districts in the country through cooperative efforts in agriculture and allied sectors including fisheries, poultry, handloom and rural industries etc.; strengthen cooperative networks; promote business development plans by forging effective linkage with credit and other institutional structures in the area; develop PACS as multi-purpose entities and modernization of management of Cooperatives.

The scheme is approved for its implementation in all parts of the country covering all States and UnionTerritories (UTs).

II. Agricultural Marketing Infrastructure (AMI) sub scheme of Central Sector Integrated Scheme on Agriculture Marketing (CSISAM) for Storage and Infrastructure –

III. Other Central Schemes:

a) Rashtriya Krishi Vikas Yojana (Training) - DAC&FW, MOA&FW.

b) Mission for Integrated Development of Horticulture (MIDH) - DAC&FW, MOA&FW.

c) Scheme for Cold Chain, Value Addition and Preservation Infrastructure - Ministry of Food Processing.

d) Interest rebate under Technology Up gradation Fund - Ministry of Textile.

e) Sugar Development Fund –Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution.

f) Assistance for Boosting Seed Production component under Sub-Mission for Seed and Planting Material (SMSP) of National Mission on Agricultural Extension and Technology (NMAET).

B. NCDC Sponsored Schemes

ACTIVITIES ASSISTED

a) Marketing

- Margin Money /Working capital assistance
- Strengthening share capital base of primary / district marketing societies
- Purchase of furniture and fixtures, transport vehicles including refrigerated vans
- Development / Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization

b) Processing

- Setting up of new sugar factories (Investment Loan)
- Modernisation and Expansion / Diversification of existing Sugar Factories (Investment loan + term loan)
- Establishment of new / modernization /expansion / rehabilitation of existing spinning mills
- Modernization of existing and establishment of modern cotton ginning & pressing units
- Small /medium scale agro & allied sector processing units, pre/post loom processing/ garment & knitting units
- Cotton Development Programme
- Setting up of other Processing units, such as: Foodgrains/ Oilseeds / Plantation Crops / Fruits & Vegetables / Maize Starch / Particle Board etc.
- Margin money /Working capital assistance
- Share capital participation in new spinning mills

c) Storage & Cold Storage

- Construction of godowns and repair / renovation of existing godowns
- Construction of Cold Storages / expansion / modernization / rehabilitation of cold storages
- Margin money / Working capital assistance

d) Distribution of essential consumer articles through cooperatives

- Establishment of infrastructure such as shopping centre, diesel, Kerosene bunk /warehouse / new / expansion / modernization of wholesale consumer cooperative store / departmental consumer cooperative store / consumer federation
- Purchase of transport vehicles including refrigerated vans for distribution of consumer articles
- Margin money / Working capital assistance

e) Industrial / Notified Services

- All types of Industrial Cooperatives, Cottage & Village Industries, Handicrafts / rural crafts, etc.

f) Credit & Service Cooperatives

- Agriculture Credit / Agriculture Insurance
- Water Conservation works / services
- Irrigation, micro irrigation in rural areas
- Animal care / health /disease prevention
- Rural Sanitation, Drainage, Sewage system through Cooperatives
- Tourism, Hospitality, Transport
- Generation & Distribution of power by New, Non Conventional & Renewable sources of energy
- Rural Housing
- Hospital / Health Care and Education

g) Agricultural Services

- Cooperative Farmers' Service Centers
- Agro Service Centers for Custom Hiring
- Establishment of Agricultural inputs manufacturing and allied units
- Irrigation / water harvesting programmes

h) District Plan Schemes

- Integrated Cooperative Development Projects in selected districts

i) Cooperatives for Weaker Sections

- Fisheries, Dairy & Livestock, Poultry, Schedule Caste, Tribal Cooperatives, Handloom, Coir, Jute, Sericulture, Women, Hill area, Tobacco & Labour

j) Assistance for Computerisation of Cooperatives

- Assistance is provided for purchase / installation of computers / computerisation including hardware, software, networking, site preparation, manpower, training etc.

k) Promotional and Developmental programmes

- Technical & Promotional Cells
- Consultancy for studies/project reports, management studies, market survey & evaluation of programmes, etc.
- Corporate Social Responsibility.

The details of the Schemes may be seen at **Appendix G**.

The above brief factual rendering of the Schemes of NCDC for catering to the needs of farmer cooperatives shows that the NCDC can fund and has been funding a wide range of cooperative activities. With the existence of a large infrastructure gap as has been earlier shown, the possibility of NCDC scaling up its Funding needs support and encouragement.

7. Potential of Cooperatives to absorb Flow of Fund in the Sector

While considering the case for supporting NCDC to enable it to upscale it's financing of the cooperative system, it would be worthwhile to examine the fund absorption capacity of the cooperative sector.

The fund absorption capacity of cooperatives depends on the nature of their activities as well as their scales of operation. An onstream cooperative would expectedly have a steady flow of funds, usually balancing with its routine expenditure requirements, which determines the extent of its absorption capacity. This capacity increases under several circumstances, such as:

- Increasing market demand, requiring more production/increased volume of business transactions.
- Technological change/innovation, raising production capacity of the cooperatives, requiring enhanced fund flows including those for fixed capital investment.
- Skill development of members, including office bearers (managerial efficiency) to raise handling capacity, thereby requiring more funds to be absorbed.
- New avenues and opportunities for business, such as new products or locating new markets, requiring substantial fund for operation.

All these trajectories demonstrate the potential of the cooperative sector to be able to substantially raise production capacity, product diversity and to absorb additional flow of funds. To illustrate, a micro-example based on our field-based observations is that of Arunachal Pradesh, a rich Kiwi growing State, where due to the lack of appropriate marketing, storage, transporting and processing facilities, Kiwi is sold at throwaway prices in the local market, whereas in cities like Delhi and other metros, it is sold at Rs.20–25 per piece. Cooperatives can be a potent organisation in this case for enabling value addition from production to storage, marketing distribution throughout the country. The cooperative sector would, however, require substantial funds for this activity.

A recent study by the NCAER noted that as many as 19% of the fair price shops (FPS) under the public distribution system are maintained and operated by cooperatives in the country and this can be substantially enhanced. The study also shows that cooperatives have high funds absorption capacity and capability to operate in the remotest part of the country.

ASI data on the factory sector shows that registered factories under cooperatives have grown substantially over the last decade. Output value of the cooperative factories increased from Rs.286 billion in 2004-05 to Rs.668 billion in 2009-10 and further to Rs.929 billion in 2011-12, at current prices. Such high growth reflects the obvious capacity of the cooperative manufacturing sector to absorb flow of funds to the sector. In fact, the sector needs considerably greater funding in the near future not only for expansion but also for its modernisation.

The Industry-wise growth rates of cooperatives for the periods 2005-10 and 2010-12 are shown in Table 11.1. It may be observed that new and emerging industries like confectionery, processed food products, noodles, other food products and carbonated soft drinks made a rapid growth under cooperatives during 2010-12. However,

despite the immense possibilities of the sector, cooperatives failed to make any progress in processing and preservation of fruits and vegetables. (Table 7.1).

Table 7.1: Growth (%) of Cooperative Agro-Processing Units in the Value of Output by the Registered Factories at 4-Digit level

NIC Description	CAGR of the output value of the cooperatives and all (2010-12)		CAGR of the output value of the cooperatives and all (2005-10)	
	Cooperative Factories	All	Cooperative Factories	All
Meat processing		24.9		26.0
Processing of fish etc.		33.6		9.8
Processing of fruit and vegetables	-22.7	23.2	19.5	25.4
Vegetable and animal oils and fats	7.9	45.8	44.0	13.6
Dairy products	19.5	29.7	19.5	17.1
Grain mill products	-51.1	22.4	7.6	17.7
Starch & products	-15.6	28.0	-0.3	27.3
Bakery products	-13.4	9.9	-51.4	19.6
Sugar	14.9	18.9	23.1	19.6
Cocoa, chocolate & confectionery	30.0	52.1	19.0	21.2
Macaroni, noodles, couscous etc.	1272.6	29.4		122.7
Prepared meals and dishes		-24.3		
Other food products n.e.c.	35.7	19.2		
Prepared animal feeds	9.8	41.4	21.3	13.3
Spirits; ethyl alcohol etc.	36.2	33.2		
Manufacture of wines		-4.0		10.2
Malt liquors and malt		26.8		22.2
Soft drinks & bottled waters	996.4	23.1	-19.4	17.4
Tobacco products	-51.6	14.3	21.2	12.6
Spinning of textile fibres	3.6	19.8		
Weaving of textiles	-25.8	37.8		
Finishing of textiles	-32.8	22.8		
Knitted and crocheted fabrics		34.4		-9.4
Textile articles, except apparel	-27.5	20.0	60.9	22.0
Carpets and rugs	-56.3	6.1	-28.9	7.9
Cordage, rope, twine and netting	338.5	27.2	-42.3	19.2
Manufacture of other textiles n.e.c.	-43.1	8.2	-21.2	27.2
Tanning of leather and dyeing		20.4		14.8
Luggage, handbags etc.	4.3	11.4		16.3
Manufacture of footwear		8.8		19.1
Saw milling and wood		17.0		10.2
Veneer sheets, plywood etc.		16.3		
Builders' carpentry and joinery	-88.6	3.4		
Wooden containers	55.9	86.3	10.4	20.5
Other wood products, etc.		11.0		52.1
Pulp, paper and paperboard	-52.2	17.3		
Corrugated paper, etc.		21.3		22.1
Other articles of paper	-91.3	36.1	265.8	41.5
Rubber tyres and tubes, etc.		21.5		
Other rubber products	-31.6	32.8	45.6	17.4
Non-agro processing	22.7	22.6	11.4	18.8
Total	17.9	23.3	18.5	18.0

Note: Output value of the cooperative factories increased from Rs.286 billion in 2004-05 to Rs.668 billion in 2009-10 and further to Rs. 929 billion in 2011-12.

Source: Annual Survey of Industries (2011-12).

Some of the four-digit industry that showed a significant presence of cooperatives in terms of share in the total value of output are meat processing, dairy, sugar, confectionery, prepared animal feed, spirits and alcohol, soft drinks and other food products. Wooden containers also have more than 1% of the share in 2011-12. In all

these industries, cooperatives have a great potential to grow, which is an indicator of the need of additional funding.

Table 7.2: Percentage Share of Cooperatives in the Value of Products (& By-Products) of the Total Registered Factories at 4-digit Industry Level

NIC Description (abridged)	NIC Code	2004-05	2009-10	2011-12
Dairy products	1050	46.44	51.32	43.55
Sugar	1072	34.66	40.06	37.38
Prepared animal feeds	1080	11.26	15.77	9.51
Soft drinks & bottled waters	1104	0.69	0.11	8.36
Spirits; ethyl alcohol etc.	1101		3.01	3.15
Meat processing & preservation	1010	0.00	0.00	2.44
Spinning of textile fibres	1311		2.19	1.64
Other food products n.e.c.	1079		0.98	1.27
Cocoa, chocolate & confectionery	1073	1.76	1.61	1.18
Wooden containers	1623	2.51	1.62	1.13
Other rubber products	2219	1.02	2.97	0.79
Vegetable and animal oils and fats	1040	0.36	1.19	0.65
Starch & products	1062	4.78	1.41	0.61
Macaroni, noodles, couscous etc.	1074	0.00	0.00	0.38
Finishing of textiles	1313		1.16	0.35
Cordage, rope, twine and netting	1394	0.68	0.02	0.21
Processing of fruit and vegetables	1030	0.46	0.36	0.14
Grain mill products	1061	0.73	0.46	0.07
Weaving of textiles	1312		0.23	0.07
Tobacco products	1200	0.20	0.30	0.05
Textile articles, except apparel	1392	0.03	0.14	0.05
Manufacture of other textiles n.e.c.	1399	1.47	0.13	0.04
Builders' carpentry and joinery	1622		1.37	0.02
Carpets and rugs	1393	0.74	0.09	0.02
Luggage, handbags etc.	1512	0.00	0.01	0.01
Bakery products	1071	0.87	0.01	0.01
Manufacture of knitted and crocheted fabrics	1391	0.00	0.00	0.00
Manufacture of pulp, paper and paperboard	1701		0.01	0.00
Other articles of paper	1709	0.00	0.25	0.00
Processing of fish etc.	1020	0.00	1.36	0.00
Prepared meals and dishes	1075		0.00	0.00
Manufacture of wines	1102	0.01	0.41	0.00
Malt liquors and malt	1103	0.00	0.00	0.00
Tanning of leather and dyeing	1511	0.02	0.00	0.00
Manufacture of footwear	1520	0.00	0.00	0.00
Saw milling and planing of wood	1610	0.09	0.00	0.00
Veneer sheets, plywood etc.	1621		0.04	0.00
Other wood products, etc.	1629	0.00	0.00	0.00
Corrugated paper, etc.	1702	0.13	0.00	0.00
Rubber tyres and tubes, etc.	2211		0.00	0.00
Non-agro processing	9999	0.67	0.49	0.49
Total	Total	1.98	2.02	1.84

Source: Annual Survey of Industries (unit level data extracted for various years).

In this respect, it may be mentioned that there are substantial inter-state variations in the fund absorption capacity of cooperatives. States like Kerala have an efficient district cooperative banking system to support and augment capacity. The situation however is not ripe in some of the Northern states. Also, banks themselves are constrained to extend loans in view of the norms linked to Non-Performing Assets (NPA).However, it is not appropriate to generalise and in any case funding would have to be on a case to case basis, keeping the merits of each case in view.

8. A Comparative Study of Funding by NCDC, NABARD & Commercial Banks in Post-harvest Operations i.e., Cost of Capital to NCDC vis-à-vis NABARD and Commercial Banks

The Cooperatives, as other private projects, source their borrowed funds from Commercial Banks in addition to their traditional dependence on NCDC and NABARD. It is pertinent to examine the role played by these institutions in funding cooperatives and their comparative penetration.

In terms of share of funding of post-harvest operations, the following comparative statement on funding by NCDC, NABARD and commercial banks for the years 2007-08 to 2013-14 reveals that the cumulative percentage share of NCDC funding in post-harvest operations is as high as 47.9%, whereas in respect of NABARD it is 26.5% and in the case of Scheduled Commercial Banks (SCBs) it is just 18.4 % (Table 8.1).

Table 8.1: Funding by NCDC, NABARD and SCBs of Post-harvest Operations

Years	NCDC	NCDC	NABARD	NABARD	SCB	SCB
	Post-harvest operations*	Grand Total	Post-harvest operations **	Total	Agro-processing Industries ***	All Industries
2007-08	56.4	100.0	24.5	100.0	21.6	100.0
2008-09	61.2	100.0	35.2	100.0	19.4	100.0
2009-10	59.6	100.0	30.5	100.0	18.6	100.0
2010-11	31.0	100.0	22.3	100.0	18.4	100.0
2011-12	38.2	100.0	24.2	100.0	17.4	100.0
2012-13	52.8	100.0	28.5	100.0	17.6	100.0
2013-14	46.9	100.0	23.4	100.0	18.2	100.0
Cumulative	47.9	100.0	26.5	100.0	18.4	100.0

*NCDC activity wise sanction in post-harvest operations include consumer, sugar, cold storage, fruits & vegetables , storage, textile, food grain, coir, power loom, marketing, oilseed and handloom.

**NABARD purpose wise disbursement of refinance in post-harvest operations include land development, storage & market yard and self-help groups.

*** Scheduled commercial banks deployment of gross bank credit in agro-processing industries include sugar, edible oils & vanaspati, tea, beverages & tobacco, textiles, leather & products, wood & products, paper and products & rubber plastic and their products.

In the composition of NCDC funding in post-harvest operations, the share of marketing is the highest at 29.1% followed by sugar 14.16%. The percentage share of other items varies from less than one percent to 1.85% (Table8.2). NCDC total funding for credit for post-harvest operations and allied activities in agriculture (dairy, poultry, and fisheries) accounts for 53.14%.

Table 8.2: NCDC: Activity-wise sanction during the period 2001-02 to 2014-15 (% share)

Sl. No.	Items	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Consumer	0.12	0.30	1.02	0.33	0.03	0.10	0.67	0.37
2.	Sugar	11.72	23.76	10.40	10.55	20.01	15.99	8.20	14.16
3.	Cold Storage	0.17	0.05	0.09	0.17	0.02	0.01	0.03	0.07
4.	Fruits & Vegetables	0.17	0.14	0.13	0.03	0.02	0.22	0.03	0.10
5.	Storage	0.63	0.39	0.67	0.99	0.80	1.18	1.27	0.91
6.	Textile	2.34	6.35	2.16	0.91	0.75	1.94	0.54	1.85
7.	Foodgrain	0.20	0.52	0.03	0.01	0.08	0.36	0.00	0.16
8.	Coir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9.	Powerloom	0.07	0.00	0.10	0.02	0.11	0.00	2.38	0.49
10.	Marketing	38.82	29.58	44.74	17.95	15.65	33.01	31.85	29.10
11.	Oilseed	0.00	0.00	0.00	0.02	0.02	0.00	0.02	0.01
12	Handloom	2.17	0.14	0.23	0.03	0.75	0.01	1.95	0.73
I.	Post-harvest operations	56.43	61.22	59.58	31.03	38.24	52.83	46.95	47.94
13.	Fisheries	1.68	3.53	2.47	1.64	1.32	1.63	0.96	1.76
14.	Dairy & Live Stock	0.89	0.76	1.54	1.96	1.03	5.53	8.37	3.35
15.	Poultry	0.25	0.03	0.00	0.00	0.26	0.00	0.08	0.08
II.	Animal husbandry & fishery	2.83	4.32	4.01	3.60	2.61	7.16	9.42	5.20
III.	(I+II)	59.26	65.53	63.59	34.63	40.85	59.99	56.36	53.14
IV.	Other activities	40.74	34.47	36.41	65.37	59.15	40.01	43.64	46.86
	Grand Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: NCDC Annual Reports, various issues.

8.1 NCDC's Finance for Weaker Section Schemes and ServiceCooperatives

The share in funding by NCDC for activities of weaker sections and service cooperatives (water conservation, irrigation, micro irrigation in rural areas, animal health care/health disease prevention, agricultural insurance and agricultural credit and rural sanitation/drainage/sewage systems) is telling. It constitutes 49.1% of total cumulative lending for the year 2008 to 2013-14. Also, in the total NCDC funding, credit for post-harvest operations and allied activities in agriculture (dairy, poultry, and fisheries) form 53.14%.

Given this preponderance of funding marginalised segments, NCDC has surprisingly not been covered for interest subvention under priority sector lending by RBI since 2010 (Table 8.3), particularly since it involves lending to activities where viability considerations would make lending imprudent. While many of these activities are carried out by the most marginalized segments of the agriculture community, other activities such as conservation, irrigation etc. are important and critical from the Social Benefit angle and needs support to be viabile. The high proportion of funding by NCDC for this range of activities deserve to be acknowledged through appropriate

fund support which would enable NCDC to fund this sector on softer terms than it has hitherto done. It bears repeating that cost of capital of NCDC being higher than NABARD and SCBs makes NCDC funding highly uncompetitive. Since NCDC is involved in planning, promoting, coordinating and financing of cooperative development programmes at the national level and provides not only financial but also technical support to cooperative institutions of farmers and other sections associated with agriculture and allied rural economic activities, its high cost of capital becomes a major deterrent to its attaining its vision objectives of overall development of the cooperative sector, especially in respect of post-harvest operations.

Table 8.3: NCDC: Activity-wise Sanctions during the Period 2001-02 to 2014-15 (%): Schemes for Weaker Sections

	Items	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Fisheries	14.2	14.8	19.6	11.8	3.5	0.8	1.7	3.5	2.5	1.6	1.3	1.6	1.0	2.0
2.	Dairy & Live Stock	5.3	1.9	0.6	0.0	0.2	0.3	0.9	0.8	1.5	2.0	1.0	5.5	8.4	2.9
3.	I C D P	39.7	43.3	38.0	17.7	16.6	6.1	3.6	5.5	3.8	4.3	7.0	4.3	5.2	6.1
4.	Coir	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.	Poultry	0.0	0.2	0.2	1.3	0.0	0.1	0.3	0.0	0.0	0.0	0.3	0.0	0.1	0.1
6.	Handloom	0.0	0.0	5.4	0.1	0.1	0.1	2.2	0.1	0.2	0.0	0.8	0.0	2.0	0.7
7.	Tribal	0.0	0.0	0.0	0.5	7.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
8.	Service cooperatives	0.0	0.0	0.0	38.2	16.9	20.9	34.3	27.9	32.0	60.2	49.9	35.1	37.8	37.0
I.	Weaker section schemes including service cooperatives	59.2	60.2	63.8	69.4	44.4	28.5	43.0	37.8	40.1	68.2	60.3	46.5	54.4	49.1
II.	Other activities	40.8	39.8	36.2	30.6	55.6	71.5	57.0	62.2	60.0	31.8	39.7	53.5	45.6	50.9
	Grand Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	* scheme for providing assistance to various service cooperatives like water conservation, irrigation, micro irrigation in rural areas, animal health care/ health disease prevention, agricultural insurance and agricultural credit and rural sanitation/ drainage/ sewage systems.														

Source: NCDC Annual Reports, various issues.

In the overall composition of NABARD refinance, agriculture and allied activities account for 32.8%, post-harvest operations 26.5%, and credit for other activities is as high as 39.3%. Among other activities, disbursement for non-farm activities forms 29.4% of the total disbursement. Credit for non-farm activities includes components such as purchase of two- and three-wheelers by entrepreneurs, educational loans to individuals, all activities related to establishment of private schools and colleges and health care centres in rural areas, marketing outlets for rural products, promotion of tourism and information technology, rural infrastructure clusters and so on. It may be mentioned that NABARD is covered under priority sector lending and also

receives finance at a very low rate from RIDF Deposits (32.9%), STCRC fund (19.6%), Bonds and deposits (14.2%) (Table 8.5).

Unlike the NCDC, NABARD funding of post-harvest operations is largely confined to three segments viz. land development, storage and market yard and funding self-help groups. The percentage share of its total refinance by these three segments forms 20.8%, 4.2% and 1.5% respectively (Table 8.4).

Table 8.4: NABARD: Purpose-wise Disbursement of Refinance (%)

Sl. No.	Purpose	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Minor Irrigation	4.5	5.2	4.1	6.8	4.3	4.2	2.4	4.3
2.	Farm Mechanization	19.3	14.4	14.3	13.1	13.8	12.9	14.3	14.3
3.	Plantation & Horticulture	3.8	3.6	3.1	5.2	10.0	7.7	3.2	5.4
4.	Forestry	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
5.	Dairy development	6.7	4.6	6.0	6.8	5.8	4.9	4.3	5.5
6.	Poultry farming, Sheep, Goat and Piggery/ Animal Husbandry-others	2.4	2.8	2.9	3.0	4.4	2.3	2.9	3.0
7.	fisheries	0.3	0.7	0.5	0.4	0.6	0.2	0.1	0.4
I.	Agriculture & Allied Activities (1 to 7)	37.0	31.4	31.0	35.3	39.0	32.3	27.3	32.8
8.	Land Development	5.1	9.0	2.5	2.2	3.3	4.6	3.9	4.2
9.	Storage& Market yard	1.5	1.3	1.6	1.3	1.0	1.7	1.8	1.5
10.	Self-Help Groups	17.9	24.9	26.4	18.9	19.9	22.2	17.7	20.8
II.	Post-harvest operations (8 to 10)	24.5	35.2	30.5	22.3	24.2	28.5	23.4	26.5
11.	SGSY	2.9	1.9	1.3	1.7	1.4	0.6	0.3	1.2
12.	SC/ST- Action Plan	0.2	0.3	0.0	0.1	0.0	0.1	0.1	0.1
III.	Weaker sections	3.1	2.2	1.3	1.8	1.4	0.7	0.4	1.3
13.	Non- farm sector*	30.4	25.7	28.9	25.6	23.2	29.1	38.3	29.4
14.	Rural housing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15.	Others	5.1	5.5	8.3	15.0	12.2	9.3	10.6	9.9
IV.	Other activities (13 to 15)	35.4	31.2	37.2	40.6	35.4	38.5	49.0	39.3
16.	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Includes purchase of two, three wheelers by entrepreneurs, educational loans to individuals, all activities related to establishment of private schools and colleges and health care centres in rural areas, marketing outlets for rural products, promotion of tourism and information technology, rural infrastructure clusters and so on.

Source: NABARD.

Table 8.5: NABARD-Sources and Use of Funds in Rs. crore (as on 31.03.2014)

	Sources of Funds			Use of Funds		
	Source	**Rs. Crores**	**% Share**	**Use**	**Rs. Crores**	**% Share**
1	RIDF Deposits	83863	32.9	Production and Marketing Credit	79806	31.3
2	STCRC Fund	50000	19.6	Loans out of RIDF	78957	31.0
3	Bonds & Debentures	36215	14.2	MT & LT Project Loans	54924	21.6
4	ST Fund for RRBs	30000	11.8	Government Securities and other Investments	15071	5.9
5	Capital Reserve & Surplus	21856	8.6	Cash and Bank Balance	13411	5.3
6	NRC (LTO) and NRC (Stabilisation) Funds	16066	6.3	Fixed Assets & Other Assets	4747	1.9
7	Other Liabilities/ Funds	14008	5.5	Other Loans	3163	1.2
8	Warehousing Infrastructure	1250	0.5	Direct Finance to DCCBs	2012	0.8
9	Foreign Currency Loan	715	0.3	NIDA Loan	1750	0.7
10	Deposits	333	0.1	NABARD Warehousing Scheme	416	0.2
11	Term Money Borrowings	228	0.1	CBLO	211	0.1
12	Borrowings from GOI	40	0.0	LT Non-Project Loans	83	0.0
13	Certificate of Deposits		0.0	Co Finance Loans (net of provision)	23	0.0
14	Commercial Papers		0.0	Conversion of Production Credit into MT Loans	0	0.0
15	Loan against STDs		0.0	RIDF- Warehousing Scheme	0	0.0
16	Borrowing under CBLO		0.0			0.0
	Total	**254574**	**100.0**		**254574**	100.0

Source: NABARD.

Out of total deployment of gross bank credit of Scheduled Commercial Banks for agro-processing industries (18.4 %) the share for food processing constitute 5.25% and that of other than food processing is 13.14% (Table 8.6). The most important aspect lies in the fact that the share of agro-processing cooperatives in the total outstanding credit by SCBs to agro-processing industries forms a very negligible amount to the extent of just 0.78% as in the year 2013 (Table 8.7).

Table8.6: Industry-wise Deployment of Gross Bank Credit (%)

Sl. No.	Industry	Outstanding as on							
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Sugar	1.87	1.64	1.47	1.56	1.63	1.48	1.38	1.54
2.	Edible Oils & Vanaspati	0.84	0.64	0.79	0.74	0.68	0.76	0.84	0.76
3.	Tea	0.29	0.26	0.15	0.13	0.1	0.12	0.13	0.15
4.	Others	2.75	2.56	2.6	2.36	2.44	2.9	3.52	2.81
I.	Food Processing (1 to 4)	5.75	5.1	5.01	4.79	4.86	5.26	5.87	5.25
5.	Beverage & Tobacco	0.73	0.8	0.84	0.83	0.78	0.74	0.74	0.77
6.	Textiles	11.23	9.74	9.26	9.06	8.23	8.23	8.09	8.79
7.	Leather & Leather Products	0.67	0.58	0.48	0.46	0.39	0.39	0.41	0.45
8.	Wood & Wood Products	0.37	0.39	0.33	0.31	0.32	0.34	0.37	0.35
9.	Paper & Paper Products	1.57	1.52	1.45	1.32	1.29	1.27	1.31	1.36
10.	Rubber, Plastic & their Products	1.31	1.29	1.19	1.61	1.54	1.4	1.46	1.42
II.	Other than food processing (5 to	15.88	14.32	13.55	13.58	12.55	12.37	12.37	13.14
III.	Total Agro-processing (I + II)	21.63	19.42	18.55	18.37	17.41	17.63	18.24	18.4
IV.	Other Industries	78.37	80.58	81.45	81.63	82.59	82.37	81.76	81.6
	All Industries	100	100	100	100	100	100	100	100

Source: RBI.

It is quite apparent from the above comparative analysis that NCDC has a portfolio of the lower income quadrant of the client population and has been funding this segment consistently, despite its higher cost of funds.

Table 8.7: Organisation-wise Classification of Outstanding Credit of Scheduled Commercial Banks According to Occupation March 2013 (Rs. millions)

Occupation	Cooperative Sector	Other Sectors (Central Govt. Departments, General State Government, State Govt. Departments)	Total	Cooperative Sector	Other Sectors (Central Govt. Departments, General State Government, State Govt. Departments)	Total
I. **Agriculture**	93038	6668723	6761761	1.38	98.62	100
1. Direct Finance	24874	5788789	5813662	0.43	99.57	100
2. Indirect Finance	68164	879934	948098	7.19	92.81	100
II. **Industry**	92580	23067302	23159883	0.40	99.60	100
1. Mining & Quarrying	53	603825	603879	0.01	99.99	100
2. Food Manufacturing & Processing	34687	1482084	1516772	2.29	97.71	100
3. Beverage & Tobacco	175	223469	223644	0.08	99.92	100
4. Textiles	3502	2031636	2035138	0.17	99.83	100
5. Paper, Paper Products & Printing	90	403140	403231	0.02	99.98	100
6. Woods and Wood Products	21	68435	68456	0.03	99.97	100
7. Leather & Leather Products	7	103714	103721	0.01	99.99	100
Total Agro-processing	38536	4916303	4954839	0.78	99.22	100
Total Bank Credit	349369	54903802	55253170	0.63	99.37	100

Source: RBI: Basic statistical returns:
http://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Basic%20Statistical%20Returns.

9. Assessment of the Quantum of Subsidy/Concessional Finances in Relation to Disbursement of NCDC Fund over the Years

During the last 50 years, NCDC has provided financial assistance to cooperatives working in almost every conceivable field of the agriculture and allied sectors, prominent among these being sugar, textiles, dairy, poultry and livestock, fisheries and handlooms. In addition it has been providing technical know how and consultancy for development of the cooperative sector in its entirety. In spite of its crucial positioning in the funds flow to the agriculture sector, the facility earlier enjoyed by it of concessional finance under the scheme of priority sector lending was withdrawn w.e.f. 2010-11. Further, NCDC has also been facing tough competition from other developmental financial institutions of the Government of India.

Table 9.1: Release of Fund from NCDC (Sugar Development Fund, Corporation Sponsored Schemes, etc.)

	Loan	Subsidy	Total
2000-01	63251	1532	64783
2004-05	103704	2369	106072
2009-10	371478	6987	378465
2011-12	491137	9670	500808
2012-13	476847	9612	486460
2013-14	516625	10483	527108
	% Share		
2000-01	97.64	2.36	100.00
2004-05	97.77	2.23	100.00
2009-10	98.15	1.85	100.00
2011-12	98.07	1.93	100.00
2012-13	98.02	1.98	100.00
2013-14	98.01	1.99	100.00
	Growth %		
04-05/00-01	13.16	11.51	13.12
09-10/04-05	29.07	24.16	28.97
11-12/09-10	14.98	17.64	15.03
12-13/11-12	-1.47	-0.30	-1.44
13-14/12-13	4.09	4.43	4.09

Source: NCDC Annual Reports (various issues).

Although set up primarily as a short term refinancing institution for cooperatives, NABARD, in particular, has been increasingly engaging in activities which hither to have been NCDC's traditional funding **grounds**. Apart from agricultural credit, NABARD now offers funds for project activities in various fields like warehousing, fisheries, handlooms etc. In July 2014, the then Finance Minister had announced that a special fund of Rs.2,000 crore would be set up in NABARD to make available

affordable credit to agro-processing units being designated as Food Parks. The fund has since been established in NABARD by the RBI.

The table below illustrates the cost of capital of NCDC, NABARD and SCBs.

Table 9.2: Cost of Capital – NCDC, NABARD and SCBs

	Year	Borrowing (%)	Lending (%)	Margin (%)
NCDC	2009-10	5.60	8.60	3.00
NCDC	2010-11	9.27	10.05	0.78
NCDC	2011-12	8.56	11.35	2.79
NCDC	2012-13	9.93	11.11	1.18
NCDC *	2013-14	9.73	11.58	1.85
NABARD**(RIDF)	2013-14	3.5 to 6.5	8.00	4.50 to 1.50
SCB **	2013-14	6.0 to 7.0	9 to10	3.0 +

Source: * NCDC; ** As per RBI Circular dated 16.03.2012; ***Bank of Baroda.

Due to its autonomous status and monopoly in agriculture refinance, NABARD's interest rates are considerably more competitive than NCDC rates of interest in almost all spheres of activities. The main reason is the inherent advantage that NABARD possesses due to its low cost of fund.

Unlike the NCDC, the majority of the resources raised by NABARD are due to the mandate it enjoys from the Government of India or is provided from the Budget. For example, the funds received by NABARD under the RIDF (Rs.83,863cr outstanding at the end of FY14)are available at interest rates ranging from 3.5% to 6.5%, as per the RBI circular dated 16.03.2012. NABARD lends these funds at 8%, an easy source of profit, which helps it in augmenting its reserves and surplus that could again be used to provide loans in the future.

While it is difficult to know the cost of borrowing for funds under the STCRC (Rs.50, 000 crore outstanding at the end of FY 2013-14) fund and the Short Term Rural Credit (Refinance) Fund for RRBs (Rs.30, 000 crore outstanding at the end of FY14), it is not unreasonable to assume that the cost of funding would be similar to RIDF, considering that the origin of both these funds is similar. Both these funds, like the RIDF, were established with funds contributed by the Scheduled Commercial Banks, which have not achieved their priority sector lending obligations. Thus, of the Rs.2, 54,574 crore of financial resources of NABARD at the end of FY 2013-14, Rs.1, 63,863 crore or 64% of the total resources were low-cost resources. Compared to the generous funding that NABARD is receiving at soft interest rates, NCDC has not received any mandated funds from the Government of India (GOI). During 2013-14, of the total disbursements of Rs.5, 271.08 crore, the disbursal of subsidy stood at only Rs.104.83crore i.e. a mere 2% of total disbursals. While the disbursal of subsidy does help in reducing the effective cost of funding it must be recognised that at 2% of total disbursals it is miniscule and insignificant in determining rate of interest when compared to the funding support that NABARD is receiving.

Compared to the cheaper sources of funding and budgetary support being provided to NABARD, NCDC has to source its funds from the market. As a result, the cost of funding of NCDC is considerably higher than that of NABARD. Further due to non-availability of cheap funds, NCDC's is not able to provide loans to cooperatives at

competitive rates and cooperative societies are not able to raise finance for post-harvest activities in Agriculture.

9.1 Cost of Funds of Scheduled Commercial Banks

The major sources of funds of Commercial Banks are deposits of savings, current and fixed deposits, the cost of which deposit mix is around 6-7% in almost all the banks depending upon the location of branches. This cost of raising funds enables sufficient margins of more than 3% for financing of post-harvest activities in agriculture, which is profitable both for commercial banks as well as for their borrowers.

As a statutory creation of GOI for playing an important role in post harvest value addition, NCDC has not been given adequate support through central funding as is the case with NABARD, which has also been statutorily created to fulfil a pre harvest funding portfolio. The undue imbalance in the importance given to pre harvest funding vis-à-vis post harvest funding needs to be urgently addressed. In light of the above, it therefore, makes eminent sense that NCDC be provided interest subvention of 2% to help it provide funds to cooperatives at competitive rates.

Alternatively the subsidy component of other Government of India sponsored schemes may be dovetailed with NCDC Schemes so that NCDC is able to finance at competitive and cheaper rates as being done by other organisations such as NABARD with sufficient margins also available to enable professional performance.

A part of the RIDF fund, which is earmarked for NABARD at present, may also be considered to be made available to NCDC for funding storage and cold storage activities presently being funded by NCDC at a very high rate of interest.

9.2 Measures Suggested for Strengthening/Increasing Lending to Cooperatives in Post-Harvest Activities

The functions of District Central Cooperative Banks (DCCBs) are mainly divided into three categories:

- Providing crops loans to the farmers through primary societies.
- Deposits and loaning (consumption loan, housing loan, car loan etc.).
- Project financing for post Agriculture activities and non-farm sector such as hospitals, mini trucks and small business loans.

Loans for Food processing and other post-harvest activities are not usually sanctioned by the DCCB due to lack of know-how as well as a lack of viable projects. NCDC must provide model projects and support for technical appraisal to cooperatives along with financial support for post-harvest projects such as agro and food processing projects.

There exists a large scope for exploiting the vast potential in the agro-processing sector which is presently an opportunity missed. An example that bears repeating is the earlier cited example of Arunachal Pradesh, a rich Kiwi growing state. Due to lack of marketing, storage, transporting and processing facilities, Kiwi is sold at throw away prices in the local market whereas in cities like Delhi and other metros, Kiwi is sold at the rate of Rs.20-25/- per piece.

9.3 Suggestions for Strengthening/Increasing/ Lending to Cooperatives for Enhanced Post-harvest Activities

- More direct interaction with institutional buyers (usually through federations, cooperatives) may serve as a foundation for credit provision and improved market information, which would result in the production of a higher quality product that can be sold at a premium price.
- Mobilising resources to address post-harvest inefficiencies upstream in the supply chain, in part, by connecting smallholder farmers more directly to formal buyers via effective cooperatives and business companies
- Bringing a shift from selling small quantities in an undifferentiated commodity market to selling a high-value, differentiated product to larger-scale buyers, representing a fundamental change in the staple marketing system.
- Build more direct market linkages by connecting cooperatives and buyers to opportunities on the demand and supply side.
- Providing credit support to cooperatives for improvements in post-harvest infrastructure.
- Securing a market, extending credit, providing training in warehouse management to cooperatives, developing their capacity to supply a differentiated product that captures a premium in the market place.
- Addressing post-harvest losses and post-harvest inefficiencies;
- Identifying business opportunities to facilitate the creation of new public-private partnerships for investment in post-harvest infrastructure of cooperatives, and improving overall transport and logistics operations.
- Evolving the finance approach from an initial focus on leveraging investment in storage infrastructure to a focus on credit for cooperatives to support purchases by their members. This "merchandising credit" model could enable cooperatives to successfully fulfil orders from promising buyers.

Table 9.3: Funding by NCDC, NABARD and SCB for Post-harvest Operations (Rs. million)

	NCDC	NCDC	NABARD	NABARD	SCB	SCB
Items	**Post-harvest operations**	**Grand Total**	**Post-harvest operations**	**Total**	**Agro-processing Industries**	**All Industries**
2007-08	20231	35853	22139	90456	1856760	8583440
2008-09	26970	44058	37110	105353	2047330	10543900
2009-10	30065	50463	36645	120091	2433140	13114520
2010-11	19530	62943	30118	134859	2962910	16131830
2011-12	27086	70829	37341	154174	3372760	19373260
2012-13	37912	71761	50296	176743	3932410	22301820
2013-14	36421	77580	50328	214862	4601530	25228750
Cumulative	198215	413487	263978	996538	21206840	115277520

Source: NCDC, NABARD, and RBI.

All approved projects of NCDC are executed through cooperatives and the beneficiaries are the members of the societies who are small & marginal farmers. NCDC is the only financing institution exclusively for the cooperative sector and its

programmes directly impact rural livelihoods. Almost all the funded projects benefit the rural agricultural economy. Some of the major activities funded by NCDC are as under:

I. Distribution of agricultural inputs, marketing & storage,
II. Processing of agricultural produce,
III. Establishment of cold storages,
IV. Programmes classified as "Weaker Section Programmes" which include programmes for Fishery, Dairy & Livestock, Tribal & SC Cooperatives, Handloom Cooperatives, Poultry Cooperatives, Coir, Jute & Sericulture cooperatives, Labour & Women Cooperatives, etc.,
V. Credit to small farmer cooperatives for agriculture and allied activities,
VI. Overall development of cooperatives in selected districts through Integrated Cooperation Development Projects (ICDP),
VII. Distribution of consumer articles in rural areas, and
VIII. Working capital and infrastructure facilities to labour cooperatives, etc.

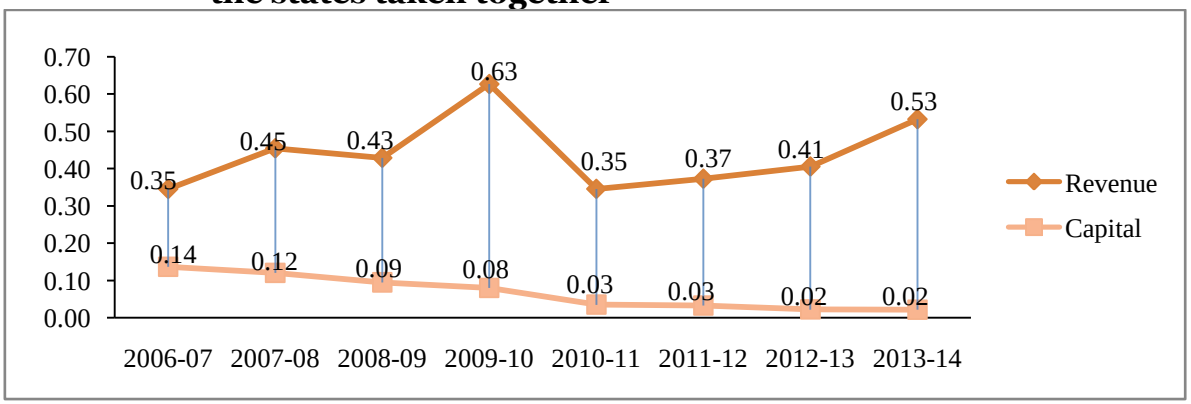
NCDC provides assistance to group of farmers forming cooperatives for implementing various programmes in agriculture and allied activities, as detailed above, including development of infrastructure, strengthening of post-harvest linkages etc. which benefit the rural community comprising mainly small farmers and weaker sections, by enabling value addition of their produce. Activity-wise sanction of loan in million rupees from NCDC is shown in the Appendices.

10. An Overview of Budgetary Expenditure on Cooperation by State Governments

With the advent of planning in the post-Independenceperiod and as a result of the All Indian Rural Credit Survey Report, the importance of State funding to and through cooperatives increased. This emphasis on State partnership of cooperatives continued through the Sixties to the late Eighties, until the crucible of change in the Nineties took toll. From being a third sector of economy, over time, the cooperative form of enterprise has been relegated to the background. Indeed, from the Eighth Plan, the traditional chapter on Cooperation was dropped. Trend has since continued as is evident from the following analysis.

The proportion of revenue and capital expenditure for the cooperative sector is an important indicator of the extent of cooperative activities at the state level. Revenue expenditure can be likened to consumption expenditure, while capital expenditure (loosely investment) adds to assets and productive potential. Both revenue and capital expenditure on cooperatives at the State level is less than 1% of the total budgetary expenditure as may be observed from the figure below:

Figure 10.1: Revenue and capital expenditure of cooperatives as a percent of total revenue and capital expenditure of all the states taken together



Source: State Finances – A Study of Budgets.

A few points notable in this regard are:

- The proportion of revenue expenditure to total expenditure is higher than the corresponding proportion of capital expenditure, implying that recurring expenses and consumption are more for the cooperative State departments,
- The proportionate capital expenditure in each year is far below the revenue expenditure, reflecting low long-term level of investments/ projects in cooperatives, and
- Capital expenditure as a proportion to total expenditure shows a downward trend, reflecting receding importance of cooperative production activities in the State finances.

To what extent States are able to utilise funds allocated for cooperation in the State's budget is an important indicator to assess both capacity and capability of the respective states to develop the cooperative sector. Paucity of funds under capital account could be an indication of the absence of enough scope for investment in spite of funds availability. This may also reflect lack of initiative by the State Government to provide funds, required motivation, project conceptualisation & implementation, technical know-how and capacity building.

10.1 Share of cooperation in total budgetary expenditure of State Governments

The ranking of States by percentage share in cooperation in the total budgetary expenditure of the State Government (Table 10.1) shows that the high ranked States are largely those with high performance in terms of share in value of output in the agro processing sector. The average budgetary share of the cooperation Departments in the total State budgetary expenditures from 2006-07 to 2013-14 is 0.18% for all the States taken together. However, if we split the time period into two parts, the average for 2011-14 (0.14%) is less than the average for 2007-10 (0.22%). The overall average percentage is at a maximum 0.54% in Karnataka and at a minimum 0.05% in Assam and Arunachal Pradesh. In all these years and across all States, the share has remained fairly below 1%.

Table 10.1: Expenditure on cooperation as percent of total budgetary expenditure (Revenue + Capital) of State Governments (B.E.) from 2006-07 to 2012-13

	Average (2007-10)	Average (2011-14)	Overall average
Karnataka	0.71	0.37	0.54
Tamil Nadu	0.79	0.21	0.50
Maharashtra	0.62	0.17	0.40
Jharkhand	0.68	0.08	0.38
Nagaland	0.42	0.15	0.29
Meghalaya	0.13	0.26	0.20
Mizoram	0.29	0.08	0.19
Andhra Pradesh	0.21	0.16	0.18
Chhattisgarh	0.21	0.15	0.18
Odisha	0.18	0.17	0.17
Madhya Pradesh	0.15	0.16	0.16
Kerala	0.14	0.17	0.16
Bihar	0.11	0.18	0.14
Sikkim	0.16	0.13	0.14
Jammu & Kashmir	0.14	0.13	0.14
Himachal Pradesh	0.12	0.13	0.13
Uttarakhand	0.12	0.13	0.12
Goa	0.18	0.07	0.12
Uttar Pradesh	0.07	0.13	0.10
Haryana	0.06	0.15	0.10
Manipur	0.12	0.06	0.09
Tripura	0.09	0.08	0.09
Gujarat	0.07	0.10	0.08
Rajasthan	0.07	0.08	0.08
West Bengal	0.06	0.08	0.07
Punjab	0.05	0.06	0.05
Arunachal Pradesh	0.06	0.04	0.05
Assam	0.05	0.04	0.05
All States	0.22	0.14	0.18

Source: State Finances – A Study of Budgets.

Table 10.1 shows that for most states, cooperatives are almost an insignificant entity. Huge variation exists among States, with a few States having proportions a little higher compared to the others, notably, Karnataka, Tamil Nadu, Maharashtra and Andhra Pradesh. Another point to be noted is that the share of cooperation is declining over the years as a percentage of the total budgetary expenditure. As there is little fiscal space, cooperatives need the financial space urgently to tap the resources for productive use that would lead to combined benefit of the larger section of society.

11. NCDC: A Responsible Financial Institution to be buoyed

Despite its credit portfolio having a preponderance of funding of the marginalised segments of the agro and allied sectors, over the years NCDC has grown in strength and financial stability with healthy parameters that have earned it consistently high credit ratings by ICRA and India Rating as well as ISO flagging. Its funding has steadily increased, as also its profitability, supported by a high recovery rate of its loans and its comfortable capital structure. The latter is despite the fact that NCDC does not get budgetary support of the kind that NABARD does.

Supported by a pool of competent human resources and streamlined and stringent lending norms and appraisal, NCDC has exhibited a resilient strength that needs to be budgetarily supported so as to enable it to in turn support segments of the agricultural and rural economy that need it most.

Being a wholly owned government entity, NCDC raises funds from banks at competitive rates on the strength of its established relationship with banks. However, it's relatively low gearing along with financial flexibility results in a comfortable liquidity position for the Corporation.

11.1 Credit plus Support is the Root of NCDC's Strength for Recovery

NCDC's role in financially assisting the cooperative sector provides an important insight that shows how the Corporation, despite difficulties in the existing scenario of non-interest subvention has been able to extend credit to strengthen the cooperative movement. Comfortable recovery performance and asset quality profile sets standards for NCDC wherein exposure to weak/new cooperatives is through state governments and direct funding is provided to the cooperatives that fulfil a stringent set of norms.

NCDC's stable profitability profile is again supported by adequate NIMs (Net Interest Margin), low operating expenses and control on credit provisioning. Additionally, NCDC is a nodal agency for routing various capital investment subsidy programmes of the Government of India for cooperatives, which helps crystallise its lending rate and improve its competitiveness.

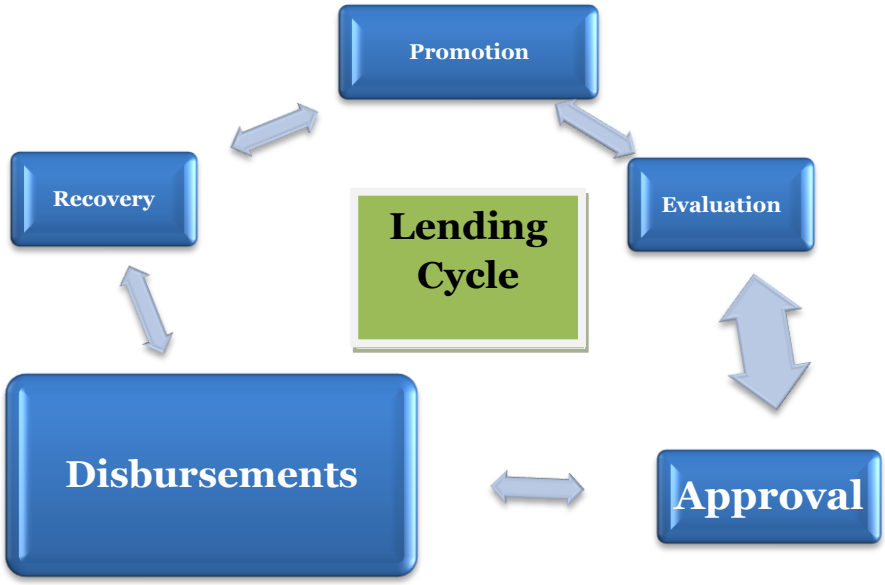
Having a strong determination to improve the strength of cooperative activities, NCDC withstands substantial exposure to relatively inferior credit profile borrowers' i.e. cooperative banks and small cooperative societies to support cooperative activities, that are the basis of socio-economic welfare in the rural hinterland. Despite its clientele, NCDC's track record in maintaining a strong recovery profile as a result of adhering to a policy to ensure minimum security coverage and exposure to new/weaker societies through state government, helps it to moderate its risk to some extent.

11.2 Key Aspects and Strengths of NCDC's Lending Cycle (leading to High Recovery)

Although recovery of loans is a final step in the lending cycle, its being high is an outcome of the effective management of all integral phases of the lending cycle.

Non-payment of dues or default occurs, if the earlier processes are not conducted correctly.

Figure 11.1: Lending Process and the Cycle of Recovery of NCDC Loan



The Corporation has, over the years, evolved a sound approach, procedures and practices to accomplish the objectives of prudent financing to cooperatives to help them in achieving the purpose of projects/assistance. Its robust cycle in funding projects, a brief elaboration of which follows, has been the reason for its success rate in recoveries.

I. Promotion

The Corporation maintains close liaison and relationship with the State Governments and Cooperatives to promote its various schemes (area-based, activity specific, commodity focussed, target-oriented) providing range of financial support viz. project funding, investment loaning, business promotion (working capital / margin money) etc. based on the environment and resources available in specific state/area. All product features, requirements and term & conditions to avail NCDC assistance are explained to the potential users. It organises various promotional meetings and discussions at state/district levels to take a view on possibilities for development of cooperatives with NCDC assistance. Based on feedback/interactions, the Corporation also bring changes in its schemes and make them more client-centric.

II. Identification and Selection of right kind of projects

With long association and experience of cooperatives funding for different projects/purposes and their successful implementation, the Corporation helps the State Government and Cooperatives to identify and select suitable projects based on the profile of cooperatives, resource base, potential, threats and opportunities in

their area. Its officers also support them in developing project proposals to suit the NCDC's funding pattern and requirements.

III. Evaluation/Appraisal of Projects

It is said that there are no bad borrowers but only bad loans. The corporation has developed a sound appraisal system to examine and analyse the project proposals for their genuineness, viability and sustainability. The cooperatives, being unique and distinct, the proposals are studied for both business and cooperative parameters. The existing system followed by the corporation is comprehensive and includes:

a. *Examination of Proposals (in the Division)*

Each Programme Division examines, among other things, the following aspects of a proposal pertaining to their sector:

- ✓ Members' ability to raise share capital contribution
- ✓ An assessment of the availability of raw material
- ✓ Past financial and operational performance of the cooperative
- ✓ Financial soundness of Society
- ✓ Assessment of credit worthiness of the borrower. Repayment position with respect to previous loans, if any, default position, where applicable, are be specifically highlighted.
- ✓ Managerial ability-examination of both cooperative and professional aspects
- ✓ Market feasibility, technical feasibility and financial viability of the project
- ✓ Power situation in the State
- ✓ Past performance of such units in the State
- ✓ Industry specific scenario
- ✓ Availability of adequate security for the loans sought by Corporation

Projects are taken up for further scrutiny if they satisfy the eligibility criteria laid down under the respective scheme and for directly funded projects satisfy the prescribed norms. Proposed relaxation in the norms, if any, are clearly indicated. Further, the cases of cooperatives which do not have a previous track record are carefully appraised, and the background & capability of promoters of cooperatives are assiduously assessed.

The proposals received for direct funding are processed in terms of specific guidelines and a brief of the proposal, along with the check list for direct funding and analysis of the Balance Sheet are placed before the Pre-Screening Committee.

b. *Formation of an Appraisal Team*

If the Programme Division feels that proposal is fit for detailed appraisal, it recommends the formation of an appraisal team which may include a Technical Expert, if so needed.

c. *Report of Appraisal Team*

The Appraisal team visits the site and examines all the aspects relating to availability of raw material, capability of management, market and techno-economic viability etc. as mentioned in earlier para (a). Appraisal Teams invariably examine the aspects like nature, title, adequacy etc. of the security which also forms part of the appraisal report. It also invariably includes a scheduling of the project activities based on realistic assessment of ground conditions. Risk and sensitivity analysis are also included in the report.

d. *Examination of Appraisal Report by the Programme Divisions*

Project Reports are examined in the concerned Programme Division and its comments incorporated. If there are any legal issues involved, legal opinion is obtained and examined by the Division. The Division prepares a modified note for placement before Screening Committee. The report is thereafter sent to the Finance Division for examination.

e. *Examination in Finance Division*

The Finance Division examines the proposal, in particular, with regard to the assumptions made for the profitability analysis as well as the analysis of financial statements and then gives its recommendations.

f. *Placement of proposal before Screening Committee*

The proposal along with recommendations of the Division including the recommendations of the Finance Division is placed before the Screening Committee. Thereafter, the Division will incorporate the Screening Committee recommendations for placing the proposal for consideration of the Board of Management.

g. *Fact Sheet*

A Fact Sheet in the prescribed proforma is essentially added to the agenda notes for the Board to apprise the board with past processes and to facilitate decision. Format of the Fact Sheet used is given hereunder:

Table 11.1: Facsimile Fact Sheet

1. Name of the Society
2. Project
3. Block cost
4. NCDC assistance
5. Date of receipt of proposal at NCDC
6. Date of Pre-Screening Committee meeting
7. Date of constitution of Appraisal Team
8. Composition of Appraisal Team
9. Dates of field appraisal
10.Date (s) of Screening Committee meeting
11.Reasons of delay

The endeavour in the process is to make sure that only right kind of projects are assisted and no under or over financing is done, and the loan assistance is within the repaying capacity of the project and the client. The impact of all possible risks associated in smooth functioning of project is also studied and examined.

The other noticeable features of this phase are:

- Good borrower selection and preparation
- Adoption of sound techniques for appraisal and abiding by the norms
- Appropriate loan size and terms
- Facilitation with the intention of building long time relations
- Clarity and transparency of methods and dealing
- Objectivity in evaluation
- Cash flow pattern examined to ensure recovery and the client is advised regarding the same, upfront.

Normally, recovery depends on the purpose, time and conditions, the business cycle running process etc. of the financing. An attempt is made to see that these are genuine and realistic. Every aspect of security, legal documentation etc. is ascertained at the beginning/appraisal stage to ensure genuineness, security and recovery of the funding for business/projects.

IV. Approval and Disbursement

Recognising the timely need of funds by cooperatives and its own business competition, the Corporation in order to ensure speedy and prompt approval has decentralised the financial powers at different levels with a reasonable delegation of powers to RDs and HODs for sanctioning of projects. This has also increased the interaction of RDs with State Governments and Cooperatives, and led to meaningful involvement at different phases of the lending cycle resulting in valuable experience for future projects.

Disbursement of funds for directly funding projects requires the completion of laid down formalities and documentation i.e., (i) Board Resolution of Society (ii) Execution of loan agreement and (iii) Mortgage Documentation. A checklist for examining the Board Resolution (Annexure-I) and Loan Agreement (Annexure-II) take care that all aspects are covered while completing legal formalities. The system for custody of legal documents and their security are also well defined.

The above processes are backed by an online package i.e., Sanction Release Data Base (SRDB) and Loan Accounting (LA) for quite a long time wherein all details in respect of proposals and generation of various sanction/release reports are entered. The status of the proposal is updated from time to time for online review of the status of pending proposals.

The approval of financing for business/projects are completely objective and determined by the findings of project appraisal, recommendations of pre-screening committees, soundness of financing and adequacy of security and legal documentation.

The release of funds, subsequent to ways & means advance is aligned with the progress/expenditure incurred and raising of members' contribution by the cooperatives.

V. Recovery

The recovery mechanism and schedules are explained to the client cooperatives at early stages of the lending cycle as well as at the time of approval and disbursement of funds. The following features of recovery are specifically made clear:

- Concept of deemed date/due dates in case of State Governments
- Rebate for timely payments
- Penal interest for delayed payments
- Legal action stipulated for recovery of overdue amount

Recovery of loans is centralised at Head Office of the Corporation at New Delhi. The State Governments are required to repay the loan in annual instalments while directly funded cooperatives repay half yearly.

Monitoring, which is fine tuned to assess the performance of projects and cash flow patterns results in good recovery. A well-defined monitoring mechanism is adopted by the corporation to benefit the states in timely completion of projects, minimise cost overruns, improve recovery of dues and also enhance the image of cooperatives. Quarterly Progress Reports, Review Meetings, visits to project sites, regular interactions with state government officials and timely feedback on issues/corrective actions are adopted at the project implementation phase and progress/review of operational, production, financial parameters and repayment of loans are used during the post project implementation phase. This ensures timely, progress based and purposive use of funds. The active involvement of RDs at all stages of generation, financing and recovery of funds also supports this.

Annually NCDC's Finance Division and Regional Offices pursue with the State Governments to ensure adequate provisioning in the State budgets for NCDC projects funded through State Governments. The RDs remain pro-active in this exercise and as and when a situation of default is detected, all out efforts are made to ensure repayments.

Few other crucial aspects are:

I. Competent HR as driving force

The Corporation has increasingly recognised manpower development and training as a Strategic Business component in its effective functioning as a Developmental Financial Institution (DFI). Updated Requisite and Core Business knowledge and financing skills are continuously provided through need-based, well-designed training programmes conducted by its in-house institute with the support of the Corporation's technical experts and external resource persons. The programmes imparted are very specific to the needs and special dimensions of cooperative societies and their projects.

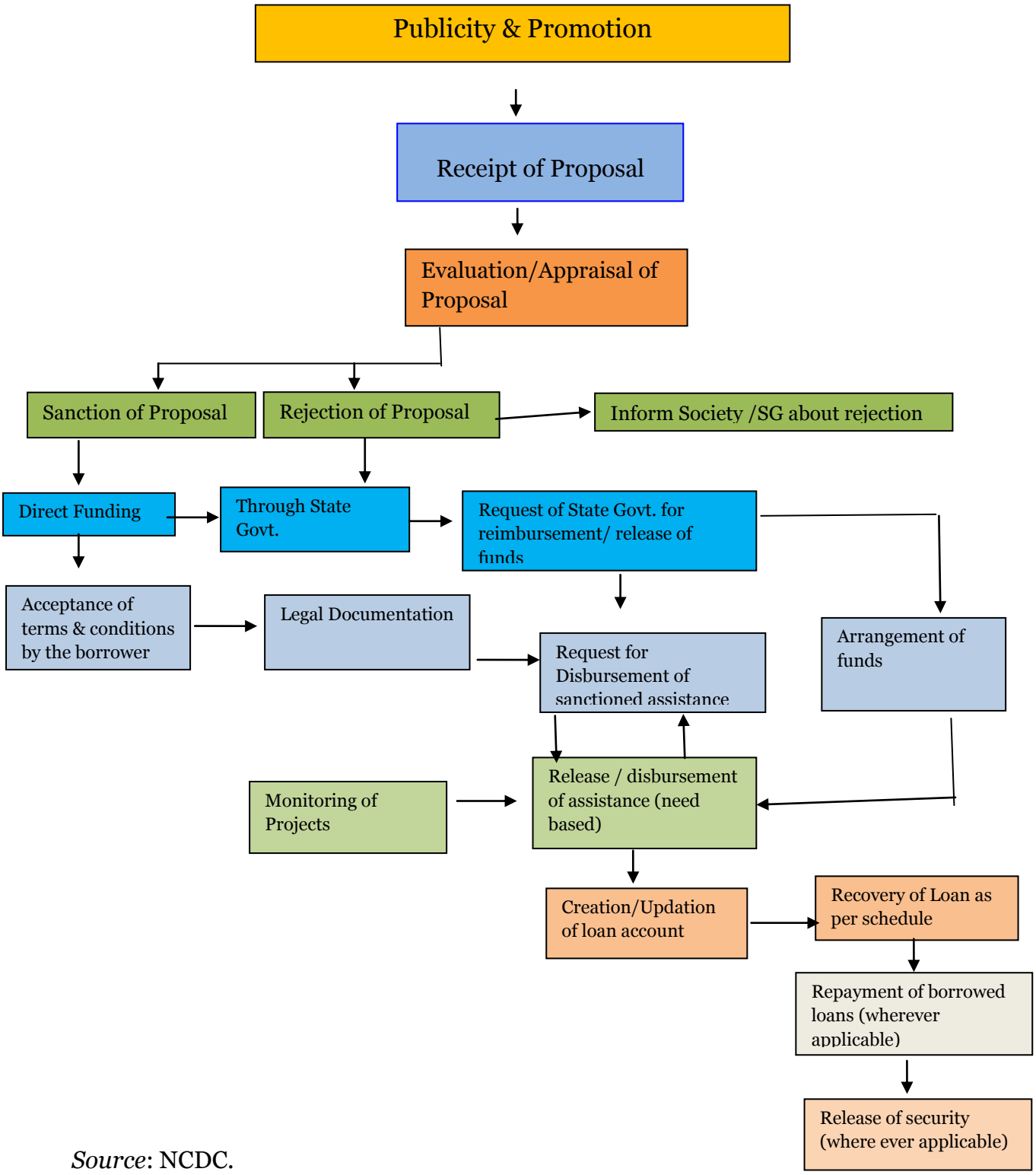
II. ISO – Quality Management System (QMS) in practice in NCDC

With a customer centric approach and for continual improvement, the Corporation has identified processes, procedures, sequence & interaction of processes, developed and put in place a QMS on lines defined under ISO. An accredited third party certification body found these systems to be in conformance with the QMS

requirement and has certified the NCDC as an ISO 9001:2008 compliant organization. NCDC upgraded to the new version ISO 9001:2015 by making the requisite changes to meet the requirement of the new version ISO 9001:2015. A Quality Team comprising of 5 Committees (i) Risk, (ii) Discipline, (iii) QMS Documentation (iv) Organizational Knowledge & (v) Cleanliness are involved in the implementation of ISO 9001:2015 in NCDC.

The QMS has been instrumental in facilitating effective governance, management and functioning of the Corporation as a Developmental Financing Institution.

Figure 11.2: Sequence and interaction of key processes related to Loan Cycle



Source: NCDC.

III. High Customer Sensitivity and Concern

NCDC, as a strategy, believes in fostering a long term effective relationship with cooperatives. It, therefore, not only lends for projects/business but also extends lot of non-financial support aimed at creating appropriate conditions and synergy for cooperatives to successfully conceptualise and implement projects. The important interventions in this regard are:

- ✓ Extending consultancy support for formulation of projects,
- ✓ Facilitating the creation of Technical & Promotional Cells at Registrar of Cooperative Societies (RCS)/State Federation levels to promote business development and handholding them,
- ✓ Imparting training to cooperative personnel to upgrade their professional/operational skills,
- ✓ Sponsoring study visits of co-operators/officials to best practice cooperatives,
- ✓ Convening All-India and Regional Conferences to facilitate exchange of information and review of progress etc.,
- ✓ Awarding fellowships to faculty members/managers for courses at IIM, Ahmedabad and VAMNICOM, Pune respectively, for up gradation of skills, &
- ✓ Bestowing Biennial Cooperative Excellence Award to primary cooperatives.

IV. Mutual Trust and Symbiotic Relationship

NCDC's long-term visibly professional presence, fairness, sensitivity to client requirements & transparency has had a significant positive impact on its business and loan recovery. Its clients also acknowledge the inherent need for NCDC financing to be able to sustain and that it is in their own interest to remain eligible for its funding.

11.3 Profile of NCDC is Supportive of Schematic Cooperative Activities

Unlike other finance companies, NCDC is neither a company nor regulated by the RBI. NCDC works under the guidance of the Ministry of Agriculture & Farmers' Welfare and has the sole objective of propagating activities such as marketing, storage and processing of agricultural produce besides supply of seeds, fertilisers & other agricultural inputs etc. by cooperatives. Marketing & Inputs distribution, Agro - Processing and Industrial & Service cooperatives account for nearly 88% of NCDC's funding as depicted under:

Table 11.2: Distribution (%) of NCDC Funds among major activities

Major Activities/ Year	2015-16	2014-15	2013-14	2012-13	2011-12	Average 5 Year Share
Marketing & Inputs	59.2	63.4	43.1	36.2	18.1	44.0
Agro-Processing	19.5	18.5	19.5	33.6	26.2	23.5
Industrial & Services Cooperative	12.9	8.9	22.6	19.9	45.7	22.0
ICDP	3.8	4.1	5.7	6.1	4.0	4.8
Weaker Sections	2.9	3.6	6.3	2.1	3.8	3.7
Storage & Cold storage	1.1	0.8	1.0	0.8	0.8	0.9
Consumer Coop.	0.1	0.1	1.0	0.2	0.3	0.3
Computerisation of Cooperatives	0.4	0.6	0.8	0.9	1.1	0.8
Promotional & Developmental Activities	0.1	0.1	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: NCDC.

From the pure financial perspective, lack of diversity in earnings due to insignificant fee based income is a concern as also the fact that NCDC primarily relies on bank borrowings to raise its borrowings. In recent years, the Corporation has started mobilising funds through Commercial Paper (CP) route, which could help diversify its resources profile, to some extent, as well as to reduce cost of funds. In this context, it may also be noted that a consistently good credit profile and public sector entity status could enable NCDC to tap other sources of funds, in case of need.

NCDC's strength can be summarised as under:

- Sovereign ownership (100% Government owned entity) mandated statutorily,
- Ability to mobilize funds at around base rate from banking channel,
- Track record in maintaining good asset quality,
- Stable profitability,
- Comfortable capitalisation (total debt/net worth of 3.37 times in 2015-16), and
- Nodal agency for routing various government subsidies/grants to cooperative sector, which increases its competitiveness.

Its weaknesses emerge from

- Exposure to relatively small & susceptible cooperatives (both banks and societies),
- High credit concentration risk,
- Deficiency of external capital support,
- Lack of diversity in earnings due to insignificant fee based income, and
- Lack of regulatory supervision as NCDC, unlike other finance companies, is neither a company nor regulated by RBI

Despite the fact that the credit profile of cooperative societies and banks is vulnerable given their small scale of operations and limited financial flexibility, the NCDC has been operating with risks, targeting the welfare of the rural communities

through loans and advances. However, NCDC has built up an adequate security mechanism in the form of

- Hypothecation of receivables,
- Stock/ pledge of Fixed Deposit Receipts,
- Mortgage of assets,
- Tripartite arrangement with other co-financing banks in the case of Cooperative Societies, and
- Successful track record of stringent timely collection from cooperative banks/societies.

Through stringent monitoring of its lending, which has resulted in more profitable efforts by cooperatives, NCDC has been able to maintain comfortable asset quality indicators and its recovery performance with recovery ratio of more than 99% over last many years is impeccable.

11.4 Business Mechanism of NCDC ensures better functioning of the Cooperative Units

NCDC's engagement since 1963 with financial assistance to cooperative banks and societies mainly involved in agriculture and rural oriented activities has followed several routes such as financing through state governments (indirect financing to cooperative sector), and more recently direct financing.

Direct financing is generally to stronger cooperatives entities and indirect financing to weaker/new entities where the State Governments bear the onus of repayment to NCDC.

It is also a recognised nodal agency for steering various government subsidies/grants to the cooperative sector, which softens NCDC's lending rates and increases its competitiveness.

Effective Management

Though neither a company (Under Companies Act 1956) nor governed by Reserve Bank of India, the Ministry of Finance, Government of India vide their notification dated 9th May, 2003 and 12th June, 2003 has notified NCDC as a Public Financial Institution (PFI) under sub-section (2) of section 4A of Companies Act 1956. NCDC is controlled by Ministry of Agriculture, Government of India.

NCDC is managed by its 51 member widely represented General Council which shapes its policies and programme and a 12 member policy making Board of Management that approves its projects & their funding.

NCDC does not follow any credit concentration norms mainly to devote more fund allocation to the deserved cooperative units to fulfil its business as well as social objectives.

Profitability

Over the years NCDC has reported a stable profitability profile supported by adequate NIMs, lower operating expenses and control on credit provisioning. During 2015-16, NCDC reported improvement in profitability led by NIMs expansion supported by mobilization of funds through low cost Commercial Paper borrowings as well interest recovery on Non-Performing Assets (NPAs). Despite the improvement NCDC's profitability remains moderate as reflected in PAT/ATA of 2.2% and return on net worth of 10% during 2015-16.

As a policy NCDC intends to fund long term loans through its net worth and short term loans (margin money, working capital and current portion of term loans) through bank borrowings, which along with adequate unutilised sanctioned bank lines and comfortable capital structure result in comfortable Asset Liability Management (ALM) profile. Further, as a policy, NCDC maintains unutilised working capital lines and lien mark the same to cover repayment of the borrowings for Commercial Paper.

It may also be noted that NCDC's capitalisation profile is comfortable, despite lack of external capital infusion, supported by limited growth over last many years and moderate internal capital generation.

Despite the exposure to a relatively weak segment (cooperatives) of the economy, asset quality indicators of the corporation have been comfortable reflected in gross and net NPA of 0.7% and nil, respectively as on 31st March, 2016.

NCDC's track record of good recoveries is based on its promotional measures and adequate security coverage provides ease to its assets quality. Yet, NCDC's asset classification norms are liberal compare to other Financial Institutions as it classifies only 1 year principal overdue or 6 months interest overdue as NPA.

11.5 Credit Portfolio comprised Exposures directly to State Governments as well as to Cooperative Banks and Societies

NCDC's credit portfolio, broadly concentrated in agriculture and related activities, is quite diversified across various activities like fertilizers, sugar, textiles, marketing and storage etc.

NCDC provides direct funding only to relatively strong cooperatives banks and societies (fulfilling certain conditions like no cash losses in last three years, profits in at least two years out of last three years period and no erosion in paid up capital of the entity) and routes its financing to weak/new entities through State Governments where loans are provided to State Governments for loans to cooperatives societies. Direct loans to cooperatives are provided against the security of fixed assets, hypothecation of receivables/stock, pledge of Fixed Deposit Receipts, mortgage of assets and tripartite arrangement with other co-financing banks in the case of cooperative societies.

Of its loans to cooperative banks, around 10% are loans to Apex cooperative banks and 90% is to district cooperative banks. Loans to cooperative societies, which are more vulnerable due to their small scale of operations and limited financial flexibility; are against a comfort letter from the State Government for timely payment

in case of one large exposure and adequate security coverage in loans to societies/banks reduces the risk.

11.6 Good Recovery Performance resulted in Comfortable asset quality indicators; though profile of borrowers remains weak

The NCDC's recovery performance has been more than 99% over last few years as a result of the strength of its policy to take direct exposure to only relatively strong entities and fund relatively weaker/newer entities through State Governments, which also bear the onus of repayment.

State Governments repay the NCDC loan from their budgetary allocation which ensures better recovery performance to NCDC. NCDC's General Council, which comprises members from all States of India, ensures recovery from State Governments. However, financial health of State Governments continues to remain moderate.

NCDC's portfolio vulnerability remains high in loans to cooperative banks/ societies due to small scale of operations and their limited financial flexibility. However, NCDC has been able to maintain a good recovery performance and asset quality profile due to its continuous effort related to cooperative development.

NCDC's NPA norms are liberal compare to other Financial Institutions as it follows 1 year principal or 6 months interest overdue for NPA classification. Nevertheless, NCDC's significant exposure to relatively weaker sector and small cooperative entities results high portfolio vulnerability, although adequate capitalization is likely to protect its creditworthiness profile.

11.7 NCDC has a comfortable capital structure despite lack of external capital infusion and relatively low internal accruals

NCDC has not received any capital infusion from the Government of India except its initial provision. Increase in its net worth has been only through internal capital generation. NCDC gearing has been comfortable, despite relatively low internal capital generation and lack of external capital infusion, and mainly supported by relatively low portfolio growth (CAGR of 9% over last seven years). Although it does not have any cap on gearing levels, the capital structure of the corporation is likely to be comfortable over the medium term. In this backdrop, it should be noted that RBI had withdrawn NCDC's eligibility for priority sector classification from 1st April, 2010, along with the implementation of the Base Rate mechanism and the general hardening of interest rates has undoubtedly impacted NCDC's cost of funds.

Despite the withdrawal of its priority sector classification, NCDC continues to raise funds from the banking channel at very competitive rates (at or around base rate); additionally, during 2012-13, it was also able to raise funds through the Commercial Paper route at competitive cost, which helped NCDC to diversify its resources profile as well as reduce its cost of funds.

NCDC raises funds from banks at competitive rates (at base rate with zero spread or marginal spread over base rate); its cost of funds is comparable to other institutions due to its statutory status and well established relationship with banks. NCDC's borrowings are mainly from banks though given the NCDC's overall financial and business structure and strong parentage, it may tap other modes of borrowings.

NCDC funds long term loans only through its net worth and short term loans (margin money, working capital and current portion of term loans) through bank borrowings which reduce the probability of ALM mismatches in medium term. Its adequate unutilised sanctioned bank lines along with easy capital structure and established relationship with banks is expected to result in a comfortable ALM profile. Further, as a policy, NCDC maintains unutilised working capital lines and lien marks the same to cover repayment of Commercial Paper borrowings.

11.8 Adequate gross interest spreads supported by lower cost of funds

NCDC interest spread is around 1-1.5% with around 95% of its loan book at fixed rate of interest and similarly large part of its bank borrowings either fixed rate or short term in nature, it has a comfortable interest rate sensitivity profile. Further, NCDC does not charge any penalty for pre-payment which facilitates borrowers to foreclose their loans in a declining interest rate scenario. NCDC has also been able to pre-pay/ re-price its bank borrowings during periods of declining interest rate without any pre-payment penalty.

NCDC's financial progress over time can be seen in the Table below. Net interest income increased by 14% in 2015-16 to ₹302 crore vis-à-vis ₹265 crore in 2014-15 supported by expansion in NIMs in the back of a 10% growth in the asset base. NCDC's profitability is further supported by relatively low operating expenses and credit provisioning, NCDC reported a net profit of 6% (-15% in 2014-15).NCDC's return on average net worth remains moderate at around 9.6% during 2015-16. NCDC's earnings have very high concentration towards fund based avenues with non-interest income contributing very less to the earnings of the corporation (non-interest income/ ATA of 0.18% in 2015-16); however its low operating expenses and low credit costs support its profits. Ability of NCDC to maintain net interest margins and its asset quality would have a bearing on the profitability of the corporation. However, given its lending approach, good track record and expectation of regulatory support continuity (in the form of subsidy and grant), it is expected to maintain profitability despite competitive pressure resulting from NABARD's expansion into NCDC's traditional functional areas.

Table 11. 3: Key Financial Indicators of NCDC (Rs. crore)

	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11
Total Assets	8670.00	7872.71	6364.41	5922.40	7125.74	7085.73
Outstanding Loan as per Balance Sheet	8363.20	7585.50	6106.02	5545.99	6082.58	5435.33
Advances to Staff	1.25	1.16	1.17	1.29	1.70	1.57
Total Advances	8364.45	7586.66	6107.19	5547.28	6084.28	5436.90
NCDC Funds	1475.24	1323.68	1179.17	1001.48	874.85	792.93
Net Worth*	1953.58	1774.00	1604.69	1405.43	1266.36	1172.24
Total Income#	690.97	614.62	664.55	609.77	589.51	484.88
Net Profit^	179.58	169.30	199.27	139.07	94.12	96.79
Interest Margin/Average Assets	3.65	3.72	4.54	3.16	2.33	2.69
Non-Interest Income/ Average Assets	0.18	0.21	0.56	0.22	0.16	0.10
Operating expenses/ Average Assets	0.75	0.79	0.94	0.73	0.57	0.72
Operating profits/ Average Assets	3.08	3.15	4.16	2.65	1.92	2.06
Profit After Tax/ Average Assets	2.17	2.38	3.24	2.13	1.32	1.41
Gross NPA (%)	0.73	0.86	1.18	1.64	1.59	1.83
Net NPA/ Net Advances	0	0	0	0	0	0
Provisions/NPA	100%	100%	100%	100%	100%	100%
Total Debit/ Net Worth (Times)	3.37	3.36	2.88	3.10	4.49	4.90
Return on Average Net Worth	9.64	10.02	13.24	10.41	7.72	8.54

* NCDC Fund +Special Reserve, # Total Income less grants received, ^After Taxes

Source: NCDC.

Case Studies

Careful appraisal and screening of projects to take account of all related factors for success has resulted in successful outputs in the case of NCDC projects. Some Case studies demonstrating NCDC's funding of small cooperatives, are given below

11.9.1 Case Study -1: High Recovery Rate and achievement of purpose of assistance - Case Study of Rural Godown sanctioned by Regional Office under delegated powers

11.9.1.1 Brief Background

NCDC Regional Office, Bengaluru sanctioned a total financial assistance of Rs.27 lakh to Srimangala Agriculture Produce Marketing and Processing Cooperative Society Ltd., Srimangala, Kodagu District, Karnataka, in March 2013 for construction of a 900 MT rural godown. The Society was registered on 23.06.1945 with an area of operation covering 14Villages of Virajpet Taluk, Kodagu District, Karnataka.

The Society membership consists of 811 farmers and 5 primary societies with a total paid up share capital of Rs.7.42 lakh, as on 31-3-16. Among the members, there are 58 SC, 5 ST and 25 women.The Society is democratically managed with 13 elected Directors on its Board. The last election was held on 19/05/2015 for a tenure of 5 years.The society is engaged in:

- ✓ Distribution of PDS items & agriculture Inputs to farmers,
- ✓ Meeting the Consumer requirements of members,
- ✓ Storing farmer produce like, paddy, coffee, pepper etc. and providing pledge loans to farmers so as to protect them from distress sales,
- ✓ Undertaking value addition of farmer produce, and
- ✓ Other income generating activities

The financial Status of the Society and salient indicators during last 3 years are as under:

Table 11.4: Financial Status of the Srimangala Agriculture Produce Marketing and Processing Cooperative Society(Rs. lakh)

SN	Particulars	2013-14	2014-15	2015-16
1	Business Turnover	78.64	223.24	241.23
2	Cash Profit	7.17	17.45	8.15
3	Net Profit	4.66	13.76	4.46
4	**Financial Background**			
	a) Paid Up Share Capital	6.13	7.07	7.42
	b) Reserves	20.77	23.02	40.25
	c) Accumulated Profit/Loss	4.66	13.77	4.46
	Net Worth (a+b+c)	**31.56**	**43.86**	**52.13**

The accounts of the society have been audited up to 2015-16 and classified as 'B'.

Prior to the NCDC, sanction the Society had only one godown of 400 MT (including office and rice mill premises), located at its Head Quarter (Srimangala), which was fully utilized for fertiliser /consumer business. The area of operation of the society has cultivation of coffee, Pepper and paddy and accordingly a very good scope for

expanding fertilizer and other input business and extending pledge loans. Additional storage capacity was expects to cater to the need of farmers for keeping their produce - mainly coffee – in order to fetch reasonable prices. Since, the society did not have adequate storage space at Srimangala to cater to the farmers' demand, it proposed to set up an additional godown.

11.9.1.2 Post Project Changes in Operational Efficiency & Business Performance

With increased storage capacity, the society could lease out the storage facilities for different activities and could enhance business operations

A comparative analysis of the financial base of the Society and its business operations during pre-project and project reveals the post-project changes the society has undergone.

Table 11.5: Post Project Changes in Operational Efficiency (Rs. lakh)

SN	Particulars	Pre-project 2011-12	Post Project			Average Annual Growth over Project Year
			2013-14	2014-15	2015-16	
1	Business turnover	22.48	78.64	223.24	241.23	243%
2	Cash Profit	2.02	7.17	17.45	8.15	76%
3	Net Profit	1.92	4.65	13.76	4.46	33%
4	Financial Background					
	a) Paid Up Share capital	5.17	6.13	7.07	7.42	11%
	b) Reserves	9.41	20.77	23.02	40.25	82%
	c) Accumulated Profit	1.92	4.65	13.77	4.46	33%
	Net worth (a+b+c)	**16.50**	**31.55**	**43.86**	**52.13**	54%

11.9.1.3 Specific advantages accrued to the Society

With new infrastructure, the society's image has received a facelift in members' perception and an increase in Member loyalty which lead to a widening of its operations. Not only did the society increase input business to a great extent, but it could start pledge loaning to producers as below:

Table 11.6: Pledge Loan Business by the Society

Year	Qty. of Agriculture Produces Pledged (in MTs)			Pledge Loan Disbursed (Rs.lakh)
	Coffee	Pepper	Total	
2014-15	290	0	290.0	41.3
2015-16	340	4.5	344.5	49.9

11.9.1.4: Other Benefits that have accrued at Society/ Member Level are:

- ✓ The infrastructure has become a rural growth centre thereby enhancing economic activities among the member farmers,
- ✓ Member distress sales of the produce have been avoided by storing produce in the godown,
- ✓ Enhanced member loyalty has been achieved by storing adequate quantity of fertilizer in advance for timely distribution, and
- ✓ Increased trading has resulted in increased indirect employment through enhanced logistical operation

11.9.1.5 Conclusion

Srimangala Agriculture Produce Marketing and processing Cooperative Society Ltd., Srimangala is in operation for the last 70 years and has excellent rapport with the members and general public. The society has been helping supplement rural incomes through its activities of input & consumer distribution, credit to farmers, and other social activities.The society is very prompt in repayment to NCDC because:

- ✓ The Society could generate income out of the infrastructure created,
- ✓ The Society is a rural growth centre having a very good image in its area of operation and hence the society could avail further financial assistance for value addition in coffee hulling and packing unit (which is under commissioning), and
- ✓ Since members' loyalty is very high, the society also does not have defaults from its members.

Quick and easy access to funding by NCDC for a godown has enabled the Society to fulfil the potential that it has to generate greater levels of business. This demonstrates the options that open up with availability of finance, which though not on very easy terms, makes possible for a cooperative to grow profitably and in an economically sound and financially disciplined manner.

11.9.2 Case Study 2: Honey Extraction Unit/Bulk Storage Unit & Honey Collection Centre – Sanctioned by Regional Office under delegated powers

11.9.2.1 Brief Background

NCDC, Regional Director, Bengaluru has sanctioned financial assistance for construction of a Honey Extraction Unit/Bulk Storage Unit and Honey Collection Centre (Cellar and Ground floor) to Coorg Honey & Wax Producer's Cooperative Marketing Society Ltd., Virajpet, Virajpet Taluk, Kodagu District, Karnataka at a project cost of ₹13.73 lakh involving NCDC assistance of ₹10.297 lakh (loan- ₹6.865 lakh and subsidy of ₹3.432 lakh).

The Society was registered on 12.02.1936 and operates in the entire Kodagu District in KarnatakaState. It has 1362 individual members and 50 cooperative members with a total paid up current share capital of ₹2.65 lakh. Among the members there are 115 SCs, 352 STs & 216 women.The society is democratically managed with an 8 member elected Board of Directors.

Objectives of the Society range from arranging for the purchase, sale of honey and wax of the members and others to the best advantage, loans to members on the security of their produce(raw or processed), renting own godowns, buildings, warehouses and also undertaking warehousing business, processing activities and export of honey, wax and processed materials.

The Society supplies its members through their/local societies or directlybee hives, appliances, manure and implements, etc., required for their apiary & farm business, arranging for packing and grading of wax and encourages thrift, self help and cooperation among its members. It also acts as an agent of primary and other societies for recovery of production loans given by them to their members.

The Society encourages members to produce honey scientifically and supports them with branches and village industry depots, godowns, sale shops and showrooms, if necessary in the area of operation of the society. It undertakes all other activities, calculated to further these objectives.

The consistent growth in business and the financial parameters of the Society can be seen from the table below:

Table 11.7: Financial Status of the Coorg Honey & Wax Producer's Cooperative Marketing Society (₹in lakh)

SN	Particulars	2013-14	2014-15	2015-16
1	Business Turnover	140.31	160.48	187.48
2	Cash Profit	53.06	66.78	77.33
3	Net Profit	42.32	52.45	57.85
4	**Financial Background**			
	a) Paid Up Share Capital	2.49	2.56	2.65
	b) Reserves	228.93	271.79	318.99
	c) Accumulated Profit/Loss	42.32	52.45	57.85
	Net Worth (a+b+c)	**273.74**	**326.8**	**379.49**

The Society has its accounts audited up to 2015-16 and has been classified as 'B'. The Society has paid all its dues to NCDC on time.

Prior to NCDC's sanction of this project, the Society had 3 buildings one of which was utilized for Honey processing and packing, and the others for its office and for storing Honey packaging materials. As the two buildings meant for honey processing and storing with tiled roof were very old and in dilapidated condition, the society proposed to construct a new Honey Extraction Unit/Bulk Storage Unit and Honey Collection centre at the same location.

11.9.2.2 The following Changes in Operational Efficiency & Business Performance have been effected post the Project

- ✓ With the establishment of the honey extraction, honey collection & bulk storage units, the quantum of business handled by the society has considerably increased.
- ✓ The net profit earned by the society when compared with base year has also increased substantially due to its capacity to extract, collect & store honey in a more hygienic and scientific way.

- ✓ The facilities extended to apiculturists have also considerably improved.
- ✓ A comparative analysis of the financial base and its business operation during pre-project and project reveals the post project changes that the society has undergone.

Table 11.8: Reflection of the post-project operational efficiency (Rs.lakh)

Sl. No.	Business Activity	Pre-project (2010-11)	Post Project			Average annual growth over project year (%)
			2013-14	2014-15	2015-16	
1	Sale of Honey	78.82	140.31	160.48	187.48	34.46
2	Other business	4.96	6.87	7.47	6.69	8.72
3	Net profit	22.84	42.31	52.45	57.85	38.32

The Specific advantages accrued to the Society:

- ✓ Honey extraction, honey collection & processing in a hygienic & systematic way,
- ✓ Attractive Packing and grading,
- ✓ Loyalty of apiculturists has increased thereby widening its operation, and
- ✓ Improvement in quality, shelf life, brand image (Coorg Honey)

Other Benefits at Society/ Member Level are:

- ✓ Apiculturists could avoid distress sale of their produce by storing their raw & processed honey in the storage facility created,
- ✓ With the increase in capacity, the quantum of honey extractionand processing of honey increased considerably,
- ✓ Assured market for their produce,
- ✓ Better value realization,
- ✓ Increased impact & knowhow support to members, and
- ✓ With the packing and grading of products in an attractive way, society could strengthen its brand name.

11.9.2.3 Conclusion

The Coorg Honey & Wax Producer's Cooperative Marketing Society Ltd., Virajpet is functioning for the last 80 years since 1936 and has excellent rapport with the members and general public. The society has been supplementing rural income through its activities viz., purchase, sale of honey and wax of the members as also by way of extending other social benefits.

11.10 Advantage of Credit Disbursement to Cooperatives through NCDC

Advantages of NCDC's credit advances to cooperative societies are:

- ✓ NCDC's statutory status,
- ✓ Ability to mobilize funds at competitive rates, its track record in maintaining good asset quality (Gross NPA % of 0.73% and nil net NPAs as on March 2016),
- ✓ Moderate gearing levels (3.4 times as on March 31, 2016), and
- ✓ Adequate and stable profitability (PAT/ATA2 of ~2.2% in 2015-16).

NCDC's liquidity profile is commended by the fact that:

- ✓ NCDC funds long term loans through its net worth,
- ✓ Short term loans (margin money, working capital and current portion of term loans) through bank borrowings and commercial paper (CP) which along with adequate undrawn sanctioned bank lines and comfortable capital structure result in comfortable liquidity profile, and
- ✓ NCDC maintains undrawn sanctioned bank lines to cover repayment of CP borrowings which strengthen its liquidity profile and mitigates the refinancing risk.

The key credit challenges for NCDC include:

- ✓ Exposure to relatively small & more vulnerable cooperatives (both banks and societies),
- ✓ High credit concentration risk,
- ✓ Lack of external capital support, and
- ✓ Lack of diversity in earnings due to negligible fee based income.

NCDC's Gross NPA declined from 1.18% as on 2013-14 to 0.73% on 2015-16 and the recovery ratio was 99.9% in 2015-16, more than 99% over last five years despite difficult operating environment and the relatively vulnerable target borrower segment. NCDC's asset quality profile is supported by strict control on fresh NPA generation (very low fresh NPA generation over last five years) as well as recovery from some existing NPAs.

NCDC is engaged in the planning, promotion and development of cooperatives in agriculture and rural oriented activities. NCDC provides financing for production, processing, marketing, storage, export and import of agricultural produce, food stuffs and certain other notified commodities besides income generating stream of activities such as poultry, dairy, fishery, sericulture, handloom etc. NCDC functions through its head office in Delhi and 18 Regional/State offices and a Topic Training Centre at Gurgaon which cover all the states of the Country.

NCDC is a nodal agency for routing various government subsidies/grants to the cooperative sector which sweetens NCDC's lending rates and increases its competitiveness. Further, NCDC has strengthened the diversity of its funding profile, via raising funds through capital market sources such as taxable bonds and commercial papers, apart from reducing the overall cost of funding for the corporation

NCDC provides complete funding for cooperative projects and end to end solutions. It provide working capital loan to regional/ state level marketing federations. It also provides term loans for creation of infrastructure facilities like godowns, cold storages, equipment financing, purchase of transport vehicles boats and other tangible assets. Further, it provides margin money loans to cooperatives to raise working capital finance.

NCDC's loan book was 8,363 crore as on March 2016. It reported a net profit of 180 crore on an asset base of 8,670 crore in 2015-16 against a net profit of 169 crore on an asset base of 7,873 crore in 2014-15. As on March 31, 2016, NCDC had a net worth of 1,953 crore and total borrowings of Rs. 6,576 crore resulting in a comfortable capital structure (total debt/net worth of 3.4 times as on March 2016). Gross NPAs were 0.73% and net NPAs were nil as on March 31, 2016.

In summary, the main reasons for high recovery of loans by NCDC are the following:

- NCDC funding is to the institutions i.e. cooperatives registered under states / central legislation, whether it is through State Government or funding cooperatives directly,
- NCDC helps the State Government and Cooperatives to identify and select suitable projects with likelihood of success in view of its vast experience in promoting & financing projects,
- In case of projects funded through State Government, State Government is the primary borrower and repayment is assured,
- In case of direct funded projects, at the time of consideration of proposal, NCDC strictly adheres to the merit of the project, eligibility parameters, financial position, security, techno-economic viability,
- Screening at multiple level ensures adherence to all norms,
- Only Need based projects, of eligible societies, which can generate enough revenue to service debts and also create additional employment are funded,
- As democratically managed institutions, cooperatives normally have a huge stake in social credibility,
- NCDC clients are in majority of cases repeat clients and any default would make them ineligible for subsequent assistance,
- In the event of default, the threat of legal proceedings is a deterrent to default and causes prompt payment,
- Demand notices are issued by NCDC more than a month in advance of due date and closely followed-up and monitored through telephone, letters, e-mail etc.,
- To avoid audit objections and down grading audit classification / credit rating, the Societies ensure prompt repayments,
- Rebate in interest rate for timely repayment and charging at normal interest and penal interest on defaulted amount for period of default are major reasons for timely repayment,
- Recovery mechanism and schedules are explained to clients at an early stage of the funding cycle. Constant guidance and relationship is maintained throughout during implementation to ensure rightful utilization of funds,
- Connect with State Governments and cooperatives beyond financing business by extending help in the form of promotional and developmental activities shows high customer sensitivity and concern,
- NCDC is an ISO certified organization i.e. totally system run, following tenets of transparency, accountability, efficiency and concern for customers which help it to operate as an effective Development Financing Institution for cooperatives,
- Consistent good credit rating and its status of a statutory government organization helps NCDC to mobilize funds at competitive rates and further integration of some subsidy from Government of India with its loan for infrastructure based projects makes the effective cost of borrowing from NCDC low / comfortable for projects leading to project profitability, facilitating good recovery, and
- NPA norms in NCDC are liberal as compared to other financial Institutions, as it follows the norms of 1 year principal or 6 months interest overdues for NPA classification

12. Impact of NCDC Assistance to Cooperatives: A Primary Level Account

It is important to adjudge and take note of result of NCDC funding in terms of its beneficial impact on the assisted cooperatives. NCDC has assisted the cooperative movement in a holistic way, not only advancing financial support, but also providing effective technical, logistic and marketing support in an effective manner. A primary survey by the NCAER in seven of the strategic states of India, covering cooperatively under-developed as well as developed states attempts to gauge the impact of NCDC assistance on the assisted cooperatives in different sectors and different schemes.

12.1 Prime focus on Rejuvenating Cooperative Activities: Insight from NCAER Primary Survey

A major finding of the survey is that NCDC has remained the prime force responsible for rejuvenating cooperative activities, despite cooperatives being disadvantaged by moving into the block of non-priority sector since 2010, which ideally is a misplaced concern. The survey conducted by NCAER of the primary units was a purely probabilistic one, with the sample drawn randomly from the list provided to the Field Officers of NCAER by the State Level Cooperative Federations and NCDC Regional Offices.

The basic objective of the primary survey by the NCAER is to have a feel of the intensity and dimension of cooperative activity in the selected states to assess the magnitude of the financial gap, if any, that exists at various levels. The study was conducted through canvassing structured questionnaires for (a) Non-Credit Cooperative units and (b) the members associated with these cooperatives. The reference year for the study is 2013-14.

The primary survey was restricted to 316 randomly selected cooperative units and members associated with these selected cooperatives also drawn on a random basis. In all, 1758 members were selected to assess the degree of their association with cooperatives and the benefits that accrued to them. In view of the small sample size, the primary enumeration from the field may be considered as indicative. The primary level enumeration by NCAER was carried out during February-March, 2015 in collaboration with the Regional Offices of NCDC as well as the Office of the Registrar of Cooperative Societies in the states of

- Himachal Pradesh
- Assam
- West Bengal
- Chhattisgarh
- Gujarat
- Maharashtra
- Kerala

In each of these States, NCAER researchers and supervisors carried out the survey with the help of Field Investigators. State-wise percentage distribution of cooperative units and the primary members interviewed is as follows:

Table 12.1: State-wise distribution of cooperative units & primary members (%)

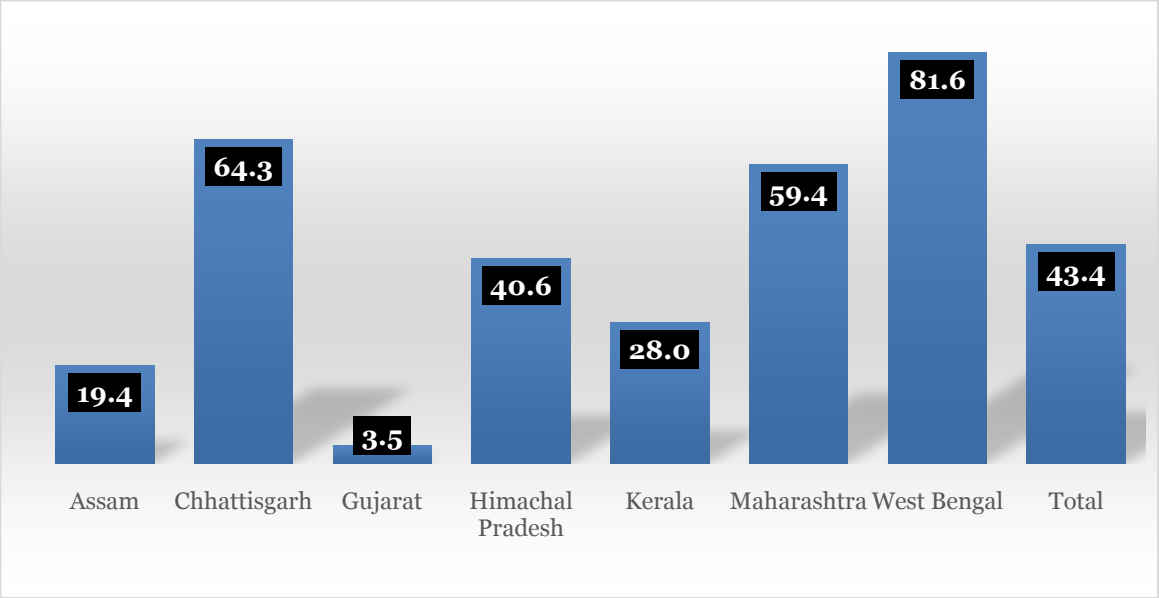
States	Cooperative Units	Primary Members of the Cooperative Units
Himachal Pradesh	4.7	4.3
Assam	4.7	3.9
West Bengal	10.4	27.9
Chhattisgarh	4.7	4.4
Gujarat	27.5	8.8
Maharashtra	37.3	41.4
Kerala	10.4	9.3
Total	100.0	100.0

Source: NCAER Case Study.

Apart from the primary enumeration, fact finding reports for NCDC's flagship programme ICDP (Integrated Cooperative Development Programme) and a case study linked to NCDC assistance for purchase of transport vehicle and godown assistance for designated societies are narrated below.

Members who have benefitted from the extended cooperative activities resulting from NCDC loans are shown in the following figure

Figure 12.1: Members (%) benefitted from expanded cooperative activities from NCDC Loan



Source: NCAER.

It may be noted that Gujarat is a relatively affluent State in terms of cooperative spread and development and cooperatives in the State are largely self-reliant. The requirement of cooperative loan (funded by NCDC) too is the lowest in this state. The primary survey by NCAER depicts highest penetration of cooperative loan in the state of West Bengal, followed by Chhattisgarh, Maharashtra and Himachal Pradesh.

12.2 Impact of NCDC Assistance: AClose look at the Aggregative Level Performance

The study supported the hypothesis that NCDC support (direct as well as indirect), has resulted in cooperative growth over the years in proportion to the length and breadth of investment and productivity. It has served to enhance productivity and profitability of the cooperative units by:

- Incentivising growers to produce more
- NCDC officials are constantly in touch with the Apex bodies
- NCDC assesses the need of infrastructure and support to enhance the capacity of the same by providing working capital or margin money assistance to the same.

Though NCAER survey was restricted to only a select few cooperatively developed and under-developed states, the clear finding is that cooperative activities, despite variation, exhibit a distinct trend of occupying increased space, mainly as a result of specialised support from NCDC.

12.2.1 State level impact: analyses of turnover and activity-wise performance

Analysis of deflated percentage of turn over of the States to total turn over worked out for the States surveyed from 2011-12 to 2013-14 shows that Assam has the lowest turnover among the 7 states selected for the case study. However, over time, its turnover contribution is increasing. The same holds true for Himachal Pradesh, West Bengal and Gujarat. States like Chhattisgarh and Kerala show variation but enhanced their share distinctly in 2013-14. Maharashtra although still accounting for a large share in turnover, is the only state where the contribution has been sliding over time, while Gujarat has shown astounding improvement of cooperative activities, with its share in total turnover touching almost 48% in 2013-14.

Table 12.2: Distribution of turnover (deflated %)

States	2013-14	2012-13	2011-12
Himachal Pradesh	0.35	0.15	0.09
Assam	0.15	0.14	0.07
West Bengal	1.43	1.27	0.78
Chhattisgarh	0.23	0.21	0.40
Gujarat	47.70	38.83	28.83
Maharashtra	46.44	57.96	67.63
Kerala	3.70	1.44	2.21
All	100.00	100.00	100.00

Source: NCAER

It may be interesting to note the yearly value of all the cooperative activities linked to procurement for each of the states. The following figure depicts that Gujarat has generated the highest average value of procurement and marketing activities (Rs. 7,788 lakh), followed by Maharashtra (Rs. 1555.5) lakh) and West Bengal (Rs. 509.90 lakh) in 2013-14. In the field of processing, Gujarat topped the list with average value generation of ₹4472 lakh, followed by Maharashtra (Rs.691.30 lakh) and West

Bengal (Rs.92.30 lakh). Production activity is observed to be the highest in Gujarat (Rs. 6,533.80 lakh) followed by Maharashtra (Rs. 330.20 lakh). The lowest value generated through production is in Assam (less than Rs. 1 lakh on average). In all respects, Gujarat is observed to be a State where cooperative activities have generated massive impact in terms of value generation, while states like Kerala, Himachal Pradesh, Chhattisgarh, and Assam have huge potential but need a further supportive environment to push through the process. In all, on an average, cooperatives have created value amounting to ₹2091 lakh which in view of its importance as an inclusive entity should be enabled to further increase.

Table 12.3: Average value of cooperative activities generated by the States: 2013-14 (Rs. Lakh)

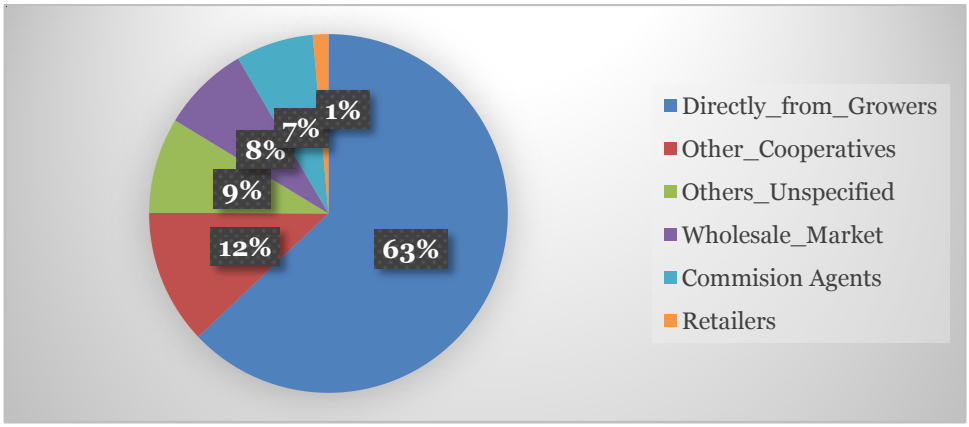
	Average value of procurement and marketing	Average value of processing	Average value through production	Average value from overall activities
Himachal Pradesh	149.1	12.5	60.2	73.9
Assam	135.1	76.3	0.7	70.7
West Bengal	509.9	92.3	21.0	207.7
Chhattisgarh	87.3	2.3	84.5	58.0
Gujarat	7788.0	4471.9	6533.8	6264.6
Maharashtra	1555.5	691.3	330.2	859.0
Kerala	385.6	2.9	34.7	141.1
All	2836.2	1503.6	1932.7	2090.8

Source: NCAER

12.3 Impact of NCDC Assistance: AField Level Interpretation

NCDC support for marketing and inputs has enabled almost 63% of produce to be procured directly from the growers (Fig 11.6). Other cooperatives come next with 12% and only 8% is procured from the wholesale market. Indisputably, the growers are the chief beneficiaries of the cooperative procurement activities.

Figure 12.2: Sources of procurement of the cooperative units

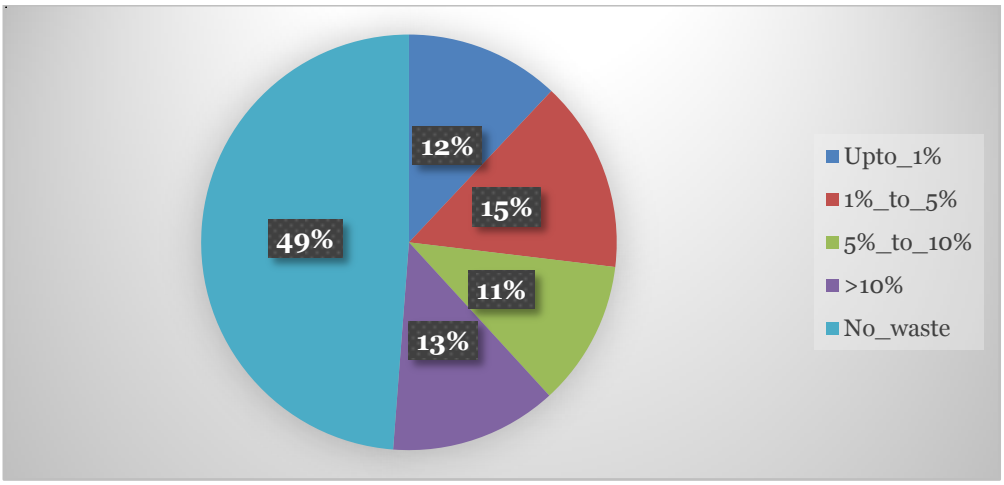


Source: NCAER.

All these critically point to the fact that despite NCDC's seemingly stressful dealings at the macro level to retain financial judiciousness, at the ground level, NCDC has extended all-possible support to take forward the cooperative activities that are important in raising productivity and enhancing the level of performance.

NCDC's role is also prominent in reducing the level of wastage in cooperative activities. Field data from NCAER reveals that average wastage in cooperative operations is just around 3.7% of the products, far below the present wastage level in the overall economy. About 49% of the units operated at full capacity. However, there are units that have reported more than 10% of losses due to wastage.

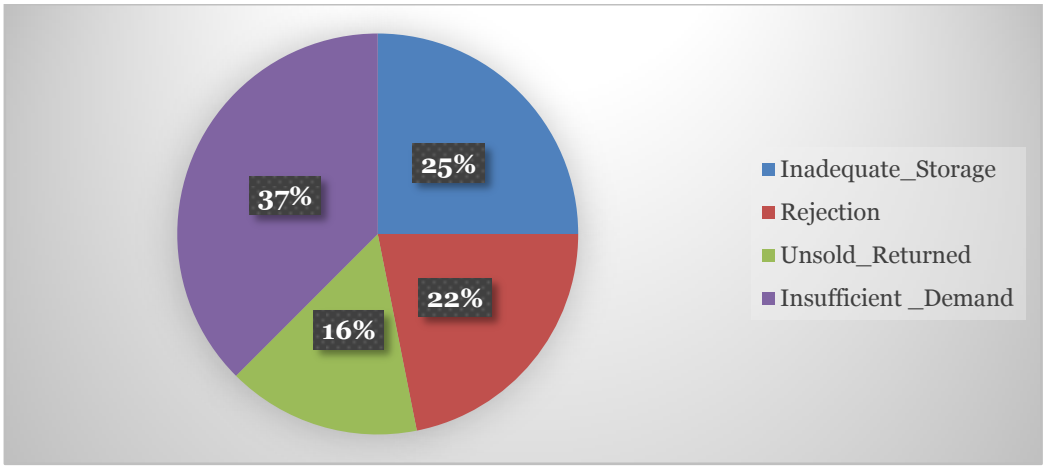
Figure 12.3: Level of wastages (%) in marketing, processing and storage cooperative units



Source: NCAER.

Despite the low margin of wastage, the reasons for wastage are many. Around 37% of the respondents identify insufficient demand as a major reason, while 25% say that wastage occurs due to inadequate storage. Rejection by potential buyers happens in 22% cases, **while products return on expiry and remaining** unsold account for 16% cases.

Figure 12.4: Reasons for wastage in cooperative units as perceived by the respondents



Source: NCAER.

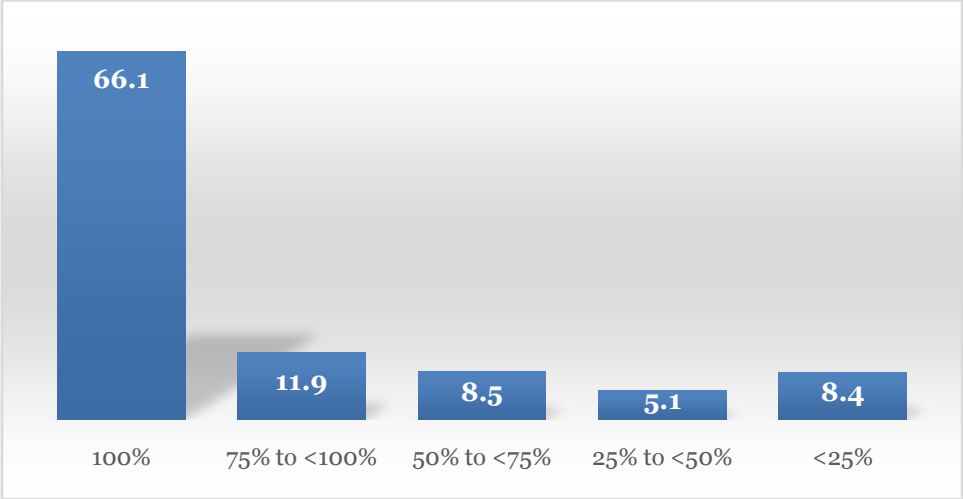
In view of the reasons for wastage revealed by the survey, NCDC's potential role to augment storage capacity is immense. NCDC has the domain knowledge and expertise that could be critical inputs to expand the support base of the cooperatives in raising infrastructure capacity.

Capacity Utilisation

Timely financial and promotional support extended by NCDC has helped enhanced cooperative utilisation. The information on capacity utilisation in respect of processing, marketing and storage have been collected under five broad ranges, viz. 100%, 75 % to 100%, 50% to 75% , 25% to 50% and less than 25%.

It is noted that more than 66% of the units have utilised capacity at 100% level, which is a pointer to NCDC's crucial role in enhancing capacity utilisation, which is an important indicator of productivity.

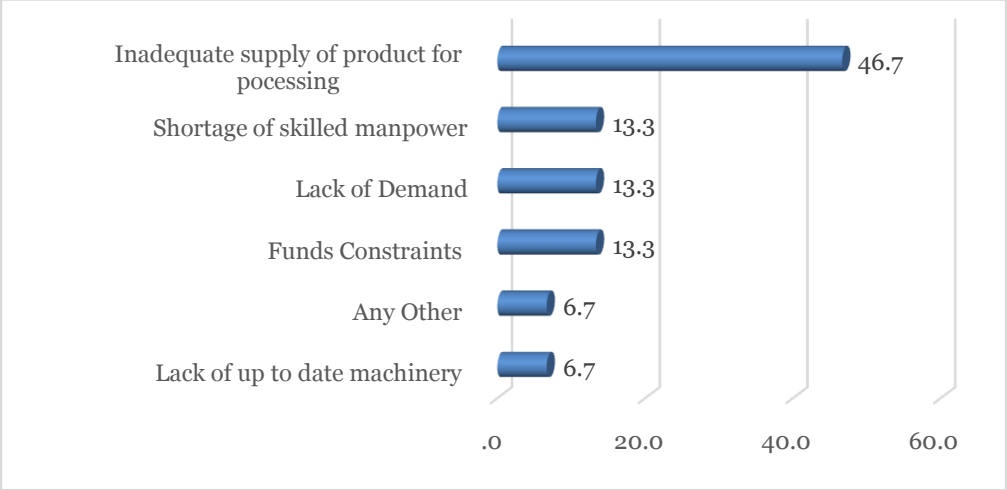
Figure 12.5: Capacity utilisation of the surveyed cooperative units



Source: NCAER.

Among the 34% of the responding units, who utilised less than full capacity, the majority (46.7%) blamed the 'inadequate supply of the product for processing'. This is followed by other reasons such as shortage of skilled manpower, lack of demand etc. However, it is important to note that fund constraint is reported by 13.3% of the under-utilised units, while lack of up to date machinery was reported by 6.6% units.

Figure 12.6: Reasons for underutilisation of processing capacity (%)



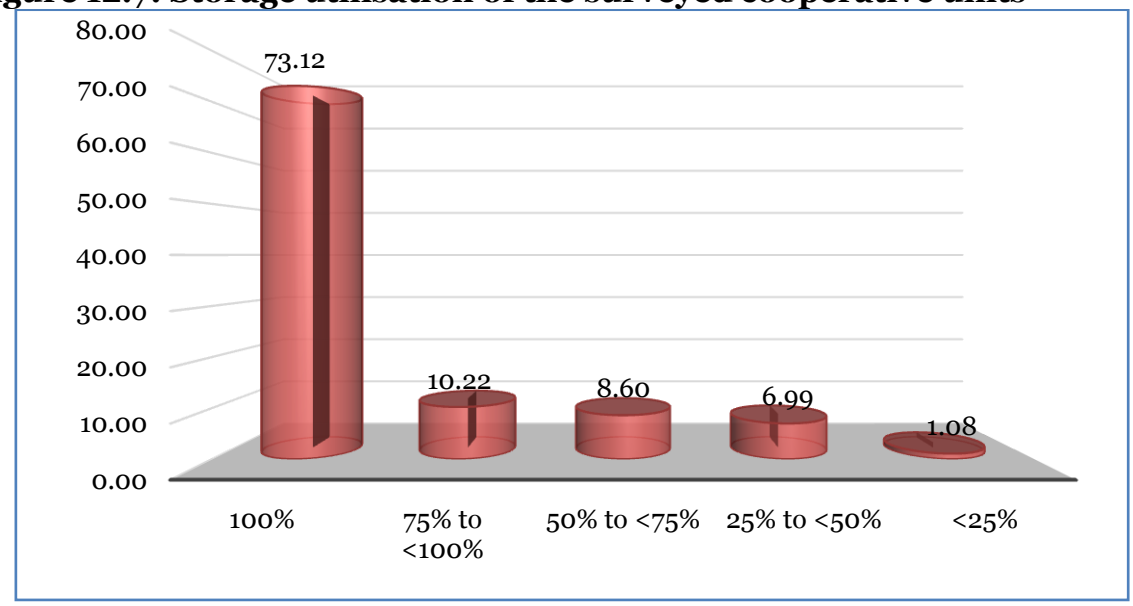
Source: NCAER.

Storage Utilisation

Financial support from NCDC has helped cooperative units to utilise storage capacity to the fullest level. The information on storage capacity utilisation has been collected under five broad ranges, viz. 100%, 75 % to 100%, 50% to 75%, 25% to 50% and less than 25%.

That more than 73% of the units have utilised storage capacity up to 100% is an achievement for NCDC which has also devised specialised schemes to support units for better utilisation as well as newer expansion of storage capacity.

Figure 12.7: Storage utilisation of the surveyed cooperative units

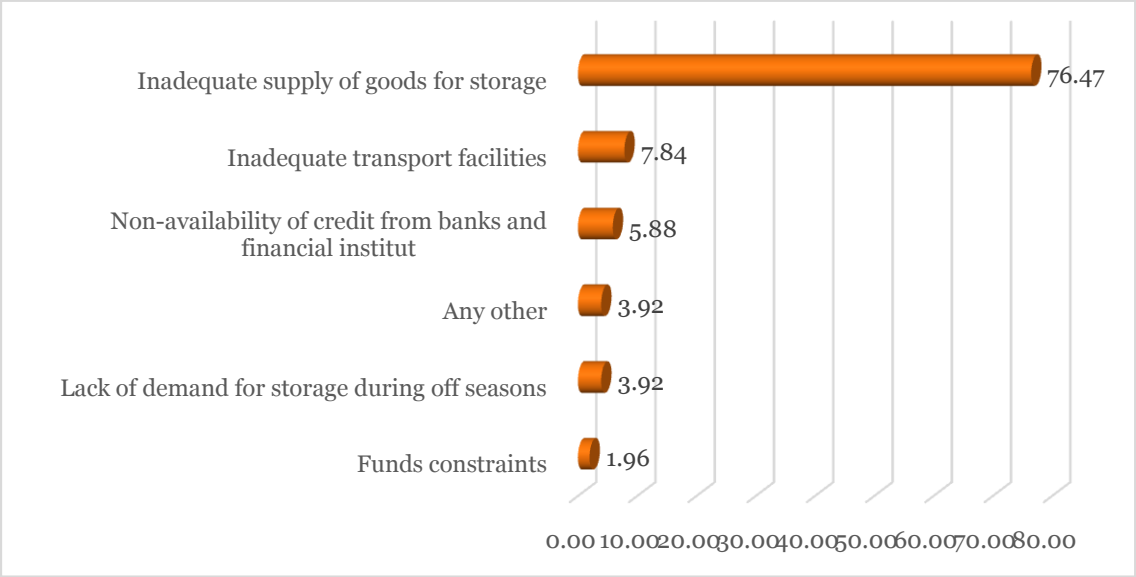


Source: NCAER.

The main reason cited for lower utilisation of storage capacity is the inadequate supply of products for storage (76.5%). Funds constraint (1.96%), inadequate transport facility (8%) and non availability of bank credit (6%) together accounting

for 15.96% of reasons for low capacity utilisation are not an inconsequential figure and a clear pointer to an unfulfilled credit need.

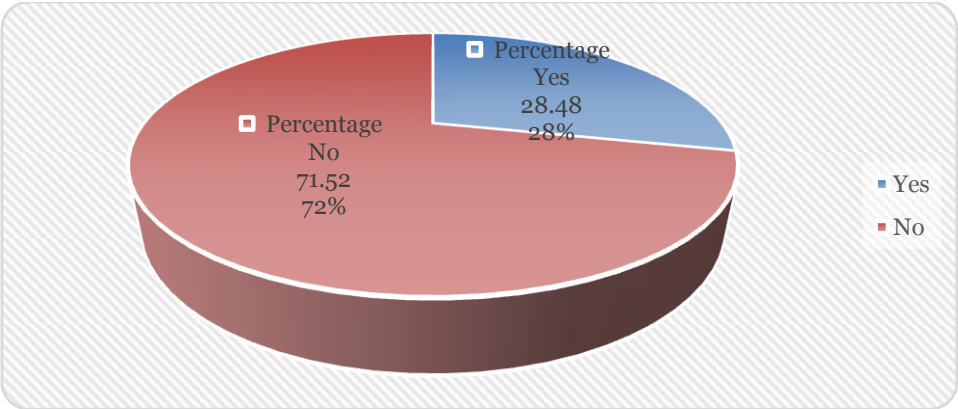
Figure 12.8: Reasons for underutilisation of storage capacity (%)



Source: NCAER.

The question regarding existence of any problem in availing credit from NCDC for increasing their storage capacity, **elicited the response from 72% of the units that they have not faced any trouble in getting sanction**.

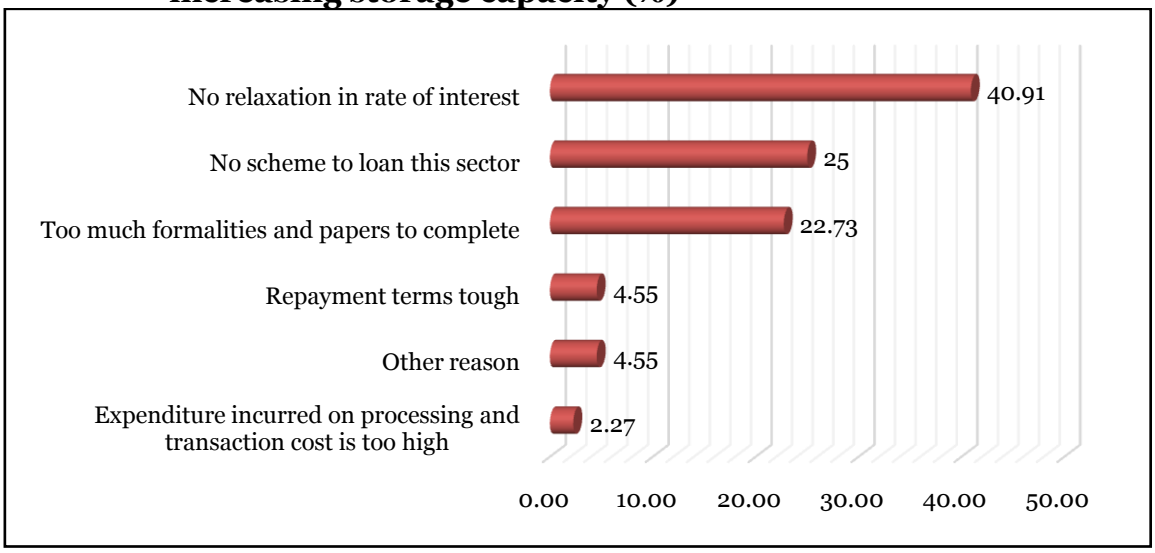
Figure 12.9: Opinion on credit constraint for increasing storage capacity (%)



Source: NCAER.

Problems faced by 28% who reported facing problems in availing credit for increasing their storage capacity, featured 'no relaxation in interest rates' as a major constraint for about 41% of the respondent cooperatives. Other major reasons (25%) cited are, 'no scheme for loans to the activity of the cooperative.

Figure 12.10: Nature of problem for getting credit sanction for increasing storage capacity (%)



Source: NCAER.

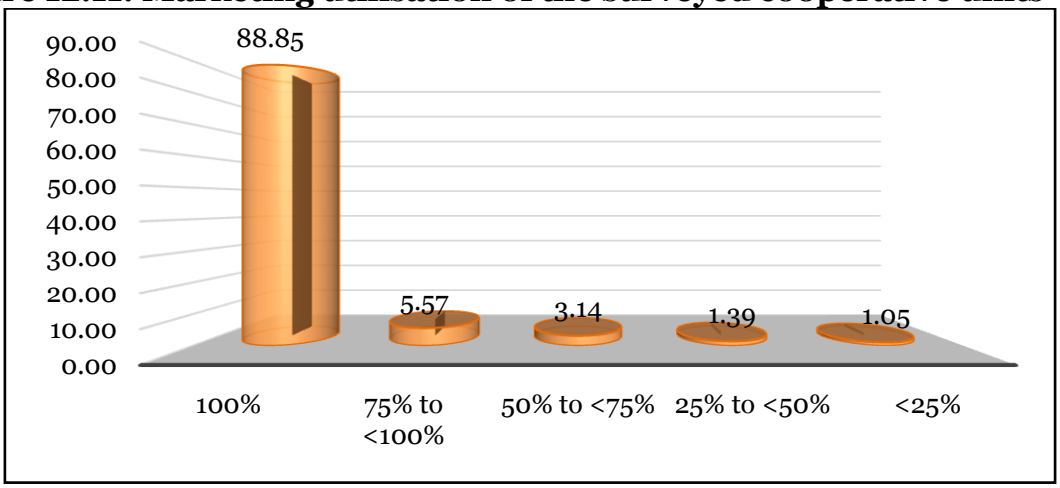
Capacity Utilisation of the Marketing Space

Reliable financial support from NCDC was cited by cooperative units as a main reason for utilisation of marketing capacity to the fullest level. The information on marketing capacity utilisation too has been collected under five broad ranges, viz. 100%, 75 % to 100%, 50% to 75%, 25% to 50% and less than 25%.

It is noted that about 89% of the units have utilised marketing capacity up to 100% due to the specialised schemes of NCDC and input support for better utilisation and expansion.

About 55.6% of the remaining under-utilised (11%) units attribute inadequate supply of goods for marketing to be a major cause for underutilisation. Other reasons are inadequate transport facilities (5.64%), funds constraints (13.9%), non-availability of credit from banks and financial institutions (2.8%), low profitability of marketing (5.6%) and other reasons (16.7%). Accordingly, the gap in funding, which can be bridged by NCDC is around 22.34%.

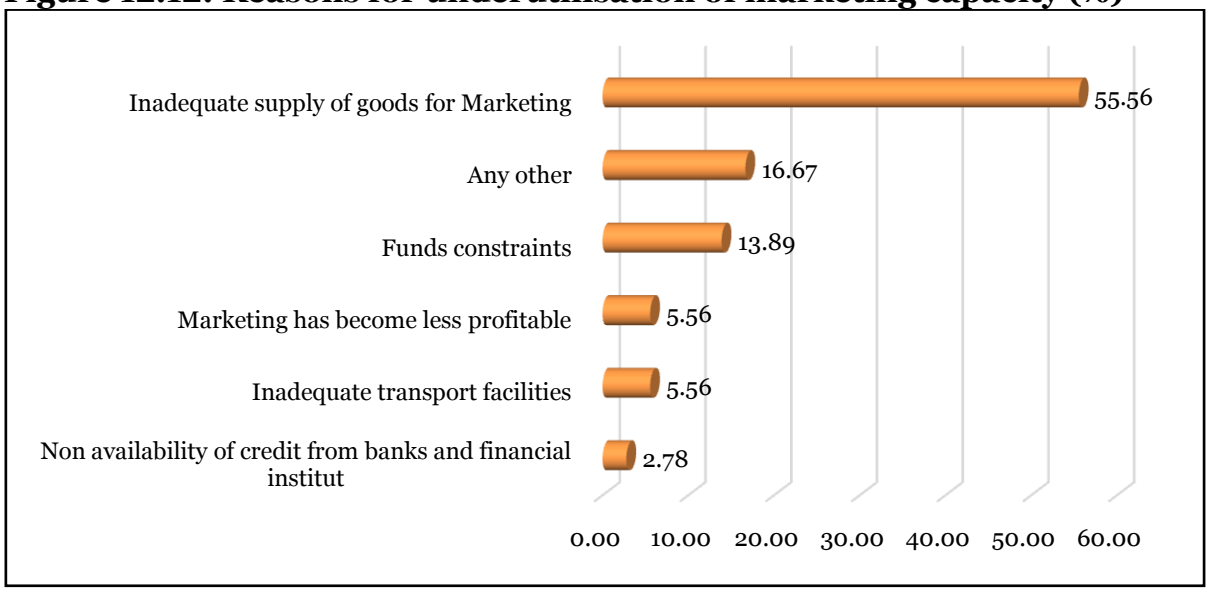
Figure 12.11: Marketing utilisation of the surveyed cooperative units



Source: NCAER.

Units having less than full capacity utilization in marketing have cited various reasons, of which inadequate supply of goods for marketing is the chief reason, and 14% attributing it to fund constraint.

Figure 12.12: Reasons for underutilisation of marketing capacity (%)



Source: NCAER.

Apart from the primary enumeration at the aggregate level, a few case studies have been carried out across states to ascertain the impact of NCDC assistance at the ground level. Section 12.4 to 12.6 below narrates these.

12.4 Impact of NCDC Assistance: Fishery cooperatives in Kerala

With a coastline of 590 km (8.3% of total Indian coastline), a fishermen population of 10.02 lakh (7.71 lakh marine and 2.31 lakh inland), of which 2.31 lakh (1.79 lakh marine and 0.52 lakh inland) are active fishermen (as per Department of Fisheries Statistics - 2014-15), the production of fish from the State was 7.08 lakh MT (5.22 lakh MT marine and 11.86 lakh MT from inland resources) during 2013-14.

The fisheries sector plays a vital role in the economy of KeralaState contributing 0.85% of the Gross Domestic Product (GDP) of the State. During 2013-14, Kerala contributed 16.84% (1,65,698 MT) by quantity and 15.58% (Rs. 4706.36 crore) by value of the total marine products exports from India.

12.4.1 MATSYAFED and Its Role

Kerala State Cooperative Federation for Fisheries Development Ltd., (MATSYAFED), Thiruvananthapuram was established as an apex federation in 1984. MATSYAFED has 666 primary fishermen cooperative societies affiliated to it, of which, 340 are marine, 193 inland and 133 are fisherwomen societies. The share capital as on 31/3/2015 was Rs. 173.04 crore. As a federation, it has created strong linkages with affiliated cooperatives and strives to improve the socio-economic conditions of fishermen. It has an elected Board of Directors with women representation.

The main business activity of Societies/ Federation includes:

- Implementation of State Govt. assisted / other institutions including NCDC fisheries projects/ schemes including ornamental fishery,
- Processing, storage, marketing & export of fish and fishery products,
- Manufacture and sale of fishing nets, Out Board Motors (OBM) and accessories,
- Servicing facilities for OBM,
- Management and operation of community peeling sheds, fish farms and prawn hatcheries,
- Group accident insurance, input insurance scheme, and Vanitha bus service for fisherwomen vendors,
- Running of an Aquarium, and
- Sale of 2T oil, running of diesel & kerosene bunks, Vyasa stores, fresh fish sale points and mobile units, etc.

MATSYAFED is actively involved in distribution of fishing inputs to fishermen through its primaries, operating input security scheme, providing working capital for fish marketing, strengthening of primary cooperatives by providing infrastructural facilities, extension and training etc.

12.4.2 NCDC's funding of Fishery Cooperatives – Progress & Achievements

NCDC has a long association of over three decades of financing MATSYAFED mainly for implementing both inland and Integrated Marine Fisheries Development projects.

The purpose of NCDC's assistance to MATSYAFED has been to facilitate:

- ✓ Providing a mix of services to member fishermen through the Primary societies, create awareness and social participation for community benefits,
- ✓ Intervention in the primary and secondary marketing chain, and
- ✓ Developing the primary cooperatives as self-reliant profit centres through services marketing and requisite infrastructural facilities at the primary level in coastal area.

NCDC has so far implemented 17 projects in Kerala involving financial assistance of Rs. 31726.28 lakh, all but one of which has been completed.

NCDC assistance under various projects is passed on to the fishermen who are members of primary co-operative societies affiliated to MATSYAFED. The primary societies are the grass root level organizations in the two tier structure of the Federation and are responsible for actual selection of beneficiary fishermen groups, distribution of fishing inputs, other financial assistance to members & also in conducting of the beach level fish auction. They also undertake continuous monitoring, supervision and recovery of loan assistance from the fishermen. NCDC assistance to the societies and beneficiaries is provided based on well-defined norms and unit-wise viability. The IRR of units ranged from 17.4% to 35.11% and DSCR from 1.71 to 2.01 for the various components assisted in last project sanctioned for 2015-16.

Details of primary upgradation of fishery inputs under NCDC Projects since 1985 are given below:

Table 12.4 NCDC Assisted Projects, Fishing Inputs and Investment (Rs. lakh)

Scheme	No. of Benefic-iaries	Crafts		OBM*		Webbings	Access-ories	Total Investment
		No.	Cost	No.	Cost	Cost		
IFDP I	4577	395	94.610	819	144.510	110.140	56.780	406.040
IFDP II	7223	406	175.270	816	242.400	293.800	92.210	803.680
IFDP III	20795	1962	1876.940	3687	630.330	818.480	131.960	3457.710
IFDP 98-99	4615	682	354.290	1051	599.310	217.270	31.590	1202.460
IFDP 99-00	3006	441	319.490	436	260.160	188.110	23.330	791.090
IFDP 00-01	5229	313	251.160	1087	723.910	355.120	33.100	1363.290
IFDP 01-02	5417	608	518.320	541	347.220	543.420	63.780	1472.740
IFDP 03-05	6086	409	421.070	954	611.080	534.830	33.020	1600.000
IFDP 06-07	3255	166	200.000	461	300.000	448.000	52.000	1000.000

Source: NCDC Note: *OBM – Out Board Motors.

NCDC's assistance has covered about 45% of the sea going active fishermen in the State of Kerala and about 18% of the traditional sector's fish catch is being auctioned through beach level auction system of MATSYAFED.

With funding by NCDC for integrated programmes for primary cooperatives, the beach level auctions by fishermen has seen a considerable increase over the last 5 years as shown below:

Table 12.5: Fishing Output and Values

Year	Quantity (MT)	Value (Rs.lakh)	No. of Members
2010-11	91,724	21,736	46,149
2011-12	97,956	26,207	44,079
2012-13	1,05,101	33,959	47,713
2013-14	84,775	32,141	43,331
2014-15	66,677	26,766	40,231
2015-16 (upto 30/09/15)	26,062	13, 821	39, 528

Source: MATSYAFED.

In a few districts, MATSYAFED has also successfully intervened in procurement and sale of high value fish/prawns through tie-up with export agencies. Infrastructural facilities for storage and handling harbours/landing centres and temporary storage facilities at primary cooperatives modernised of fish markets and chain of hi-tech fish retail outlets etc. have been set up.

The Federation's own financial progress shows that it is working effectively through involvement of primary cooperatives in business.

Table 12.6: Audited Financial Performance of MATSYAFED (Rs lakh)

SN		2010-11	2011-12	2012-13	2013-14	2014-15
1	Business Turnover	10972.19	13237.75	15801.52	16280.01	17267.66
2	Trading Profit	971.39	1162.08	1408.69	1581.16	1938.26
3	Indirect Income	857.95	1095.28	1214.92	1369.81	1125.79
4	Profit before Int., Dep. & Tax	1016.81	740.47	984.72	1000.08	1180.68
5	Interest	511.95	441.62	649.24	609.44	917.87
6	Cash Profit	504.86	298.85	335.48	390.64	262.81
7	Depreciation	84.65	192.83	161.05	157.47	176.18
8	Profit before Tax	420.21	106.02	174.43	233.17	86.23
9	Income Tax	0.00	0.00	0.00	0.00	0.00
10	Net Profit	420.21	106.02	174.43	233.17	86.63

Source: MATSYAFED.

The loan repayment of MATSYAFED to the State Government was 100% as on 30.9.2016. The overall repayment position of loans in respect of all on-going NCDC assisted IFDP projects from primaries to MATSYAFED was 84%.

NCDC assistance has helped the fisher community of Kerala through:

- ✓ Requisite infrastructure to primary fishermen cooperatives for effective operations and marketing,
- ✓ Increase of Beach level auctions over the years, both in terms of quality and value, helping achieve best prices for fishermen thereby increasing their income,
- ✓ Direct and indirect benefit to 12,150 active fishermen and around 10,000 fisher-folk, and

- ✓ Strengthening of cooperative linkages of MATSYAFED, its primaries and fishermen members by way of auction commission, supply of fishery requisites, consumer articles, fish marketing and capacity building of target group.

With around 55% of active fishermen in the State yet to receive any assistance from NCDC, the potential for funding fish cooperatives in Kerala is immense.

Box 12.1: Evaluation and impact assessment for Central Sector Scheme of Gramin Bhandaran Yojana

Excerpts of an evaluation and impact assessment for Central Sector Scheme of Gramin Bhandaran Yojana under 11th Plan conducted by Global Agri. System Pvt. Ltd. for Directorate of Marketing and Inspection (DMI), Department of Agriculture, Cooperation & FW & Ministry of Agriculture, Government of India

The credit linked subsidy scheme was launched by GOI primarily to establish rural godowns to ensure following advantages:

- Scientific storage leads to maintain quality fo foodgrains
- Safety from rodents & insects
- Realisation of remunerative prices
- Farmers can expect pledge loan against stored products
- Creation of employment in rural areas
- Timely availability of inputs

The scheme had made impressive progress since inception by establishing 28087 godowns in the country creating storage capacity of 31.71 million MT as on 31.03.2012.

Under the scheme, 3648 godowns were constructed with NCDC assistance mainly in Bihar, Haryana, Tamil Nadu and Uttar Pradesh, out of which 169 were selected for the study. The Report revealed that NCDC assisted newly constructed godowns accounted for 84.02% of all the projects sanctioned by NCDC under RGS whereas 15.98% godowns were renovated.

All the godowns evaluated during the study were found to be fully utilized, however, the period of utilization varied from 1 to 6 months which is quite obvious considering the varied agro-climatic condition & diverse agricultural practices in the country. The Average Capacity Utilization of all surveyed godowns was 76.02% and the average capacity utilization of godowns assisted by NCDC was 70.50%. It was revealed by the survey that most of the godowns were being used for storage of own produce and only spare capacity was being offered to other users. Majority of the godowns of cooperatives were being used for inputs storage.

The study as reported by farmers during interaction revealed success of programme in achieving reduction in wastage to the extent of as high as 75% and 30% on the lower side. The project also resulted in impressive employment generation i.e. 13 personnel per crore of subsidy. The average employment per project was seen to be 6.25 persons.

About 52.5% farmers reported of good experience after storing crop/commodities in godowns, wherever they used it, as compared to the traditional storage methods. Quality Control measures such as frequent spraying of insecticides, fumigation and stacking is being adapted and practiced in most of the godowns, which were surveyed. Pledge loan against stored stocks was not yet a popular practice. A positive impact on price realization was reported by 62.3% users.

12.5 Impact of NCDC Assistance of Integrated Cooperative Development Project (ICDP) projects in Hanumangarh (Rajasthan), Jhabua (Madhya Pradesh), Salem (Tamil Nadu)

An important Scheme of the NCDC, "Integrated Cooperative Development Project (ICDP) Scheme" was introduced in the year 1985-86 for:

- ✓ Development of Primary Agricultural Credit Societies as multi-purpose self-reliant entities,
- ✓ Development of allied sector cooperatives, and
- ✓ Development of viable functional linkages among cooperatives.

Under the scheme, an integrated area-based approach is adopted for development of cooperatives in a selected district. A Macro Plan for the selected district is prepared, keeping in view the local resources and needs. Assistance as a package includes – infrastructural needs, funds for business development and HRD aspects. NCDC funding of the ICDP is through the State Government and involves both loan and subsidy component. The loan is for creation of infrastructure facilities such as godowns, banking counter, transport vehicles, small processing units, etc. and strengthening of share capital / providing margin money for augmenting the business of the societies. Subsidy is provided for project implementation, manpower development and training, monitoring and incentives.

12.5.1 Objectives of the study of the impact of ICDP

- ➢ To assess the quality of project implementation of various components of the ICDP in Hanumangarh (Rajasthan), Jhabua (Madhya Pradesh) and Salem (Tamil Nadu).
- ➢ To examine the structural constraints in achieving the project objectives and strengthening the rural credit cooperatives with institutions to meet the credit needs of the rural poor and disadvantaged groups.
- ➢ To document case studies and success stories of cooperatives in these States.

12.5.2 Methodology used for the study involved:

The study was carried out in three NCDC-ICDP assisted Districts, one each in Rajasthan, Madhya Pradesh & Tamil Nadu.

- Village level in-depth study of sample credit cooperative structures.
- Data collected from the Primary Agriculture Cooperative Societies (PACS), Primary Agricultural Marketing Societies (PAMS), Primary Land Development Bank (PLDB), Consumer's Cooperative, District Central Cooperative Bank (DCCB), Women Cooperatives, Scheduled Caste & Scheduled Tribe (SC & ST) Cooperatives were covered.
- Secondary data and information collected from the Project Implementing Agency (PIA).
- Structured interviews, focused group discussions (FGD) and physical inspection of documents at the district-level.
- At the DCCB level, the key informants with whom interaction took place included the Chairman/Senior Manager of DCCB, General Manager, Deputy Manager, Development Officer and the Customers.

12.5.3 Sampling and techniques of data collection

- A sample study and field visit of 10% of the assisted cooperatives and more than 2 cooperatives has been covered under the study.
- A checklist and a model questionnaire were administered to gather required information from the selected societies.
- The study included pre-project and post project comparison in assisted activities by selecting suitable indicators.
- A SWOT Analysis of the ICDP at various levels.
- The study has employed the Compound Annual Growth Rate analysis (CAGR) as a useful measure to capture growth of cooperative business over various time periods.

12.5.4 Hanumangarh (Rajasthan)

The following section gives a brief account of the results emerging from the ICDP Impact Study of Hanumangarh District in Rajasthan. Table 12.9 gives a cooperative profile of Hanumangarh, and a frequency distribution of the various sector specific cooperatives that together account for a total of 839 cooperatives of the District.

Table 12.7: Cooperative Profile of Hanumangarh District

	Type	Number
1	Primary Agricultural Credit Cooperatives(PACS)	198
2	Primary Agricultural Marketing Societies	9
3	Primary Milk Producers Cooperative Societies	511
4	Milk Cooperative Union	1
5	Primary Coop Agri. & Rural Development Banks	1
6	Thrift and Credit Societies	9
7	Primary Coop. Consumer Store	8
8	Wholesale Cooperative Consumer Store	1
9	Farming Cooperative Societies	5
10	Industrial Cooperative Societies	26
11	Mahila Cooperatives(Saving Mini Bank)	69
12	DCCB	1
Total		**839**

Source: ICDP Impact Study of Hanumangarh District in Rajasthan

The cooperative societies that have reaped benefits as a result of the implemtnation of the ICDP are described below followed by a brief assessment in quantitative terms of the impact of the assistance on the various societies engaged in multifarious activities.

Table 12.8: Societies Benefited with the ICDP (Rs. lakh)

	Sectors	Targeted financial amount	Financial amount utilized
1	PACS	1092.16	1238.21
2	PAMS	187.50	220.00
3	DCCB Hanumangarh	268.14	275.10
4	PLDB	103.00	119.20
5	Wholesale Consumer/ Bhandar	24.40	34.40
4	Primary Consumer Cooperative	5.00	0.00
6	Primary Milk Coops/(Dairy Sector)	285.00	0.00
7	Milk Union (Sriganganagar Zila Dugdh Utpadak Sahakari Sangh Ltd,	65.00	0.00
8	Zila Dugdh Utpadak Sangh Hanumangarh	0.00	135.80
9	Service (Ahinav) Cooperative Societies	5.00	0.00
10	Women Cooperatives	50.00	6.00
11	Industrial Cooperative Societies	5.00	0.00
12	Labour Contract coop. Societies	5.00	0.00
13	Project Implementation - HRD- Training, Incentives	261.42	221.70
	Grand total	**2356.62**	**2250.41**

Source: ICDP Impact Study of Hanumangarh District in Rajasthan

12.5.4.1 Impact of ICDP assisted Cooperative Societies

PACS

- **Memberships of PACS** increased registering a total increase of 8% CAGR during the project period of 2006 to 2012.
- **Share capital of the PACS** has grown from Rs. 1362.00 lakh to Rs.2117.43 lakh.
- **Reserves** of the society increased from Rs.310.54 lakh to Rs.1427.61 lakh.
- **Disbursement of short term loan** has increased from Rs.12947.44 lakh to Rs. 33130.79 lakh.
- **Recovery of ST loans** also increased from 90% to 91% in the terminal year.
- **Fertilizer business of the PACS & value of fertilizer distribution** increased from Rs. 1249.34 lakh to Rs. 4024.36 lakh and other inputs increased from Rs. 86.45 lakh to Rs. 147.27 lakh in the year 2012 with 9.28% CAGR during the project period.
- **PDS and non-PDS business** has increased from Rs. 231.64 lakh to Rs. 689.76 lakh with 19.94% CAGR.
- **Storage capacity of the godowns** in the district has increased from 9300 MT to 24800 MT.
- **Wage employment** of 21270 man days has been generated in the entire project period for construction and repairing of godowns.

PAMS

- **Profit** earned by PAMS increased from Rs. 490.87 lakh to Rs.706.82 lakh with increased CAGR of 6.27%.
- **Value of fertilizers distributed** increased from Rs. 1862.50 lakh to Rs.4666.17 lakh with a substantial increase in the CAGR of 16.54%.
- **Income on distribution of consumer articles** has increased from Rs. 819.35lakh to Rs. 2286.49 lakh with an increased CAGR of 18.65%.
- **Marketing of agricultural produce** increased from Rs. 347.09 lakh to Rs. 397.97lakh with an increased CAGR of 2.31%.

PLDB

- **Membership** of PLDB increased from 15315 during pre-project period, 2005-06 to 18279 in the project terminal year.
- **Share capital** base of the bank has increased from Rs. 160.53 lakh to Rs. 181.25 lakh with an increased CAGR of 2.04%;
- **Net profit** of the bank shows a slightly increasing trend from Rs. 40.94 lakh to Rs. 46.67 lakh with an increased CAGR of 2.21%;
- **% of recovery of loan** has increased from Rs.47.47 lakh to Rs.62.09 lakh with an increased CAGR of 4.58%.

Impact on Cooperative Wholesale Consumer Bhandar

- **Membership** of the wholesale bhandar from 1326 to 1555 with increased CAGR of 2.69%;
- **Share capital** of the Consumer Store increased from Rs. 8.09 lakh to Rs. 24.20 lakh with 20.04% CAGR,
- **Consumer business** of the bhandar for PDS items increased from Rs. 6.37 lakh to Rs. 6.57 lakh;
- **Business on non-Public Distribution System (PDS) items** has increased from Rs. 95.00 lakh to Rs. 160.07 lakh with an increased CAGR of 9.08%.
- **Consumer business of the Bhandar** in total increased from Rs. 101.37 lakh to Rs.166.4 lakh with increased 8.61% CAGR.

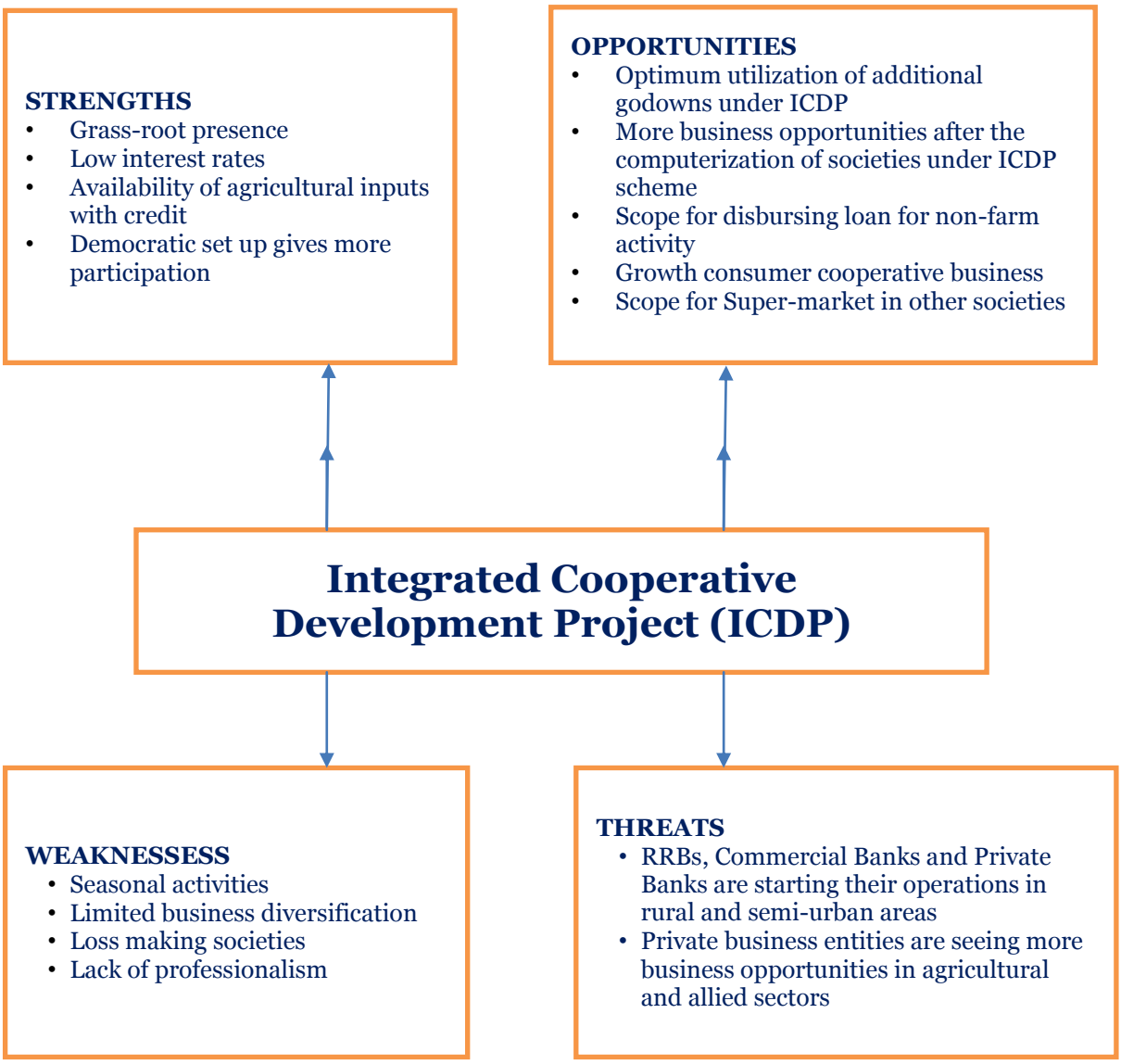
Impact on Dairy Cooperatives

- **Membership** of the milk cooperatives increased from 42142 in the pre-project year 2006 to 43940 in the project terminal year 2012 with an increased CAGR of 0.70%.
- **Reserves** of the cooperatives during 2006 were Rs. 20.64 lakh which has increased to Rs. 170.24 lakh with an increased CAGR of 42.14%.
- **Number of societies in profit has increased from** 661 in the year 2006 to 682 in the project terminal year.
- **Profit** of the cooperative increased from Rs. 202.47 lakh in the year 2006 to Rs. 310.38 lakh with 7.38% increased CAGR in the year 2012.
- **Sale of milk** in litre per day was 38469 litre in 2006 which has increased to 55812 litre in 2012, thus witnessing 6.40% increased CAGR in the year 2012.
- **Volume of business** of the dairy cooperative in 2006 was Rs. 70.48 lakh which has increased to Rs. 154.83 lakh with an increased CAGR of 14.02 %.

Impact on DCCB

- **Share capital** of DCCB increased from Rs.662.84 lakh in the pre-project year 2005-06 to Rs. 1362.95 lakh in the project terminal year 2012 with an increased CAGR of 12.77%.
- **Working capital** increased from Rs. 19904.21 lakh to Rs. 54197.69 lakh.
- **Deposits** of DCCB increased from Rs. 9892.74 lakh in the pre-project year 2006 to Rs. 23860.00 lakh with increased CAGR of 15.8% during the post project terminal year.
- **Recovery** to demand of loans increased from Rs. 97.56 lakh to Rs. 98.84 lakh during the project terminal year 2012.

Figure 12.1: SWOT analysis of ICDP, Hanumangarh: The following SWOT diagram presents in brief the SWOT analysis of the cooperative institutions in Hanumangarh:



Note: This SWOT analysis also applies for the Societies of Jhabua, Madhya Pradesh and Salem, Tamil Nadu under ICDP discussed below

Observations

- Godowns have been constructed by the DCCB through the ICDP in the district at the village level in Hanumangarh, so the members of the cooperatives can store manure and fertilizers, seeds, insecticide/pesticides.
- Farmer members of the cooperative and nearby villages are able to save on transportation and time for bringing manure/seeds with availability of storage facilities for agricultural inputs in the village godown.
- Consumer stores/shops were established in the PACS campus. These shops are working like 'super-markets' in some societies, where all essential goods are available at reasonable prices and quality is assured.
- Necessary furniture and fixtures have been provided to cooperative societies, leading to the infrastructural development of the respective societies, which has increased the efficiency and reputation of the society.
- Earlier, the godowns were in very bad condition and stored manure and seed was affected/damaged in rainy season and was not available to the farmers for next crop, but after the repairing of old godowns, it is fully utilized and condition of the godowns has improved.
- Safety of the cash and deposits kept in the societies has increased after safes were provided to the cooperatives
- Boundary walls were constructed in the societies to avoid encroachments.
- Provision of share capital has resulted in enhancement of the society's good reputation, has consequently increased business and lead to societies running in profit.
- Borrowing power of the societies has increased.
- The training provided to the members of the management committee has enabled them and improvement of their skills and competencies to run the cooperatives in a better way.
- Exposure visit of Governing body of cooperatives to other states gave them knowledge of the development and best practices of cooperative movement in other states.
- Modernization of the DCCB and availability of sitting arrangements has given a new look to the bank and enhanced its image and faith of its customer.

- ***12.5.5Societies that have benefitted from ICDP in Jhabua, Madhya Pradesh***

The cooperative societies that derived benefits from the implementation of ICDP are described below followed by a brief assessment in quantitative terms of the impact of the assistance on the various societies engaged in multifarious activities.

Table 12.9: Societies benifited under ICDP in Jhabua, Madhya Pradesh (Rs lakh)

Sl.No.		No.	Target Financial amount	Financial Assistance utilized
1	LAMPS	72	580.800	625.738
2	District Cooperative Land Development Bank	7	53.000	10.000
3	PAMS	1	124.950	117.850
4	Wholesale Coop. Consumer Store	1	25.000	14.000
5	Others	1	80.500	41.250
6	DCCB, Jhabua	42	193.750	195.490
7	Training and Management	0	177.500	170.25
8	**Total**	**142**	**1235.500**	**1174.578**

Source: ICDP, Jhabua, MP

12.5.5.1 Impact of ICDP on Cooperative Societies in Jhabua, Madhya Pradesh

LAMPS

- **Memberships** of LAMPS increased from 165930 to 192545 registering a total increase of 3.02% CAGR during the project period of 2007 to 2012.
- **Share capital** of the LAMPS has grown from Rs. 1326.61 lakh toRs. 2725.92 lakh with 15.49% CAGR throughout the project.
- **Percentage of benefited members** of the cooperatives through LAMPS has increased from 45% to 82.72% with an increased CAGR of 12.95%.
- **Short term loan** increased from Rs. 5600.84 lakh to Rs. 25781.94 lakh with an increase of 35.71% CAGR.
- **Fertilizer business of the LAMPS** increased from Rs. 1147.54 lakh to Rs. 5673.00 lakh in the year 2012 with 37.66% CAGR during the project period, despite increased private network operating in the district which gives competition to the primary cooperatives.
- **PDS business** increased from Rs. 2685.98 lakh to Rs. 3550.00 lakh with an increase of 5.74% CAGR.
- **Storage capacity of the godown** has increased from 5575 MT in the year 2007-08 to 15030 MT in the project terminal year 2012-13.
- **Business of the marketing societies like fertilizer business** has increased from Rs. 16.80 lakh to Rs. 31.52 lakh with an increase CAGR of 13.41%.
- **Annual profit of the marketing society** has increased from Rs. 76.45 lakh in the year 2007 to Rs. 100.10 lakh in the project terminal year i.e. 30.9.2012.
- Project implementation has resulted in **employment generation** of 76555 man-days in the district.

Impact on Cooperative Wholesale Consumer Bhandar

- **Consumer business of the Bhandar** increased from Rs. 594.41 lakh to Rs. 816.15 lakh with an increased CAGR of 6.55%.
- **PDS business** shows an increasing trend from Rs. 229.12 lakh to Rs. 488.03 lakh with 16.33% CAGR increase.
- **Women Cooperatives, Jhabua**- Four women cooperatives in the district (Ranapur, Meghnagar (02), Kattodi) in Jhabua have received Rs. 5.00 lakh margin money through ICDP assistance, which has helped in the business of the respective cooperatives.

Dairy Cooperatives in Jhabua

A total of 31 dairy cooperativesincluding one women cooperative were provided with Rs. 21.00 lakh for business development and support extended by Indore Cooperative Dairy Union.

- **Collection of milk of the society** increased 30% from 2290330 litres to 2980939 litre and the profit earning capacity has increased 10%.
- **Profit of the cooperative** in the earlier years was Rs 1984320.00 and it has increased to Rs. 2185779.00.

Impact on Cooperative Press

- Rs.11.00 lakh have been utilized for the development of the cooperative press in Jhabua district and has helped in purchasing machinery, constructing office cum godown.

Fishery Cooperative

- Rs. 5.25 lakh have been spent in promoting fishery cooperatives in the district, out of which Rs. 1.25 lakh is loan, share capital of Rs. 2.95 lakh and subsidy of Rs.1.05 lakh.
- The entire amount is utilised for purchasing boats and nets, bicycle. There are 5 ICDP assisted fishery cooperatives in Jhabua district.

Impact on DCCB

- DCCB, Jhabua received Rs.195.49 lakh, out of which Rs. 47.745 lakh as loan, Rs. 143.345 lakh as share capital and Rs.4.40 lakh as subsidy.

Observations from the ICDP units

- Agricultural produce is generally for self-consumption. Tribals pay the loan through the wage earned by migrating to the industrial cities in the states and outside of the state.
- Through the ICDP, infrastructure such as godowns, office with mini-bank counters, halls for meeting has been constructed in the remote area of Jhabua district. However, the infrastructure units created under the project are inadequate and need to be furher enchanced.
- Members of the LAMPS are trained through different training programmes conducted by DCCB, Jhabua under ICDP.
- Business insights need to be inculcated with practical on refresher training and regular follow up is needed even after project completion to empower the poor and asset-less tribal villagers in the Jhabua district.

- The Zilla Thok Upbhokta Sahkari Bhandar Maryadit, Jhabua is engaged in providing LPG gas cylinder connection to the households in the nearby city through a mini truck, running seven PDS shops. During the discussion with the Manager and the Chairman of the Bhandar, it was suggested to provide financial assistance to open up shopping complex and/or super market and Small Scale Enterprises for Women.
- The business of the Primary Agri Marketing Society (PAMS) named as Vipanana Sanstha Maryadit at Petlawad has grown over the years. The society is engaged in supplying fertiliser, seeds and PDS goods to the shops in the locality. Though the society has enough infrastructures, it is underutilized and society demands to establish an additional Super Market or shopping complex as it is situated in the market at Petlawad.
- Discussion with the field staff at the DCCB level, Jhabua suggests that regular field staff should be provided as part of the project for carrying out ICDP activities. He should have basic facilities like a vehicle for field visits, a computer and mobile for communicating with the customers especially during the visit for recovery of loan.

12.5.6 Cooperatives in Salem (Tamil Nadu)

The cooperative societies that derived benefits from the implementation of ICDP are described below followed by a brief assessment in quantitative terms of the impact of the assistance on the various societies engaged in multifarious activities.

Table 12.10: Description of cooperative units in Salem

Sl No.	Type	Number
1	Primary Agricultural Credit Cooperatives(PACS)	193
2	Primary Agricultural Marketing Societies	2
3	Primary Coop. Consumer Store	6
4	Wholesale Cooperative Consumer Store	1
5	Milk Cooperative Union	1
6	Mettur Dam Fisherman Cooperative Societies	1
7	Sheep Breeding	1
8	Handloom Weavers Cooperative Societies	43
9	Industrial Cooperative Societies	3
10	Printing Press	1
11	Service cooperatives	2
12	District Central Cooperative Bank	1
13	Primary Coop Agri. & Rural Development Banks	2
	Total	257

Source: ICDP.

Sector wise usage and its utilization under ICDP is narrated in the following table

Table 12.11: Sectorwise Outlays and Utilisation under the ICDP (Rs. lakh)

S. No	ITEM (Infrastructure Construction etc.,)	Total outlay for Five Years (up to 1.03.2013)		Funds released to societies up to 31.12.2014	
		Physical	Financial	Physical	Financial
I	PACCS	465	885.51	844	999.217
II	PAMS	19	79.5	41	250.275
III	Primary Consumer Store	23	57.4	25	58.157
IV	District Whole Sale Consumer Store	14	128.1	14	127.10
V	Primary Milk Cooperative Societies	3228	373.4	1158	217.38
VI	Fishery Cooperatives	4	7	4	7
VII	Sheep Breeding	2	8	1	4
VIII	Handlooms & Power looms	140	265.15	158	189.80
IX	Power loom	4	10	2	5
X	Sericulture – Tansilk	1	50	0	0
XI	Industrial Cooperative Societies	3	18	5	18
XII	Salem Cooperative Printing Press	2	14	3	19
XIII	Service Cooperatives	28	13.7	6	62.5
XIV	Sago Serve	1	50	0	0
XV	Salem District Central Coop. Bank Ltd.	323	372.62	248	372.62
	Total	4258	2332.38	2509	2330.05
XVI	Manpower Development & Training Subsidy		319.2	0	305.799
	Grand Total	4258	2651.58	2126	2635.851

Source: ICDP.

Impact of ICDP on Cooperative Societies

Impact on PACS

- **Memberships** of PACS have grown from 225077 to 299623 registering a total increase of 5.89% CAGR during the project period of 2008 to 2013.
- **Share capital of the PACS** has grown from Rs 3174.73 lakh to Rs.4185.72 lakh.
- **Short term loan** distributionincreased from Rs. 11910.83 lakh to Rs. 29050.84 lakh, registering 19.52% CAGR during the project terminal period.
- **Medium term loan** distribution increased from Rs. 4015.24 lakh to Rs. 8532.26 lakh with increased CAGR of 16.27% in the project terminal year. Recovery of loans from the farmers has increased over the years from 75% to 93% the terminal year.
- The PACS have been able to mobilize higher amount of **deposits** from Rs. 34390.84 lakh to Rs.77698.95 lakh, with an increase of 17.7% CAGR.
- **Fertilizer business** has increased from Rs. 1271.43 lakh to Rs. 3553.31 lakh with an increased CAGR of 22.82%.
- **Business turnover of PACS in the PDS & Non-PDS** items has increased from Rs. 5538.30 laks to Rs. 8042.27 lakh registering an increased CAGR of

7.75%. The business of the primary cooperative on other business has also shown a slightly increasing trend from Rs. 53.40 lakh to Rs. 56.47 lakh with increased CAGR of 1.12%.

- The ICDP has generated **employment** of 77089 man-days in the district through godown construction, repairing etc.

Impact on PAMS

- Membership of PAMS increased from 79479 to 82922; share capital has increased from Rs. 15.36 lakh to Rs. 84.74 lakh with 40.71% CAGR during the project period.
- Reserve funds increased from Rs. 1447.86 lakh to Rs. 2299.98 lakh, with an increased rate of 9.70% CAGR; the amount of profit increased by 10.96% during the terminal year.
- The business of the marketing societies such as fertilizer business has increased to 3.06% during the project terminal year. Business on PDS & Non-PDS (rural consumer items) has also increased from Rs. 2820.65 lakh to Rs. 5872.63 lakh.
- Profit of PAMS increased from Rs. 93.315 lakh to Rs. 156.97 lakh with a sharp increase in 10.96% in the project terminal year.

Impact on Cooperative Wholesale Consumer Stores

- Wholesale Consumer Store received Rs. 128.10 lakh as per the latest estimates of funds released by DCCB, Salem up to 31.12.2014 under the ICDP.
- The infrastructure created under the project includes iron safe, purchasing transport vehicles (10 ton truck), transport vehicle(1 to 2 ton), new self-service store, machineries, repairing the store, refurnishing the existing show rooms, computer software, generator, construction of multi-purpose godowns and margin money for growth of business.

Impact on Consumer Stores

- The Co-operative Stores were provided with financial assistance to the tune of Rs. 58.157 lakh by means of OfficeBuilding, Godown cum office cum Shop, Medical Store, Self-Service Coop store, Computer with software for billing, Iron Safe and with Margin Money.
- Membership of the Stores increased from 8188 as on 31.03.2008 to 11052 as on 31.03.2013.
- Share capital increased to Rs. 24.82 lakh from earlier Rs. 6.20 lakh, an increase of more than four times.
- PDS sale increased up to Rs. 577.36 lakh as on 31.03.2013 when compared to Rs. 390.77 lakh as on 31.03.2008.
- Non-PDS sale as on 31.03.2013 is Rs 585.83 lakh, whereas it was Rs. 549.79 lakh as on 31.03.2008.

Impact on Other Sectors - Fishery

- One society in the District received assistance as on 31.03.2013. It was provided with Mini Auto Mini Truck (Stall), Furniture, Computer, Construction of Fish Weighing Stall and Margin Money. The total assistance was Rs. 7.00 lakh.
- Profit of the society rose to Rs. 1.42 lakh as on 31.03.2013 compared with Rs. 5.28 lakh as 31.03.2008.

Impact on Other Sectors - Sheep Breeding

- One society in the District received assistance as on 31.03.2013. It was provided with animal shed and Margin Money for marketing through meat stall.
- Profit rose to Rs. 8.72 lakh as on 31.03.2013 compared with Rs. 1.66 lakh as 31.03.2008.

Impact on Dairy Cooperatives (Primary Soceities & District Union)

- The number of primary milk cooperative societies in the district is 1158 and total amount of assistance received by these cooperatives till 31.12.2014 is of Rs. 217.383 lakh.

Impact on Cooperative Printing Press

- The Cooperative Printing Press was extended with an assistance of Rs. 19.00 lakh.
- The assistance has resulted in an increase in printing orders and regular work to its employees.
- Net profitfor the year 2012-13 was Rs. 20.38 lakh.

Impact on Handloom Cooperatives

- Membership has seen a notable growth as on 31.03.2013 when compared to the pre-project year 2008.
- Share capital has increased to Rs. 388.08 lakh with assistance of Rs. 141.00 lakh as Margin money.
- Value of production has increased to Rs. 3441.37 lakh as on 31.03.2013, when compared to Rs. 2420.77 lakh as on 31.03.2008.
- The sales have also increased to Rs. 4127.97 lakh as on 31.03.2013 from Rs. 2963.26 lakh as on 31.03.2008.

Impact on Agriculture Marketing Societies

- Two Cooperative Marketing Societies in the district were given assistance to the tune of Rs. 250.275 lakh.
- Compared to the pre-project year i.e. as on 31.03.2008, whereas the membership was 79479, it has grown up to 82922 as on 31.03.2013.
- Share capital as on 31.03.2008 was Rs. 15.36 lakh and it has now grown to Rs. 84.74 lakh as on 31.03.2013. As on 31.03.2013 the reserves have also seen an impressive growth of Rs. 2299.98 lakh when compared to Rs. 1447.86 lakh as on 31.03.2008.
- As on 31.03.2008, both societies were earning profit to the tune of Rs. 93.31 lakh. As on 31.03.2013, both societies were earning profit to the tune of Rs. 156.97 lakh.

- Distribution of fertilizer through both the societies as on 31.03.2013 was Rs. 3.06 lakh.

Impact on Women Cooperatives

- Membership of the women cooperative in Salem district increased from 10961 to 42672 with an increase of 31.24% CAGR;
- Loan availed by the cooperative members in advance has also increased from Rs. 1661.37 lakh to Rs. 4120.95 lakh; deposit mobilization has also increased from Rs. 80.95 lakh to Rs. 1377.37 lakh with an increased CAGR of 76.27%.

Impact on DCCB

- Salem District Central Co-operative Bank (DCCB) was assisted to the tune of Rs. 372.62 lakh.
- Besides repairs to buildings, DCCB was provided with iron safes and Safe Deposit Lockers for improving safety and security. This has created confidence and attracts more customers. Provision of computers and currency counting machines has helped improvement in productivity by staff members.

Observations

- The physical infrastructure created through the ICDP at the PACS level has enhanced the storage capacity of fertilizers & increased consumer business activities, farm inputs distribution, disbursement of credits and other-agribusiness development activities.
- The appearance of the PACS office building has improved which has more appeal to the public and has instilled confidence among the PACS customers.
- Strong Rooms with defender door, iron safe, safety lockers and burglary alarms have facilitated greater safety measures in PACS.
- Provision of Computers, Invertors, Modern Deposit counters, Electronic Jewel weighing machines, Note counting machines, Fake note detector machine and Furniture & Fittings have facilitated more confidence among staff of PACS and resulted in higher productivity.
- PACS, besides providing agricultural credit, grant Jewel Loans and loans to SHGs. The societies were permitted to accept deposits from members and non- members.
- Margin money provided to the assisted cooperatives has certainly helped in increasing the financial leveraging capacity of the cooperatives to avail fund from the DCCBs and continue their business as well as loaning and other income generating activities.
- Modernization of the DCCB and availability of sitting arrangements has given a new look to the bank and the faith of the cooperative members has increased. The ICDP has strengthened the share capital base of DCCB.
- Training and incentives money provided under ICDP has certainly motivated the personnel in cooperatives and the working capacity of the cooperatives has improved significantly.
- The repayment behaviour of the cooperative members on ICDP loan is high.
- With an increase in business volume of the PACS, they are showing interst in diversifying their activities. This instifies further financial support by NCDC.
- With increase in the activities of the PACS, there is a need to right size the PACS in terms of manpower.

- Societies at PACS level should also be provided with computer and necessary software to keep the information about the quantum of business of the societies updated.

12.6 Specific Case Study

The NCAER also conducted studies of the Mulkanoor Cooperative Rural Bank & Marketing Society Ltd.(MCRBMS), Mulkanoor, Bheemadeverapally, Karimnagar District, TelanganaState and Andhra Pradesh. While the first case study is of the impact assistance of the Mulkanoor Society for 3 Transport Vehciles, the latter deals with the impact for assistance towards godown.

12.6.1 Case Study 1- NCDC assistance for purchase of vehicles - Mulkanoor Cooperative Rural Bank & Marketing Society Ltd. (MCRBMS), Mulkanoor, Karimnagar District, Telangana State

Brief Background

The Regional Directorate, NCDC, Hyderabad has sanctioned financial assistance of Rs. 37.10 lakh towards purchase of 3 Transport Vehicles at a block cost of Rs. 53.00 lakh during the financial year 2011-12.

The society was started during the year 1956. Presently there are about 8000 members and its area of operation extends to 14 villages. The MCRBM society, besides providing credit activities is also operating non-credit/agricultural activities such as

- Processing of Paddy & Maize seed,
- Rice mill,
- Cotton ginning & Pressing, etc.

Sanction of funds and conditions

NCDC has sanctioned funds against pledging of sufficient value of FDRs as security subject to the following conditions:

a) The Society shall hypothecate the said 3 transport vehicles to NCDC on 1st charge basis within 30 days of purchase.

b) The Society shall insure the 3 vehicles on the joint names of the Society and NCDC.

c) Legal documentation, payment of processing fee, etc.

Post Project Changes in operation efficiency and business performance

The purchase of transport vehicles resulted in funds savings on hiring of vehicles as well as hassle-free movement of agricultural commodities within the area of operation, having 22 godowns, 2 rice mills, cotton ginning & spinning plant and five seed processing plants. The Society has received NCDC Biennial Award for Cooperative Excellence for the year 2014 in the National category.

The Society provides the following benfits to its members:

- Merit scholarships to meritorious wards of members.
- Family planning and Eye care camps
- Funeral expenses of deceased members.
- Rs 25000- Rs 50000 payment to legal heir of deceased family member.
- Premium contribution towards Jantha Accident Policy for society members

- Animal Health care camps.
- Running 1 Junior College and DegreeCollege in the village under AKVR Rural Development society promoted by MCRBMS

12.6.2 Case Study 2, NCDC assistance for the construction of godowns- Andhra Pradesh Pedapadu Large Sized Cooperative Credit Society Ltd., Pedapadu, West Godavari District, Andhra Pradesh

Brief Background of the Society and Project

(a) The Regional Directorate, NCDC, Hyderabad has sanctionedfinancial assistance of Rs. 37.32 lakh to the society towardsconstruction of two godowns of 1000MT and 700MT capacitygodowns during the financial year 2011-12.

(b) Started in the year 1956, presently the society has 5200 members. Its area of operation covers 13 villages. The Society is involved in funding non-credit activities such as marketing of paddy seed and fertilizer etc. in addition to credit activities. It has constructed twogodowns of 1700 capacity with NCDC financial assistance.

Project Details

The 2 godowns of 1700 MT capacity are for the storage of seed. The Society has been marketing quality seed in the surrounding districts. The Society has achieved 50% average annual growth in the seed business during the year 2008-09 to 2010-11. The existing storage capacity of 1000MT was insufficient to meet the targeted seed business by the society.

Sanction of funds and conditions

NCDC has sanctioned funds against mortgage of society property subject to following conditions:

i) Execution of legal documents in the prescribed formats
ii) Payment of legal and processing fee
iii) Construction of godown in all respects to be completed by 31.03.2013

Post Project Changes in operation efficiency and business performance

The godowns constructed resulted in considerable value addition from increased business of the Society. Due to the achievement, the society has been bestowed with NCDC Biennial Award for Cooperative Excellence for the year 2014 in the State Category.

The Society provides the following benfits to its members:

- Funeral Expenses of the deceased society members
- Sports infrastructure for High School of the village
- Clean & Green programme, providing plants and plant guards
- Construction of school toilets

12.7 Conclusion

Consistent and guided support from NCDC helped the growers with reduced wastages and enhanced level of productivity. In every sphere of activities related to marketing, processing and storages, cooperative units have shown better performance in terms capacity utilisation and outreach.

13. An assessment of whether the projects of NCDC have served the purpose for which they were sanctioned

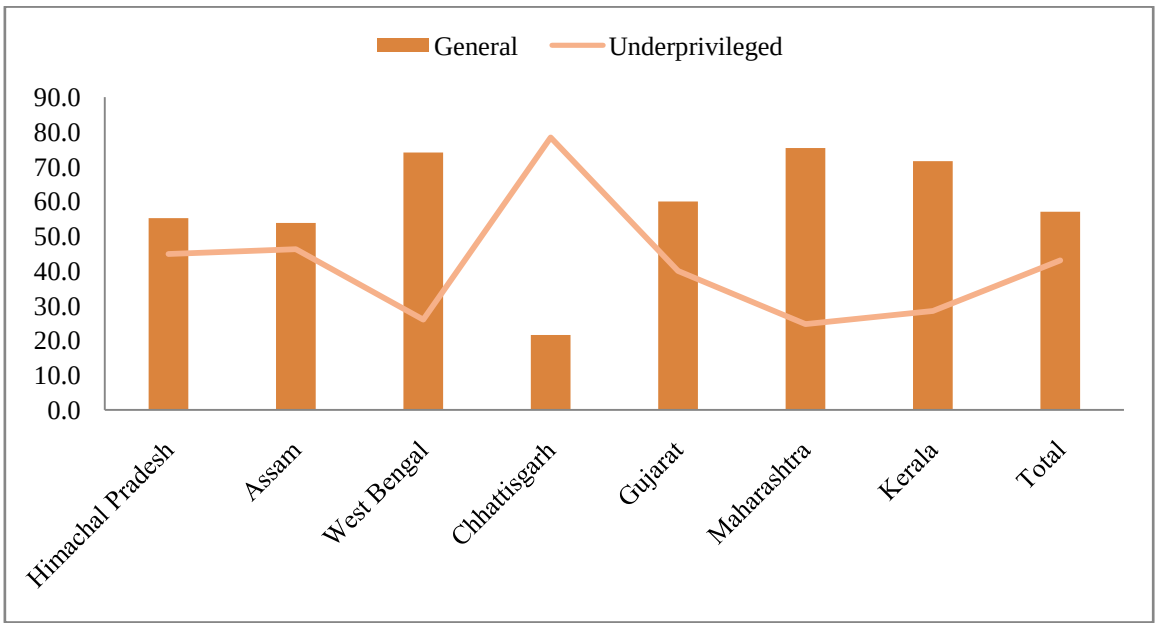
NCDC projects and its funding to the cooperatives has resulted in social transformation achieved through economic empowerment of the underprivileged classes, women, cultivators and energising members of the rural economy through skill formation and further development. This has been amply reinforced by the findings of the NCAER primary survey.

13.1 Cooperative Activities: Reflecting Spirit of Inclusiveness and Wider Coverage

Among the selected states, cooperative activities in which the representation of underprivileged classes is shown to be significant have shown the spirit of inclusiveness. With 43% of the underprivileged classes (SC, ST and OBCs combined), being cooperative members, cooperatives need to be accorded prime importance as a mechanism for social transformation and empowerment. It is also important to note that cooperatives work in a democratic environment as 75.4% of the cooperatives are found to be operated by elected representatives.

The importance of NCDC's positioning in the structure, catering as it does to the cooperative requirements of financial, professional and promotional support, needs to be viewed from the fact of its far reaching social impact in terms of the spirit of inclusiveness.

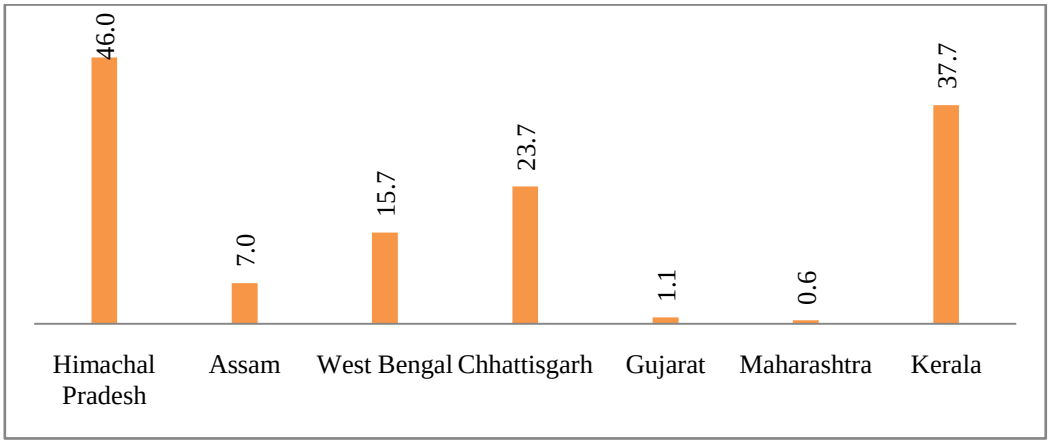
Figure 13.1: Representation of underprivileged (SC, ST&OBCs combined) in cooperative activities



Source: NCAER

NCDC has supported a large number of projects aimed at women development. The impact of these projects is observed to be significant in terms of women's participation in cooperative activities in states like Himachal Pradesh (46%), Kerala (37.7%) and Chhattisgarh (23.7%). Himachal Pradesh and Chhattisgarh are among the thrust areas, where the impact is significant.

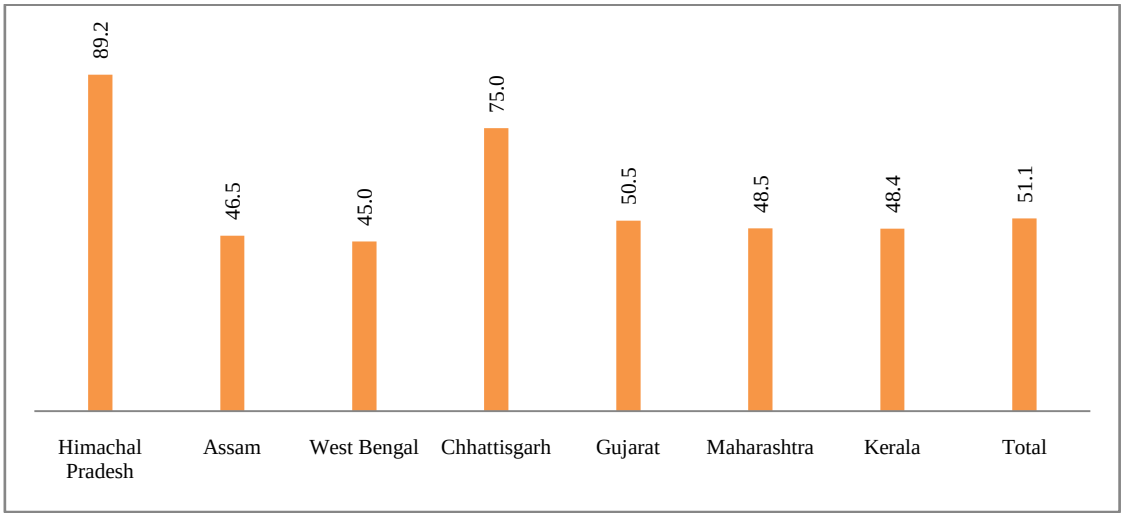
Figure 13.2: Women labour as proportion to total manpower engaged in the cooperative units



Source: NCAER

Skill enhancement of cooperative members is among the prime objectives of NCDC assistance. At the ground level, it is observed that the cooperatives have more than 50% of skilled labour in their workforce, which can be a great source for a turnaround, provided institutional constraints are eased so that they can contribute in a flexible environment.

Figure 13.3: Skilled labour as proportion to total manpower of the cooperative units

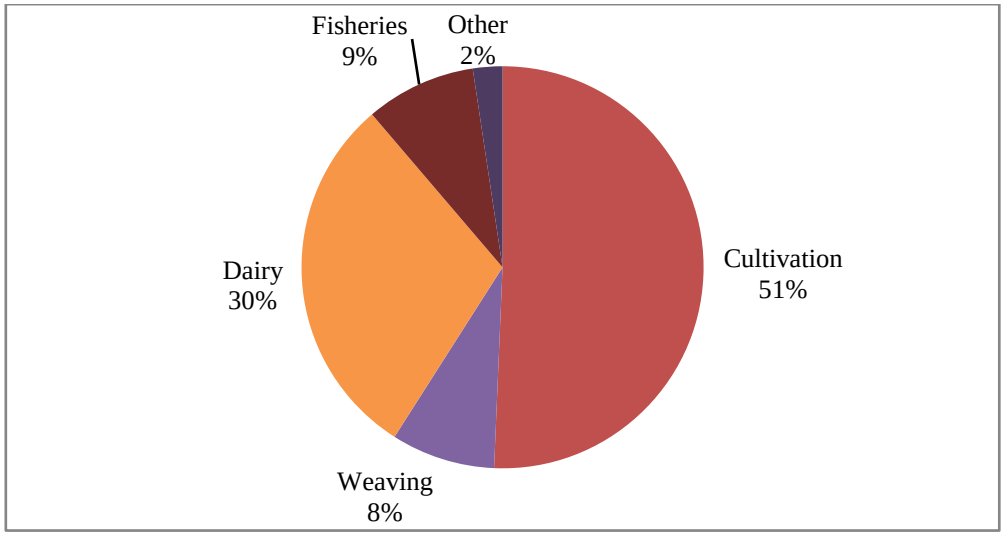


Source: NCAER

13.2 Cooperative Activities: Distribution framework

To investigate the impact of NCDC assistance on the rural hinterland in which cultivators have dominant share, 1,758 members associated with assisted cooperative units were canvassed. The activity-wise distribution of members is as follows:

Figure 13.4: Distribution of members among activity groups

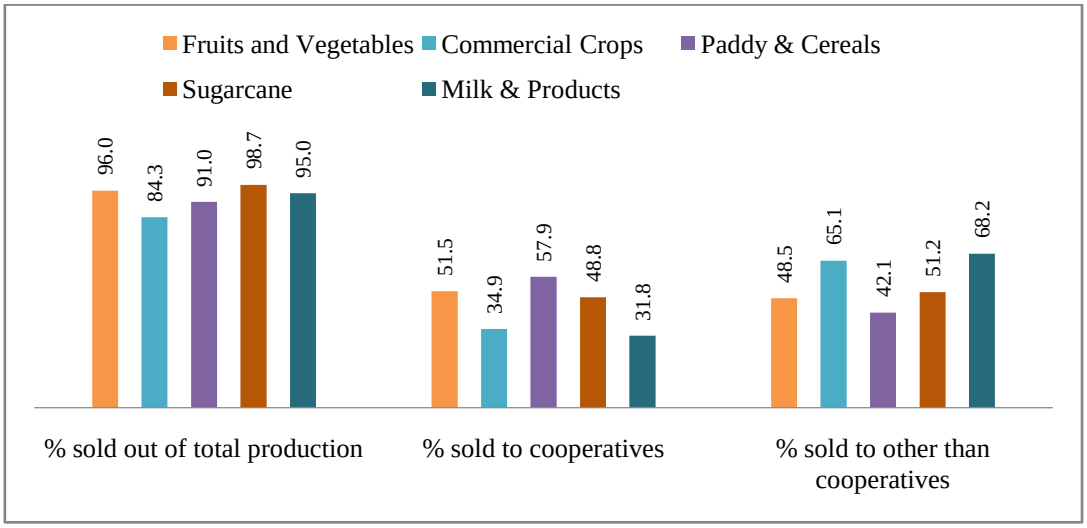


Source: NCAER.

Members in different sector cooperatives get several benefits from cooperatives, starting with demonstration, training facilities, better quality seeds and processing and loans at a cheaper interest rate.

The members, as mentioned earlier, are engaged in production of various produce. The disaggregated produce has been aggregated and the pattern of their transaction activities (after production) is shown in the following graph. Broadly, members sell their produce largely to cooperatives - paddy & cereals (57.9%), followed by fruits and vegetables (51.5%) and sugarcane (48.8%). Apart from this, fishing is another vibrant business, although with a much lower cooperative share, selling out 79.1% of the total collection of fish to private parties.

Figure 13.5: Economic activity



Source: NCAER

13.3 A few qualitative observations from the Field Visit

13.3.1 Overview

Milk production in Uttar Pradesh is about 3-5 times that in Gujarat. However, the success of dairy cooperatives in Gujarat is far greater than in Uttar Pradesh. Although Uttar Pradesh has a much higher potential to produce more, its dairy owners operate mostly at the household level and those already engaged in milk production are reluctant to expand their production capacity, primarily due to the lack of organized and assured marketing avenues beyond the village/boundaries. Gujarat is the only state in India, which supplies tap water to all its villages. Water is also supplied for cultivation through the NarmadaCanal and this has indirectly contributed to the growth of the dairy sector in Gujarat.

Several schemes are being operated by the Gujarat government for support to Women Milk Cooperatives for enabling them to access marketing and cooling equipment as well as helping them in the presentation and promotion of dairy products on commercial lines. There is an overlapping of multiple agencies engaged in the implementation of Central and State schemes with the presence of various agencies like RKVY (Rashtriya Kishan Vikas Yojana), DMI (Directorate of Marketing & Inspection) etc. Also, several deficiencies and constraints have been reported in Government Sponsored Schemes. This can be rectified if NCDC is appointed as the nodal agency and all government schemes are routed through NCDC for promoting and encouraging the cooperatives under weaker sections/ tribal areas schemes.

The Banaskantha District Cooperative Milk Producers Union Ltd. in Gujarat is a unique example of how a cooperative could go a long way in augmenting growth and marketing in the dairy sector through cooperative intervention, extending its operations even beyond its geographical boundaries. An example is that of its proposal to install a 5 lakh litre plant at Kanpur (to be financed by NCDC), which is on the anvil. With the presence of improved technology in UP, there will be a sea change in the entire scenario as procurement of milk possibilities will motivate dairy owners to produce more and receive the correct price linked to purity. In Banaskantha, where the system already prevails milk is brought by the farmers to the collection centre of the primary dairy cooperatives at the village level, screened by machines for purity and fat content and is graded accordingly. The collection of milk at the local level is done by SHG as well as primary village level dairy cooperatives. The Banas Cooperative Union then collects milk from the village level cooperatives and transports it to the plants for preservation and processing.

Since UP Milk Federations are not functioning at present, intervention by the Banaskantha District Cooperative Union is being mooted. However, the existing Federations in UP may also operate along with the Gujarat one based in Banskantha. The Banasktha Cooperative's involvement in the UP dairy sector would motivate the existing UP dairy federations, which are also planning to install plants in Lucknow and Banaras. A moot point that arose in discussions with the concerned officials is that for availing financial assistance from NCDC, all applications are required to be submitted to the NCDC Headquarters located in Delhi, which often slows things down. Procedural delay in approval even up to one year is reported to be an issue.

The Kaira District Cooperative Milk Producers Union Ltd, Anand in collaboration with NCDC has along the lines of the Banaskantha Union earlier cited, ventured into

several activities in West Bengal (WB) to set up 105 primary dairy cooperative societies in Burdwan, Bankura and Hoogly districts of West Bengal under the NCDC Bulk Milk Cooler Scheme. It is proposed to install Bulk Milk Coolers at 21 Milk Procurement areas in West Bengal; The other component of the project includes installation of Automatic Milk Collection System (AMCS) at MOP area of Kolkata (WB) under NCDC scheme through 105 primary dairy cooperatives; installation of weighing scales of 200 Kgs. capacity with large platform, installation of Automatic Machines with display; installation of Computer component with printers at 25 locations to facilitate Milk Procurement Operations. In 23 out of 25 locations, the Milk Machines Model: BMS- II will be installed.

In Gujarat, Textile Cooperatives have great potential to replicate the success of the Anand Cooperative. There are 17-18 Cooperative Sugar Mills in Gujarat out of which 2-3 are closed due to loss and liquidationand need attention, particularly in view of the political move and attempt to privatize cooperatively owned sugar mills.

In Gujarat, cane growers get double the cane price of that prevailing in Uttar Pradesh. NCDC does not assist new mills in the absence of government guarantee. State government does not favour the coming up of new mills. Sugar Mills are supposed to implement sugar development plans by providing inputs, seeds, fertilizers, machines and implements to growers, but in many cases they do not do so in practice. In this context, NCDC intervention in the cooperative sector particularly assistance for Tribal and Women cooperatives is much needed.

Paddy procurement is a major cooperative activity of Chhattisgarh, where MARKFED (Marketing Federation), working through 1333 PACS, is the sole agency involved in procurement. This is a successful programme through which civil supplies are ensured for both the state and central government pool. Transportation arrangement and other support is provided by MARKFED and NCDC has extended the much needed credit support through provision of 99.5% of the working capital. In addition, margin money assistance is provided to the PACS and Taluka Marketing Society. Working capital has also been provided to a sugar mill in the state.

Himachal Pradesh is a state where cooperative activities in items like potato seeds, handloom, and industrial cooperatives have made great leeway as a result of NCDC support to purchase raw materials.

13.3.2 A Case study linking performance to assistance provided for Bulk Milk Coolers (BMC) system in Karnataka

In Karnataka, NCDC has sanctioned financial assistance to 4 Milk Unions, for installation of 208 BMCs, under various projects.

MYMUL (Mysore-Chamarajanagar Districts Co-op. Milk Producers Societies Union Ltd.), MANMUL (Mandya District Cooperative Milk Producers Union Ltd.), BAMUL (Bengaluru Urban, Bengaluru Rural & Ramanagara Districts Cooperative Milk Producers Societies Union Ltd.) and SHIMUL (Shimoga, Davanagere and Chitradurga Districts Cooperative milk Producers Union Ltd.)

13.3.2.1 Capacity Utilization of BMC

BMC installed by three Unions (MYMUL, MANMUL & BAMUL) have completed three years of operations. On interaction with these Unions, it has been ascertained that the average capacity utilization ranges from 80% to 100%.

13.3.2.2 Specific Advantages accrued to societies/unions due to BMCs

When milk is extracted, it is as warm as the milched animal's body temperature i.e. about 37 degrees Celsius. After extraction, until it reaches the main dairy or chilling center it continues to remain at room temperature, which is normally warm, encouraging bacterial and enzymatic reactions affecting the quality of milk. With the introduction of BMC, raw milk will be chilled at collection point's upto 4 degree Celsius, arresting bacterial and enzymatic actions as also minimizing physico-chemical changes of raw milk. Use of BMCs would help a range of beneficiaries starting from milk producers, primary dairy cooperative societies, milk unions, dairy processors and consumers.

A few of the benefits to farmers and primary dairy coops are highlighted below:

(i) Higher procurement price

The producer member is benefited by having flexibility in milk collection timings, better price for the produce, lesser or no sourage losses of milk resulting in higher realization. By virtue of better infrastructure, primary dairy societies provide better services to members.

In Karnataka, BMCs are owned and maintained by milk unions placed at primary dairy cooperative societies. The milk unions pay Rs.3500 to 4000 per month to the societies having BMC. Incentives paid to the societies, are recovered by unions through reduction in cost of transportation, reduced refrigeration load at main dairy and better quality of milk.

(ii) Techno up-gradation in handling raw milk

The user-friendly Automated Milk Collection System (AMC), attached to BMC, would facilitate testing, procuring, handling, billing and up keeping of accounts.

(iii) Zero sourage/ spoilage

In conventional handling, average losses due to sourage/spoilage account for 0.5% of total quantity handled. In case of BMC as the milk is chilled at collection point, no spoilage has so far been reported.

(iv) Hygienic Premises

Milk collection involving BMCs has a closed cycle, with no exposure to light and air immediately after milk is collected. Further, milk collection centers, including those with BMCs, have standard flooring & walls covered with tiles, which helping in maintaining hygiene in the collection area.

(v) Flexibility in milk collection

Contrary to fixed pouring times at each collection center, which is in tune with milk collection route timings, in case of BMCs the society can have convenient collection timings. This would improve the collection as some pourers, who are unable to pour on fixed schedules, would access the BMC.

(vi) Scientific pricing:

With the aid of AMCs in BMCs it would be possible to test for Fat & SNF and accordingly price the milk with biaxial system.

Benefits at Union level

BMCs have helped the Milk Unions more than Primary Societies in the following spheres:

(i) Improvement in quality of milk

Quality of milk collected through BMCs is maintained throughout the cycle till it reaches the main dairy.

(ii) Reduction in Transportation Cost.

Since BMCs can hold milk upto 1 day, Unions can rationalize collection routes, collect milk only once a day instead of visiting the collection centre twice, thereby effectively reducing transportation cost by 50%.

(iii) Reduction in refrigeration load at main dairy.

Since the dairy would be receiving chilled milk, refrigeration load on the main dairy would be considerably less resulting in energy savings.

(iv) Standardization of Milk Reception and Processing

Rationalization of route timings and regulation of tanker movement at main dairy results in balanced milk reception throughout the day. This facilitates unions to optimize the processing capacity of plants, thereby, reducing the need for capital investment on creating additional capacity.

(v) Improvement in final product quality

Production quality of dairy products will improve.

(vi) Value addition for milk products

Collection, transportation and handling of raw milk involving BMCs helps in maintaining freshness of the raw milk. High quality raw milk will have better stability for processing, including Ultra High Temperature (UHT) processing. MANMUL which has been assisted both for BMC and UHT packing unit has dedicated BMC supply line for UHT plant.

13.3.2.3 Change in Efficiency of Supply Chain at Society level & Member Level

In Karnataka, collections by individual primary societies are inadequate to justify installing BMC at each society level and hence the unions have formed clusters of societies and installed BMC at central locations. The Unions collect the milk from BMC society using tankers. This arrangement is working well and is giving good results in the following ways.

(i) Improvement in quality of milk procured
(ii) Rationalization of tanker routes and reduction in Transportation Cost to the extent of 50 paisa per litre
(iii) Reduction in refrigeration load at main plant, for which savings is estimated to be 30 paisa per litre
(iv) Standardization of milk reception and rocessing
(v) Rationalization of milk reception at main dairy through tankers, leading to optimal utilization of infrastructure as also a substantial reduction in scope for additional capital investment.

13.3.2.4 Related Benefits

a) Employment

Introduction of BMCs has created a wide range of direct and indirect employment in activities such as the construction of sheds for BMC, manufacture of BMC & accessories, maintenance, etc. The installation of BMC creates employment of 130 man days. Activities post BMC installation also create employment in terms of maintenance and part time job for two persons per unit related to collection, handling, washing, cleaning etc.

b) Environmental

- With involvement of BMC, milk collection as an activity is reduced to being carried out only once a day, through tankers, instead of the earlier process of running milk collection vans, involving cans, twice a day. This not only reduces transport cost by half but also reduces the consumption of fuel for transport by half.
- With BMC, chilling is de-centralized which reduces refrigeration load at main dairy & processing units and hence is environmental friendly.
- All the BMC have solar water heaters (SWH) as an integral part f the system for generating hot water required for washing BMC tank, collection and testing devices, cleaning floor, thereby reducing dependence on electricity. Resultant savings in electricity consumption are estimated to be 4.33 units/BMC/day.

13.4 Conclusion

The fact that the cooperative societies are formed with a welfare motive and pool resources to benefit larger sections of society has been confirmed on a 5 point scale by 92% of the cooperatives addressed.

That Cooperative contribution to post-harvest activities has not been given its due credence by policy makers is the general opinion, reiterated by a majority of the respondents of the cooperative units. However, for overcoming this deficiency, most felt that the following actions are important,

- Thorough revamping, modernisation and running the organisation like other business ventures.
- Bringing the cooperative system in line with other business institutions in India.

This requires a radically transformed marketing structure and institutional support mechanism. It is apparent that the basic concepts of the organisation and management of cooperatives did not strike roots that were either strong or wide enough on ground to generate and sustain growth. Weaknesses in the functioning of societies to promote thrift, excessive dependence on subsidies and poor financial management results in ineffectiveness in some cases.

Finally, the gap in institutional funding of cooperatives has to be minimised so that their activities are not affected to carry out functions smoothly and neither do they have to resort to non-institutional finance.

14. Concluding Reflections and Policy Imperatives

The preceding analysis shows that Cooperatives have achieved undoubted success in various fields and led to removal of poverty through reducing member indebtedness, lowering interest rates, increasing productivity and thrift, lowering the cost of borrowing of needy members, arranging for the disposal of their produce and discouraging unnecessary social expenditures. Cooperatives have contributed greatly in serving the interest of members in terms of enhancement of their income and well-being.

The study acknowledges that NCDC's contribution to post-harvest operations and consequently rural progress is incontestably high. In a country, where post-harvest operations should be accorded high priority, however, the importance given to such operations, particularly at policy level is not adequate.

NCDC is the only financial institution at the national level created exclusively for catering to the credit needs of cooperatives for post-harvest activities viz., marketing, storage, processing, of agricultural produce and allied sector including service sector activities.This centrality of NCDC to the whole cooperative system needs to be recognisedby the Government.

Prior to 2010-11, NCDC was availing concessional finance from commercial banks under priority sector lending. The facility of Priority Sector Lending, which was earlier granted to NCDC from the year 1998 onwards has been withdrawn from NCDC by the Reserve Bank of India (RBI) from April 1, 2010. Since then, NCDC has no other avenue to avail concessional finance for lending to cooperatives.

In its endeavour to fulfil its commitment of supporting cooperative development efforts, NCDC is constrained to borrow funds from the market i.e. from Commercial Banks at the prevailing interest rates. Though, NCDC is providing loans to cooperatives at competitive interest rates by retaining a very thin margin, cooperatives have been finding NCDC rates of interest to be very high and have been requesting for loans to be provided at concessional rates of interest.

As NCDC's assistance is mainly meant for the development of farmers and weaker/underprivileged sections of the society via the cooperative route, borrowing at commercial rates by these cooperative entities adversely affects the viability of cooperative development programmes and their profitability. The present study has also delved deep into the refinancing pattern of NABARD, which is mainly involved in financing crop loans & pre-harvest related activities. Budgetary support to NABARD activities enables it to lend to Cooperatives at very low rates of interest, also in fields that are NCDC's traditional terrain, and this has deleterious consequences for NCDC funding due to the unavoidable resulting market distortions in cost of funds. The nationalised and commercial banks have a very low exposure to infrastructure development and post-harvest activities of cooperatives partly due to their inexperience of the sector, thereby increasing their risk perception of ventures by cooperatives and resulting in increasing interest rates as well as security norms. This leads to a negligible participation by public sector banks in the provision of financial requirements of the cooperative sector and the resulting savings in their priority sector mandatory lending requirements add to NABARD Fund additionality, which leads to further market distortions.

Over the years, the state governments have also been withdrawing support to cooperatives. As a result, to meet the needs of the cooperative sector, NCDC has had to resort to direct funding, which now accounts for around 80% of its total lending. This has its own constraints and with fund paucity, results in genuine requirements not being met. These factors all contribute to the fact that a large number of cooperatives are not able to expand their infrastructure & business as they cannot afford the high rates of interest of NCDC determined by its comparatively higher cost of funds.

Agriculture, particularly the agro processing sector, faces cyclic ups and downs on account of the vagaries of nature and uncertainties in markets due to adverse demand and supply conditions. These adverse build-ups at various points of time render cooperatives ineligible for bank finance when they need assistance the most. Overall, post-harvest credit has remained very low in India with high inter-state variations.

The study by NCAER suggests that the fulfilment of post-harvest credit need is the most urgent requirement for sustainable agricultural growth and rural development in India. NCDC, despite all odds, has till date consistently managed its portfolio efficiently with net NPA maintained at zero and recovery rate of over 99%. High credit rating by ICRA at A1+ (highest credit quality rating carry the lowest credit risks) for short-term loans and AA- (Stable outlook) for long-term loans bears testimony to the efficiency of NCDC fund management and proficiency in adherence to prudent lending norms to cooperatives. Its high credit rating has enabled the Corporation to raise funds from Commercial Banks close to the base rate i.e. at minimum cost, which unfortunately is still not soft enough to enable the sector needs to be met. Unless the rate of interest is lowered by at least 2-3%, the need of the Cooperative Sector will still remain unfulfilled to a great extent.

From the field level analyses, the NCAER has observed that cooperatives have a noteworthy role and the needs of rural people are better served by cooperatives. Both in theory and practice , the cooperative route has been seen to be the best option for ensuring that development is inclusive in nature. Gujarat's Dairy co-operatives and Maharashtra's sugar co-operatives have proven their contribution in allowing their members to enjoy the benefits that their own organisations bring to them. This is true of cooperatives in other states and sub sectors such as poultry, storage, fishery, handlooms and cotton downstream processing as well. Cooperatives all over are seen to give an opportunity to the weakest and those at the margin to get the benefits of upscaling their activities and the resulting value addition.

The Study has elaborated on the role that cooperatives play in the economy. Cooperatives help farmers by providing top quality inputs- fertilizers, seeds, insecticides, pesticides etc. at reasonable prices. Farmers also get marketing support, warehousing facilities and transportation support from cooperatives. Service cooperative societies help the poor and marginal farmers with tractors, threshers and other equipment on rent. Rural cooperative societies are now entering into areas like real estate, power, insurance, healthcare and communication services.

Next to the public and private sectors, the cooperative sector has been recognised as the third important economic alternative in the Indian economy. Despite the fact that an important role is played by the cooperatives in economic growth, they do not

receive due support from the Government like the Credit Guarantee Fund Scheme of MSME and BIFR, to name a few.

While emphasing the potential for growth though cooperatives and recognising that the expansion and reach of cooperatives is highly impressive, the Study also has come across cases where some cooperatives are merely resigned to being run by the government without motivation and enthusiasm of their members. This is partly due to the absence of required funds. Other factors that also are seen in some cases to lead to the slow progress of these societies are – mismanagement, manipulation, restricted coverage, lack of awareness, and political interference.

But in the big picture, despite all this, that cooperatives are playing an effective role in helping the marginalised segments of society in becoming self-reliant cannot be denied. The cooperative space in rural India can improve significantly with women participation and SHGs and softer finance.

The findings of the Study are a clear pointer to the need to give cooperatives the needed thrust for enabling them to grow in numbers and scale.

It must be emphasised, at the risk of repetition, that the *raison d'etre* of NCDC is the development of agricultural cooperatives for enabling them to undertake value adding post harvest marketing, storage and processing of their primary produce. While NCDC has done a creditable job in carrying out its role mandated by the highest body of the land despite all the handicaps that it faces, a large gap, and hence large potential, for NCDC to meet urgent needs of the farming community, still remains to be converted to positive outcomes.

The high rates of interest that NCDC is required to charge as a result of its high cost resources are a deterrent for cooperatives, particularly the cooperatives of the marginalised sections of Society. The Study has looked at various aspects of NCDC funding of the cooperative sector in accordance with the mandate that it has been statutorily given and found that NCDC funding has adhered to the strictest financial discipline, which has been recognised through its high ratings and ISI flagging. The Study has made out a rigorous case for NCDC's enhanced empowerment through providing it with adequate financial support.

It needs to be recognised that it is important for inclusive growth with equity, a basic objective of Government, to be achieved that NCDC is enabled to access low cost funds through various budgetary means earlier spelt out, such as:

- Access to RIDF
- Restoration of Access to Priority Sector Funding
- All Subsidies in related sectors of NCDC funding to be routed through NCDC as an integral part of its Schematic Assistance
- Interest Subvention to enable a lower Rate of Interest on its lending

Appendices

Appendix A: Activity-wise Sanction of NCDC during the period 2001-02 to 2014-15 (Rs. Million)

Sl. No.	Items	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Consumer	43	130	517	208	24	72	518	1511
2.	Sugar	4204	10466	5247	6640	14170	11477	6360	58563
3.	Cold Storage	63	20	44	110	17	11	23	287
4.	F&V (Fruits & Vegetables)	62	60	65	22	17	155	27	407
5.	Storage	227	171	341	625	569	847	984	3762
6.	Textile	837	2798	1089	573	534	1394	419	7644
7.	Foodgrain	73	229	15	9	54	260	2	643
8.	Coir	0	0	0	0	0	0	0	0
9.	Powerloom	24	2	51	14	76	1	1850	2018
10.	Marketing	13920	13033	22577	11300	11082	23691	24713	120314
11.	Oilseed	0	2	2	11	12	0	18	45
12.	Handloom	778	60	118	19	532	5	1509	3021
I.	Post-harvest operations	20231	26970	30065	19530	27086	37912	36421	198215
13.	Fisheries	603	1554	1246	1033	934	1170	747	7287
14.	Dairy & Live Stock	320	337	775	1233	732	3970	6493	13859
15.	Poultry	90	12	1	0	183	0	65	351
II.	Animal husbandry & fishery	1014	1902	2022	2266	1849	5140	7306	21498
III.	Post-harvest and Animal husbandry (I+II)	21245	28872	32087	21795	28935	43051	43727	219713
IV.	Other activities	14608	15185	18376	41147	41894	28710	33853	193774
	Grand Total	35853	44058	50463	62943	70829	71761	77580	413487

Source: NCDC Annual Reports, various issues.

Appendix B: Activity-wise Sanction of NCDC during the period 2001-02 to 2014-15 (Rs. million): Weaker Section Schemes

Sl. No.	Items	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Fisheries	669.0	285.3	550.9	369.3	464.3	474.2	603.4	1553.8	1246.2	1033.0	934.0	1169.8	747.2	10100.4
2.	Dairy & Live Stock	251.5	36.8	15.3	0.0	32.2	157.0	320.3	336.5	775.3	1232.6	731.9	3969.8	6493.0	14352.2
3.	I C D P	1872.1	835.3	1067.5	556.5	2216.2	3522.7	1294.1	2403.7	1917.9	2708.3	4988.5	3054.8	4061.6	30499.2
4.	Coir	2.6	0.2	0.0	1.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	4.4
5.	Poultry	0.0	4.3	6.1	39.2	3.1	83.0	90.1	12.0	0.6	0.0	183.3	0.0	65.4	487.1
6.	Handloom	0.0	0.0	150.0	1.6	13.9	59.6	778.2	60.0	117.8	18.7	532.0	4.7	1509.3	3245.8
7.	Tribal	0.0	0.0	0.0	14.0	950.0	130.3	45.0	1.2	0.6	27.9	0.1	0.7	0.0	1169.8
8.	Service Coop.	0.0	0.0	0.0	1200.0	2252.3	12001.8	12298.3	12302.3	16154.6	37915.5	35342.6	25194.3	29356.0	184017.7
I.	Weaker section including service cooperatives	2795.2	1161.9	1789.8	2182.1	5932.0	16428.6	15429.4	16669.6	20213.0	42936.0	42712.4	33394.1	42232.5	243876.5
II.	Other activities	1926.8	767.7	1016.5	961.7	7435.6	41143.7	20424.0	27388.0	30250.2	20006.7	28117.1	38366.8	35347.4	253152.2
	Grand Total	4722.0	1929.6	2806.3	3143.8	13367.6	57572.3	35853.4	44057.6	50463.2	62942.7	70829.4	71760.9	77579.9	497028.7

* scheme for providing assistance to various service cooperatives like water conservation, irrigation, micro irrigation in rural areas, animal health care/ health disease prevention, agricultural insurance and agricultural credit and rural sanitation/ drainage/ sewage systems.

Source: NCDC.

Appendix C: Purpose-wise Disbursement of Refinance by NABARD (Rs. million)

Sl. No.	Purpose	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Minor Irrigation	4037	5459	4967	9206	6605	7393	5190	42856
2.	Farm Mechanization	17470	15140	17147	17630	21345	22828	30630	142190
3.	Plantation & Horticulture	3418	3745	3774	6984	15475	13619	6904	53920
4.	Forestry	64	66	65	96	160	78	64	591
5.	Dairy Development	6059	4894	7254	9181	8899	8729	9332	54347
6.	Poultry farming, Sheep, Goat and Piggery/Animal Husbandry-others	2163	2987	3498	4024	6802	4113	6239	29825
7.	Fisheries	255	772	546	475	919	379	218	3562
I.	Agriculture & Allied Activities (1 to 7)	33465	33062	37250	47595	60205	57138	58577	327292
8.	Land Development	4621	9499	3037	2957	5041	8177	8341	41673
9.	Storage& Market yard	1363	1410	1872	1708	1575	2953	3856	14737
10.	Self-Help Groups	16155	26200	31736	25454	30726	39166	38131	207568
II.	Post-harvest operations (8 to 10)	22139	37110	36645	30118	37341	50296	50328	263978
11.	SGSY	2586	2011	1515	2288	2120	1117	628	12265
12.	SC/ST- Action Plan	205	289	23	126	0	194	147	984
III.	Weaker sections (11+12)	2791	2301	1538	2415	2120	1311	775	13250
13.	Non- farm sector*	27480	27068	34660	34464	35742	51509	82320	293242
14.	Rural housing	0	0	0	0	0	0	0	0
15.	Others*	4582	5812	9998	20267	18767	16489	22862	98777
	Other activities (13 to 15)	32061	32880	44658	54731	54509	67998	105182	392019
16.	Total	90456	105353	120091	134859	154174	176743	214862	996538
	* Includes purchase of two, three wheelers by entrepreneurs, educational loans to individuals, all activities related to establishment of private schools and colleges and health care centers in rural areas, marketing. outlets for rural products, promotion of tourism and information technology, rural infrastructure clusters and so on.								

Source: NABARD.

Appendix D: Industry-wise Deployment of Gross Bank Credit (Rs. million)

Sl. No	Industry	Outstanding as on							
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Cumulative
1.	Sugar	160800	173090	192550	250940	315790	329760	347760	1770690
2.	Edible Oils & Vanaspati	72430	67630	103800	120140	132370	170530	212600	879500
3.	Tea	24830	27310	19950	21090	19910	25820	32410	171320
4.	Others	235910	269760	340460	380330	473380	647570	887010	3234420
I.	Food Processing (1 to 4)	493970	537790	656760	772500	941450	1173680	1479780	6055930
5.	Beverage & Tobacco	62940	84050	109690	133730	150550	165110	185990	892060
6.	Textiles	963980	1026950	1213750	1461030	1594140	1835360	2039980	10135190
7.	Leather & Leather Products	57420	61460	62320	73700	76330	86730	102660	520620
8.	Wood & Wood Products	31630	41380	43710	49710	61450	76690	93500	398070
9.	Paper & Paper Products	134690	159830	190740	213160	249800	282670	331400	1562290
10.	Rubber, Plastic & their Products	112130	135870	156170	259080	299040	312170	368220	1642680
II.	Other than food processing (5 to 10)	1362790	1509540	1776380	2190410	2431310	2758730	3121750	15150910
III.	Total Agro-processing (I + II)	1856760	2047330	2433140	2962910	3372760	3932410	4601530	21206840
IV.	Other Industries	6726680	8496570	10681380	13168920	16000500	18369410	20627220	94070680
	All Industries	8583440	10543900	13114520	16131830	19373260	22301820	25228750	115277520

Source: Reserve Bank of India.

Appendix E1: Questionnaires used in the Primary Survey/Case Studies by NCAER for the Cooperative Units

Confidential

National Council of Applied Economic Research

Study to identify the gap in institutional funding in the agro-processing sector with special reference to the cooperatives in India

(Reference period: April 2013 to March 2014)

(Questionnaire for procurement, processing, storage and marketing units under cooperative and non-cooperative sector)

A study sponsored by the National Cooperative Development Corporation (NCDC)
Ministry of Agriculture and Cooperation
Government of India

National Council of Applied Economic Research
Parisila Bhawan, 11, I.P. Estate, New Delhi-110002
Phone: +91 11 23379861-3
Fax: +91 11 23370164
Website: www.ncaer.org

I. Basic Information

Particulars of the unit (to be filled by the authorised person in the unit)				Code
1.	Name and address of the agro-processing unit	1.1. Name of the unit		
		1.2. Village./Town		
		1.3. District name		
		1.4.State		
		1.5. Pin code		
		1.6.Phone/Fax with STD code		
		1.7. Mobile number		
		1.8. Name of the respondent		
2.	Type of organisation [ ] Codes: Co-operative Society-1, Individual Proprietorship-2; Joint Family-3; Partnership-4; Private Limited Company- 5; Handloom-6; Others (Including Trusts, Wakf Boards, etc.)-7.			
3.	Type of registration [ ] Codes: District Industry Centers of the State/ UT=1; Chief Inspector of Factories of the State (as per ASI frame)=2; KVIC-Khadi & Village Industry Commission/Board=3; Coir Board=4 ; Others=5			
4.	4.1 Registration number [ ][ ][ ][ ][ ][ ][ ][ ] 4.2 Date of registration (dd/mm/yyyy) [ ][ ][ ][ ][ ][ ][ ][ ]			
5.	Year of initial production (units with at least 3 years in operation should be considered)	[ ][ ][ ][ ]		
6. Board of Management (Applicable in case of cooperatives only, not for private sector units)				
6.1 Elected =1; Nominated=2 [ ]			6.2 Date of last Election /Nomination(dd/mm/yyyy) [ ][ ][ ][ ][ ][ ][ ][ ]	
Category		Members (in number)	Remarks (if any)	
6.3	General			
6.4	SC			
6.5	ST			
6.6	OBC			
6.7	Women			
6.8	Nominated			
6.9	Ex officio (Managing Director)			
6.10	Total Directors			
7.	Share capital (Rs.) (wherever applicable)	As on 31.3.2014		
8.	Working capital (Rs.)	As on 31.3.2014		

9.	Assets (Rs.)	As on 31.3.2014		
10. Membership and paid up share capital as on 31st March 2014				
Category		Members (in number)	Paid up share capital (Rs.)	Remarks (if any)
10.1	Grower members			
10.2	General			
10.3	SC			
10.4	ST			
10.5	OBC			
10.6	Cooperative societies			
10.7	Other members			
10.8	State government			
10.9	Total			

II. Activity Profile (2013-14)

Major activities of the units classified under 5 broad heads, whichever is applicable in case of your unit in respect of (1) Procurement; (2) Processing; (3) End Products; (4) Storage and (5) Marketing.

1. PROCUREMENT				
1.1	Name of 3 major items procured	Item- 1	Item-2	Item -3
1.2	Source of procurement			
	Codes: Directly from Growers/ Producers =1, Agents=2, Cooperatives=3; Wholesale Market=4, Retailer=5, Any other =6 (multiple responses possible)			
1.3	Quantity procured (quintals)			
1.4	Value (Rs.)			
1.5	Products wasted (%)			
	Codes: Up to 1%=1; 1% to 5%=2; 5% to 10%=3; > 10%=4 ; No waste=5			
1.6	Reasons for wastage			
	Codes: Wasted due to inadequate storage facility=1; Wasted during transportation=2; Any other =3			
2. PROCESSING				
2.1	Name of 3 major items processed	Item- 1	Item-2	Item -3
2.2	Source from where the items have been purchased/obtained			
	Codes: Own product=1; Directly from Growers/Producers =2, Agents=3, Cooperatives=4, Wholesale Market=5, Retailer=6, Any other =7;			
2.3	Quantity processed (quintals)			
2.4	Value (Rs.)			
2.5	Capacity utilisation (%)			

	Codes: 100%=1; 75% to <100%=2; 50% to <75%=3; 25% to <50%=4; <25%=5)			
2.6	If less than 100% utilisation, for each item processed, give reasons for under utilisation of capacity			
	Codes: Inadequate supply of the product for processing=1; Funds constraints=2; Lack of demand=3; Shortage of skilled manpower=4; Lack of up to date machinery=5; Any other =6			
	3. END PRODUCTS			
3.1	Name 3 major end products produced	Product- 1	Product-2	Product -3
3.2	Quantity produced (quintals)			
3.3	Value (Rs.)			
3.4	Who are the buyers for each of the end product produced?			
	Codes: Directly to the consumers=1; Distributers =2; Wholesalers=3; Cooperatives=4, Government agency=5, Commission agents=6; Retail chain =7; Any other =8			
3.5	Products wasted (%)			
	Codes: Up to 1%=1; 1% to 5%=2; 5% to 10%=3; > 10%=4 ; No waste=5			
3.6	Reasons for wastage			
	Codes: Inadequate storage capacity =1; Inadequate preservation facilities =2; Rejection by the buyer on quality grounds=3; Unsold goods returned by buyers after date of expiry=4; Any other =5			
	4. STORAGE			
4.1	List 3 major items for which storage facility is available in your unit	Item- 1	Item-2	Item -3
4.2	Sources from where the item for storage is availed			
	Codes: Own product=1; Directly from growers/producers =2, Agents=3, Cooperatives=4, Wholesale market=5, Retailer=6, Government sources=7; Any other =8			
4.3	Storage capacity (quintals)			
4.4	Rent received from hiring out storage facility, If any, in Rs.)			
4.5	What is your current storage capacity (quintals)			
4.6	Do you want to expand your storage capacity? Codes: Yes-1; No-2			
4.7	If yes, how much additional capacity you want to increase (%)			
4.8	Is there any problem in getting loan from banks for increasing your storage capacity? Codes:Yes-1,No-2			
4.9	If yes, please state the nature of the problem			
	Codes: No scheme to loan this sector=1; No relaxation in rate of interest=2; Stringent collateral requirements=3; Repayment terms tough=4; Too much formalities and papers to complete =5; Expenditure incurred on processing and transaction cost is too high=6; any other reason =7			
4.10	Utilisation of storage capacity (%)			
	Codes: 100%=1; 75% to <100%=2; 50% to <75%=3; 25% to <50%=4; <25%=5)			

4.11	If capacity utilisation is less than 100% then please give reasons			
	Codes: Inadequate supply of goods for storage=1; Inadequate transport facilities=2; Funds constraints=2; Non availability of credit from banks and financial institutions =3; Lack of demand for storage during off seasons =4; Any other =5			
4.12	Who are the clients of your storage facilities			
	Codes: Own use =1; Farmers, growers=2; Dairy owners=3; Fishermen=4; Government agencies=5; Cooperatives=6; Private agencies =7; Retail chain =8; Others =9 _____			
4.13	Products wasted (%)			
	Codes: Up to 1%=1; 1% to 5%=2; 5% to 10%=3; > 10%=4 ; No waste=5			
4.14	Reasons for wastage			
	Codes: Inadequate storage capacity =1; Inadequate preservation facilities =2; Rejection by the buyer on quality grounds=3; Unsold goods returned by buyers after date of expiry=4; Any other =5			

5. MARKETING

		Item- 1	Item-2	Item -3
5.1	List three major items for which marketing is done by the unit			
5.2	Source from where the products for marketing are obtained			
	Codes: Own products =1; Farmers/growers =2 ; dairy owners=3; Fishermen=4; Producers=5; Cooperatives=6, Government agencies =7; Commission agents =8; Whole sellers=9; Any other =10			
5.3	Utilisation of marketing capacity (%)			
	Codes: 100%=1; 75% to <100%=2; 50% to <75%=3; 25% to <50%=4; <25%=5)			
5.4	If capacity utilisation is less than 100% then please give reasons			
	Codes: Inadequate supply of goods for Marketing =1; Inadequate transport facilities=2; Funds constraints=3; Non availability of credit from banks and financial institutions =4; Marketing has become less profitable=5; Inadequate storage facility =6; Any other =7			

III. Employment status (numbers)

	Description	Male	Female	Total
1.	Chairman			
2.	Managing Director			
3.	Secretary			
4.	Administration, accounts, storage and marketing section			
5.	Skilled workers			
6.	Unskilled workers			
7.	Technical and managerial staff			
8.	Others (specify)			
9.	Total			

IV. Status of loans: Loans applied for, loans sanctioned and loans availed from various lending institutions during the last 5 years (Figures in Rs.)

Sl. No.	Loan details		2013-14	2012-13	2011-12	2010-11	2009-10	Remarks (if any)
1.	Total Requirement							
2.	Name of the Bank / Financial Institution where applied for loan	Source-1						
		Source- 2						
		Source- 3						
3.	Amount of loan applied	Source-1						
		Source- 2						
		Source- 3						
4.	Loan sanctioned	Source-1						
		Source- 2						
		Source- 3						
5.	Loan availed	Source- 1						
		Source- 2						
		Source- 3						
6.	Repayment made so far	Source- 1						
		Source- 2						
		Source- 3						
7.	Amount outstanding	Source- 1						
		Source- 2						
		Source- 3						
8.	Type of loan applied / availed *(Secured=1; Unsecured=2)	Source- 1						
		Source- 2						
		Source- 3						
9.	**If declined please give reasons (multiple answers possible)	Source- 1						
		Source- 2						
		Source- 3						
10.	Rate of interest per annum (%)	Source- 1						
		Source- 2						
		Source- 3						
*Secured loans: Loans and advances from banks on hypothecation of fixed assets.								
**No scheme to loan this sector=1; No relaxation in rate of interest=2; Stringent collateral requirements=3; Repayment terms tough=4; Too much formalities and papers to complete =5; Expenditure incurred on processing and transaction cost is too high=6; any other reason =7.								

IV.1: Do you agree with the following problems in respect of cooperatives related to bank loan/cash credit loan besides interest rates?

Sl. No.	Problems	Agree=1; Disagree=2	Remarks (if any)
1.	Processing fees on loan too high		
2.	Service charges on loan is on the higher side		
3.	Cheque clearing charges is high		
4.	Audit charges for stock audit is high		
5.	CCA vs. non-CCA areas –cheque collection charges are high in non-CCA areas		
6.	Draft charges prepared from the loan account itself is high		

IV. 2: Please furnish the following details in respect of to NCDC Funding through State Government Guarantee or Direct Funding

	Type of funding	Type of funding	Amount applied last	Year	Amount sanctioned	Year	If Rejected, give reasons *	Remarks
I.	NCDC Funding through State govt.	Term loan						
		Investment loan						
		Margin Money/ Working capital loan						
II.	Direct funding by NCDC	----						
	*Reasons for rejection : Proposal not recommended by State Government=1; Non-availability of guarantee by the State Government =2; Non-availability of guarantee by Scheduled Bank =3; Could not provide collateral security=4; Any other reasons (specify) _____=5							

V. Borrowings from Non-institutional Sources (if any)

	Source	2013-14			2012-13			2011-12		
		Amount borrowed	Rate of interest (annual)	Duration of repayment (in months)	Amount borrowed	Rate of interest (annual)	Duration of repayment (in months)	Amount borrowed	Rate of interest (annual)	Duration of repayment (in months)
1.	Friends and relatives									
2.	Private financer / money lender									
3.	Chit fund									
4.	Credit facility by suppler of raw material									
5.	Advance payment by the buyer of finished product									
6.	Any other (specify)_____									

VI. Perceptions about Cooperative Activities

Sl. No.	Statement	Code
1.	Cooperatives pool resources for welfare of all its stakeholders	
2.	Cooperatives arrange to distribute goods at reasonable price during scarcity and shortages	
3.	Cooperatives help gain a sense of community participation	
4.	Cooperatives help achieve fair business activities that benefits all (irrespective of members or non-members)	
5.	Cooperatives helps create more equitable economic system that benefits everyone in the catchment area	
6.	Cooperatives creates immense value addition during post-harvest period which is not recognized by the policy makers	
7.	Democratic functioning in cooperatives are distorted due to grabbing of decision making process by a few individual members	
8.	Local politicians interfere into the activities of the cooperatives and influence decision making that ultimately transfer viable cooperatives to the hands of private players	
9.	Cooperatives activities are not in sync with the ground situations and it ends up as supporting system for the vested interests	
10.	Adequate training is provided to the members to cope with the supply chain management and marketing process	
11.	Cooperatives system needs thorough revamping in line with other business institutions in India	
Code: Strongly agree=1, Agree=2, Neither agree nor disagree=3, Disagree=4, Strongly disagree=5		

VII. Financial Status

A. Summarised profit &loss account of last 3 years (Rs. lakhs)

Sl. No.	Descriptions	2013-14	2012-13	2011-12
1.	Turnover			
2.	Gross profit before interest, depreciation and taxes			
3.	Interest			
4.	Cash profit (2-3)			
5.	Depreciation			
6.	Profit before tax (4-5)			
7.	Income tax			
8.	Net profit (6-7)			

B. Summerised balance sheet for the last 3 years

Sl. No.	Descriptions	2013-14	2012-13	2011-12
1.	Gross Block			
2.	Depreciation			
3.	Net Block (1-2)			
4.	Work in progress			
5.	Investments			
6.	Total fixed assets (3+4+5)			
7.	Current assets (Cash, bank balance deposits; inventory, sundry debtors, loans, advances and prepaid expenses; others if any			
8.	Current liabilities (Working capital loan; sundry creditors, interest payable, short term loans, other provisions and liabilities)			
9.	Net working capital (7-8)			
10.	Long term loans & deposits			
11.	Paid up share capital			
12.	Reserves (excluding depreciation)			
13.	Undistributed profits (+); Accumulated loss (-)			
14.	Net worth (11+12+13) or (6+9+10)			

Details of the contact person

i) Name and designation of the main respondent

ii) Address

iii) Telephone number (with STD code)

iv) Mobile number

(v) E-mail

Name of the NCAER representative:
_____

Mobile number_____

Date & time_____

Appendix E2: Questionnaires used in the Primary Survey/Case Studies by NCAER for the Cooperative Members

Confidential

Study to identify the gap in institutional funding in the agro-processing sector with special reference to the cooperatives in India

(Reference period: April 2013 to March 2014)

(Questionnaire for Farmers, Weavers, Dairy owners, Fishermen, with and without membership in primary cooperative society)

A study sponsored by the National Cooperative Development Corporation (NCDC)

Ministry of Agriculture and Cooperation Government of India

National Council of Applied Economic Research
Parisila Bhawan, 11, I.P. Estate, New Delhi-110002
Phone: +91 11 23379861-3 Fax: +91 11 23370164
Website: www.ncaer.org

1.	Land owned (Acres)_____Land leased in_____ Land leased out_____	Net area cultivated : Rabi _____ Kharif_____
2.	Main crops grown during the year	
3.	Name of the crops where the Cooperative was involved in procurement, storage, marketing or any other activity	

I. Basic Information

		Particulars of the unit (to be filled by the authorized person in the unit)			**Code**
1.		1.1 HH Serial No.			
		1.2.State;		1.3. District Name	
		1.4. Block/ Tehsil		1.5.Village Name	
		1.6. Name of the Panchayat			
		1.7. Name of the Respondent:		1.8. Relationship with the head of the household (Self=1 Wife=2 Son=3 Brother=4 Father=5 Mother=6 Daughter=7 Daughter in Law=8 Others=9	
		1.9. Age of the Respondent::_____Gender (Male =1 Female=2)		1.10. Caste : SC=1 ST=2 OBC=3 General=4	
				1.11: Religion (Hindu=1 Muslim=2 Christian=3 Others =4	
	1.12	1.12.1 Mobile:			
		1.12.2 Land line with STD Code:			
2.	Type of major Activity of the Household (Cultivation=1 Weaving =2 Dairy =3 Fisheries =4 Others (specify) _____=5 (multiple activity possible). The box with 5 parts is provided to code the type of activity pursued by the respondent household)			/___/___/___/___/___/	
3.	Name of the cooperative society with year date of joining of which the respondent or any member of the household is a member : e.g. farmers' cooperative, sugarcane growers cooperatives, cotton growers cooperatives, handloom /power loom weavers cooperative, dairy owners / milk producers cooperatives, fishermen's cooperatives etc.			Name of the Society	Year of joining
				1.	
				2.	
				3.	
4.	In what way the cooperatives in the overall provide you support and assistance in the form of supply of inputs and raw material, training, workshops, infrastructure and marketing (write in brief):				

II. Details of farming activity with intervention of cooperative (2013-14)

4.	**Details**	**Crops (3 major crops with intervention by cooperative)**			
		Crop 1	Crop 2	Crop 3	Total
4.1	Crop Name				
4.2	Area sown (acres)				
4.3	Quantity produced in quintal (Ql)				
4.4	Total quantity sold in quintal (Ql)				
4.5	**Out of which**: Quantity sold to Cooperative (Ql)				
4.6	Price per unit received from Cooperative (Price/Ql)				
4.7	Quantity sold to others including Commission Agents, Wholesalers and others (Ql)				
4.8	Price per Ql received from sales to Commission Agents, Wholesalers and others				
4.9	If not sold outside in the open market, price prevailing at the time of selling it to cooperative.				
4.10	**Interventions by the cooperative**: Supply of relevant seeds=1, Supply of manures and pesticides=2; Supply of implements and machineries for farming=3; Organising training programmes, workshop and demonstration=4; Infrastructure =5, Storage facility=6; Marketing facility =7; Any other (specify)_____5				
4.11	In the overall, give your comments on the benefits from the membership of the Cooperative and problems and suggestions if any on the functioning of the society.				

4.12	Did you apply for loan for your farming operation? Yes=1; No=2	/____/	If yes, Please give details of loan taken during the last three years from various sources

5.	Details of loan	Source	Date/Year	Amount applied (Rs.)	Purpose	Amount Sanctioned (Rs.)	Amount Outstanding	If not sanctioned, give reasons for rejection
5.1	Loan 1							
5.2	Loan 2							
5.3	Loan 3							

III. Details of weavers activities with intervention of cooperative (2013-14)

Sl. No.	Details	Hand loom	Power loom
1.	Type of weaver		
2.	Number owned /Hired at present		
3.	Owned before becoming a member of the cooperative (number)		
4.	Name of the items produced and processed		
5.	Production of various items produced during 2013-14 (mention item name and number produced)		
6.	Production of various items produced before joining the society (mention item name and number produced)		
7.	Value of output produced during 2013-14 (Rs.)		
8.	Value of output produced per year before joining the Cooperative society		
9.	**Interventions by the cooperative**: Supply of yarn=1, Supply of looms and machinery=2; Supply of tools=3; Organising training programmes, workshop and demonstration=4; Infrastructure =5, Storage facility=6; Marketing facility =7;Any other, (specify) _____8		
11.	In the overall, give your comments on the benefits from the membership of the Cooperative and problems and suggestions if any on the functioning of the society		
12	Did you apply for loan for your weaving operation? Yes=1; No=2	/___/	If yes, please give details of loan taken during the last three years from various sources

13	Details of loan	Source	Date/Year	Amount applied (Rs.)	Purpose	Amount Sanctioned (Rs.)	Amount Outstanding (Rs.)	If not sanctioned, give reasons for rejection
13.1	Loan 1							
13.2	Loan 2							
13.3	Loan 3							

IV. Details of dairy activity with intervention of cooperative (2013-14)

Sl. No.	Details	Animal type			
1.	Animal type	Cow	She Buffalo	Other (specify)_____	Total
2	Own at present (number)				
3.	Owned before becoming a member of the primary dairy cooperative (number)				
4.	Average quantity of milk fetched daily (liter) at present				
5.	Average quantity of milk fetched daily prior to intervention of the Dairy Cooperative (liter)				
6.	Quantify of milk sold to Primary dairy Cooperative per day on an average (liter) during the year 2013-14				
7.	Price of milk sold to cooperative society during the year 2013-14 on an average (per liter)				
8.	Quantify of milk sold outside cooperative i.e. to private parties daily (liter) during 2013-14				
9.	Price range at which milk sold to outside parties or wholesale price prevailing in the village during 2013-14				
10.	Has your business grown due procurement of milk by cooperates. (yes=1 No=2				
11.	If yes, by how much % your business has increased				
12.	**Interventions by the cooperative**: Supply of feed and fodder =1; Supply of medicines and nutrients for the animals=2; Supply of Sow and Buffalo =3; Organising training programmes, workshop and demonstration=4; Infrastructure =5, Bulk milk collection centre at the village=6; Facility for testing and grading =7; Any other (specify)_____8				
13.	In the overall, give your comments on the benefits from the membership of the Cooperative and problems and suggestions if any on the functioning of the society				

14.	Did you apply for loan for your diary operation? Yes=1;No=2	/___/	If yes, please give details of loan taken during the last three years from various sources

15.	Details of loan	Source	Date/Year	Amount applied (Rs.)	Purpose	Amount Sanctioned (Rs.)	Amount Outstanding (Rs.)	If not sanctioned, give reasons for rejection
15.1	Loan 1							
15.2	Loan 2							
15.3	Loan 3							

V. Details of fisheries activity with intervention of cooperative (2013-14)

Three major types of fish cultivated / catches				
Sl. No.	Details	Fish type 1	Fish type 2	Fish type 3
1.	Fish type (name)			
2.	Collection of fish from Pond=1 River=2 Canal= 3 Sea=4 (for each type, multiple source possible)	/___/___/___/___/	/___/___/___/___/	/___/___/___/___/
3.	Quantify of fish collection per day on an average - from Rs. _____ Kg , to _____Kg , in 2013-14			
4.	Price received against sale of fish per kg to cooperative , i.e from Rs._____ , to _____per Kg, in 2013-14			
5.	Quantify of fish sold outside cooperative i.e. private parties per day: - from Rs. _____ to _____per Kg, in 2013-14			
6.	Price received against sale of fish per kg outside cooperative / private parties from Rs. _____ to _____per Kg in 2013-14			
7.	**Interventions by the cooperative**: Supply of feed for fish =1; Supply of seeds=2; Medicines and nutrients for the fish=3; Supply of fishing net=4; Supply of boats =5; Training programmes=6; Workshop and demonstration=7; infrastructure =8, Storge facility=9; Marketing facility=10, Any other, please specify_____=8			
8.	In the overall, give your comments on the benefits from the membership of the Cooperative and problems and suggestions if any on the functioning of the society			

9.	Did you apply for loan for your fishing operation? Yes=1; No=2	/____/	If yes, please give details of loan taken during the last three years from various sources

10.	Details of loan	Source	Date/Year	Amount applied (Rs.)	Purpose	Amount Sanctioned (Rs.)	Amount Outstanding (Rs.)	If not sanctioned, give reasons for rejection
10.1	Loan 1							
10.2	Loan 2							
10.3	Loan 3							

VI. Details of the contact person

i) Name and designation of the main respondent	
ii) Address	
iii) Telephone number (with STD code)	
iv) Mobile number	
(iv) E-mail	
Name of the NCAER representative:	

Mobile number _____

Date and time_____

Appendix F: A few relevant facts to ascertain India's position in agriculture, investment and land dimentions

India ranked first in the world in terms of production of pulses, milk, jute and jute-like fibres in 2012 and has a share about 26%, 17% and 55% respectively in the world (Table 1.2). It ranked second in the production of vegetables, fruits, sugarcane and cotton and has a share of about 10%, 12%, 19%, and 33%, respectively. India ranked third in production of total cereals and tobacco leaves with a share of about 11% in each of these products.

Table F.1: India's position in world agriculture

Crop Production (Million tonnes, 2012)	World	India	% share to Total	India's Rank
Total cereals	2458	260	10.6	Third
Total pulses	67	17	25.5	First
Vegetables &melons	1090	105	9.6	Second
Fruits excluding Melons	637	74	11.6	Second
Sugarcane	1800	342	19.0	Second
Total milk (000 MT)	723143.3	121847	16.8	First
Jute &jute-like fibres	3.58	1.96	54.7	First
Cotton	26.14	8.50	32.5	Second
Tobacco leaves	7.37	0.83	11.3	Third

Source: Agricultural statistics at a Glance 2014. Directorate of Economics and Statistics; Department of Agriculture and Corporation.

Table F.2: Gross capital formation as % of GDP (at 2011-12)

	Agriculture	Manufacture	Service
2004-05	3	12	18
2005-06	3	13	19
2006-07	3	15	18
2007-08	3	16	19
2008-09	3	12	23
2009-10	3	14	19
2011-12	3	13	19
2012-13	2	12	22
2013-14	2	11	20

Source: Estimated by NCAER from report of "Consumption Expenditure, Saving and Capital Formation, Ministry of Statistics and Programme Implementation, GOI, 2015.

Table F.3: Trends in Operational Holdings by Size in India (million)

Category of holding	Holdings by Size			
	1990-91	**2000-01**	**2005-06**	**2010-11**
Marginal (less than 1 hectare)	63.38 (59.44)	75.41 (62.88)	83.69 (64.77)	92.83 (67.1)
Small (1.0 to 2.0 hectare)	20.09 (18.84)	22.70 (18.93)	23.93 (18.52)	24.78 (17.9)
Semi-medium (2.0-4.0 hectare)	13.92 (13.06)	14.02 (11.69)	14.13 (10.93)	13.89 (10.0)
Medium (4.0-10.0 hectare)	7.58 (7.11)	6.60 (5.50)	6.40 (4.95)	5.87 (4.25)
Large (10.0 hectare and above)	1.65 (1.55)	1.20 (1.00)	1.10 (0.85)	0.97 (0.73)
All Holdings	106.62 (100.00)	119.93 (100.00)	129.22 (100.00)	138.38 (100.00)
Average Size of Holdings (Hectare)	-	1.33	1.23	1.15

Source: Agriculture statistics at a Glance: 2014, Department of Agriculture and Cooperation. The figures in the parentheses give percentage share of landholding for each of the category in a specific year.

Appendix G: Pattern of Assistance in respect of Schemes assisted by NCDC during 2016-17

NCDC provides financial assistance in the form of loan (both Term Loan and Investment Loan) and subsidy to the cooperative societies for their development. The assistance is provided under the Central Sector Integrated Scheme on Agricultural Cooperation (CSISAC) & other Central Sector Schemes and NCDC Sponsored Scheme. The loan component is provided from out of NCDC's own funds while the subsidy is provided from outlay earmarked under the CSISAC and other Central Sector Schemes. Subsidy is provided subject to availability from Government of India (GOI) otherwise equivalent amount is provided as loan.

2. For the purpose of NCDC's funding, the States/Union Territories are categorised as under:

- **Cooperatively Least Developed States**. {Arunachal Pradesh, Assam, Bihar, Jharkhand, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura};
- **Cooperatively Under Developed States/Union Territories**. {Andhra Pradesh, Chhattisgarh, Goa, Himachal Pradesh, Madhya Pradesh, Odisha, Rajasthan, Telangana, Uttar Pradesh, Uttarakhand, West Bengal, Andaman & Nicobar Islands (UT) and Lakshadweep (UT)};
- **Cooperatively Developed States/Union Territories**. {Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab, Tamilnadu, Chandigarh (UT), Dadra & Nagar Haveli (UT), Daman & Diu (UT), Puducherry (UT), Delhi }

3. **Weaker Section** Programme shall include programmes related to (i) Marketing, (ii) Processing (Small & Medium sized processing units related to agriculture and allied activities), (iii) Storage including Cold Storage and (iv) Consumer business and activities related to agriculture & allied activities taken up by (a) Fisheries, (b) Dairy & Livestock, (c) Poultry, (d) Coir, (e) Jute, (f) Sericulture, (g) Handloom & (g) Tobacco Cooperatives. Apart from these programme/activities, Weaker Section benefits will also be extended to Tribal / Scheduled Caste/ Scheduled Tribe/ Hill area, Labour and Women Cooperatives for undertaking the above activities.

4. The pattern of funding for various programmes is given under:

A. BUSINESS DEVELOPMENT

- ✓ For All kinds of National, State, District, Regional and Primary level cooperatives for sectors/activities funded by NCDC.

Table G.1: Activities Funded by NCDC for Business Development of Cooperatives

Activity	Developed States/UTs			Under developed States/UTs			Least Developed States/UTs		
	NCDC to S/Govt.	S/Govt to Society	Direct Funding	NCDC to S/Govt.	S/Govt to Society	Direct Funding	NCDC to S/Govt.	S/Govt to Society	Direct Funding
Margin Money	(For Weaker Section Programme only as detailed at Para 3 above)								
	Loan 85% Sub 15%	Loan or SC 85% Sub 15%	Loan 85% Sub 15%	Loan 80% Sub 20%	Loan or SC 80% Sub 20%	Loan 80% Sub20%	Loan 75% Sub 25%	Loan or SC 75% Sub 25%	Loan 75% Sub 25%
	For all other Programmes								
	Loan 100%	Loan or SC	Loan 100%	Same as for developed states					
Working Capital	Loan 100%	Loan	Loan	Same as for developed states					
Share Capital	IL 100%	SC	--	Same as for developed states					
Note: SC- Share Capital; Sub- Subsidy; IL- Investment Loan									

B. INFRASTRUCTURE CREATION (Project Facilities)

- ✓ All types of small and medium sized units (other than agro-processing units) including small scale industrial units, cottage & village industries, handicrafts, allied industries for other products, cane and bamboo units, Coir Units, etc., Plant & Machinery/equipment including integrated projects (other than ICDP), establishment/renovation/ expansion/ upgradation & modernisation of Godowns, storages/Cold Storages, worksheds, purchase of looms, cooperatives/industrial estates, service and repair centres, showrooms, showrooms-cum-godowns, market yards, rearing units and grainages, fish tanks/farms, poultry farms, rearing and breeding of livestock animals, setting up of slaughter houses, purchase of livestock animals for breeding, rearing, meat, fleece, skin, wool & other by products, establishment of seed farms etc., cold storages, ice plants, freezing plants, boat building including inputs and other infrastructure for fisheries, furniture & fixtures, transport vehicles including refrigerated and insulated vehicles, installation of/purchase of computers/computerization etc., setting-up of agro-service/farmers service centres, insecticides/pesticides formulation units, units to manufacture inputs like bio-fertilizers/granular fertilizers, organic manure, creation of water harvesting/irrigation infrastructural facilities, Services Cooperatives etc. and any other related activities mandated to NCDC.

Table G.2: Infrastructure Funding by NCDC

Developed States/UTs			**Under developed States/UTs**			**Least Developed States/UTs**		
NCDC to S/Govt.	**S/Govt to Society**	**Direct Funding**	**NCDC to S/Govt.**	**S/Govt to Society**	**Direct Funding**	**NCDC to S/Govt.**	**S/Govt to Society**	**Direct Funding**
(For Weaker Section Programme only as detailed at Para 3)			**For all programmes and for activities as detailed at Para 3**			**For all programmes and for activities as detailed at Para 3**		
Loan 75% Sub 15%	Loan 50% SC 25% Sub 15%	Loan 65% Sub15%	Loan 70% Sub 20%	Loan 50% SC 20% Sub 20%	Loan 65% Sub 20%	Loan 70% Sub 25%	Loan 50% SC 20% Sub 25%	Loan 65% Sub 25%
Members' Contribution	10%	20%		10%	15%		5%	10%
For all other Programmes			**For all other Programmes – same as for developed States/UTs**					
Loan 90%	Loan 50% SC/Sub 40%	Loan 65%						
Members' Contribution	10%	35%						

- ✓ **S/Govt. – State Government; Sub - Subsidy; SC - Share Capital;**
- ✓ Subsidy subject to availability from Govt. of India otherwise equivalent loan from NCDC;
- ✓ **In case of "Computerisation" programme 100% assistance (i.e. as loan / Subsidy/ Share Capital) may be provided through State Govt. or directly to the beneficiary in all States;**

C. PROCESSING

Table G.3: Processing Activities Funded by NCDC

(i) Sugar Mills

Activities	NCDC to State Govt.	S/Govt to Society	Direct Funding
New Unit	Term Loan - 60% Investment Loan -30% Members contribution-10%	Term Loan - 60% Share Capital – 30% Members contribution-10%	Term Loan - 70% Members contribution-30%
Modernisation/ Expansion Upto 5000 TCD	Loan 50% plus Loan 40% from SDF as sanctioned by GOI	On same terms as received from NCDC	Loan 50% of PC plus 40% loan from SDF as sanctioned by GOI
Sugar By-Products - Cogeneration & Ethanol Units	-do-	-do-	-do-
Expansion beyond 5000 TCD	Loan 65%	On same terms as received from NCDC	Loan 65%
Working Capital	Loan as per requirement	On same terms as received from NCDC	Loan as per requirement

(PC- Project Cost; SC- Share Capital; SDF-Sugar Development Fund)

Note:

Investment loan to State Governments will be provided only for those sugar cooperatives which have secured firm sanction of term loan from financial institutions / banks and orders for plant and machinery are finalised etc. Term loan component for new sugar cooperatives is to be provided by financial institutions / banks etc. With effect from 01.01.2015, SDF stopped providing assistance for exclusive expansion projects. However, SDF assistance is available for projects, if expansion of capacity is upto 5000 TCD alongwith co-generation or ethanol project.

- SDF assistance for bagasse based cogeneration project is based on normative cost for different configurations.

Boiler pressure/Temp. Ata/°C	Installed capacity MW	Total Project cost (Rs. In lakh)	Project cost per MW Generation (₹ in lakh/MW)
67/510	84.5	32496	385
87/515	159.5	70565	442
110/540	110.95	60285	543

(ii) Small & Medium Sized Agro-Processing Units:

Assistance is provided for establishment of new units, expansion, modernization, diversification etc. by oil mills, foodgrains units, fruits & vegetable units, plantation crops processing units, dairy units, silk reeling/twisting, silk spinning, wool spinning and jute processing and any other agro-processing activity by cooperatives mandated to NCDC.

Table G.4: NCDC funds for Small & Medium Agro-Processing Cooperatives

Developed States/UTs			**Under developed States/UTs**			**Least Developed States/UTs**		
NCDC to S/Govt.	**S/Govt to Society**	**Direct Funding**	**NCDC to State Gov**	**S/Govt to Society**	**Direct Funding**	**NCDC to State Govt.**	**S/Govt to Society**	**Direct Funding**
(For Weaker Section Programme only as detailed at Para 3)			**For all programmes and for activities as detailed at Para 3**			**For all programmes and for activities as detailed at Para 3**		
Loan 75% Sub 15%	Loan 50% SC 25% Sub 15%	Loan 65% Sub15%	Loan 70% Sub 20%	Loan 50% SC 20% Sub 20%	Loan 65% Sub 20%	Loan 70% Sub 25%	Loan 50% SC 20% Sub 25%	Loan 65% Sub 25%
Members' Contribution	10%	20%		10%	15%		5%	10%
For all other Programmes			**For all other Programmes – same as for developed States/UTs**					
Loan 90%	Loan 50% SC/Sub 40%	Loan 65%						
Members' Contribution	10%	35%						

✓ S/Govt.- State Government; Sub- Subsidy; SC- Share Capital;

✓ Subsidy subject to availability from Govt. of India otherwise equivalent loan from NCDC;

Debt equity ratio may vary depending upon viability of the proposed project.

(iii) Cooperative Spinning & Ginning Programmes

The activities covered and pattern of funding are as under:

Table G.5: NCDC funding for Cooperative Spinning & Ginning Programmes

From NCDC to State Govt.	From State Govt. to Society	Direct Funding
(a) Establishment of New Cooperative Spinning Mills		
Term Loan 50% Investment Loan 25% Subsidy 15%	Term Loan 50% Share Capital 25% Subsidy 15% Members Contribution 10%	Term Loan 60% Subsidy 15% Members Contribution 25%
(b) Modernisation / Expansion of Existing Spinning Mills		
Term Loan 45% Investment Loan 30% Subsidy 15%	Term Loan 45% Share Capital 30% Subsidy 15% Members Contribution 10%	Term Loan 60% Subsidy 15% Members Contribution 25%
(c) Margin Money Assistance for Cooperative Spinning Mills & State Cooperative Cotton Federation		
Term Loan 85% Subsidy 15%	Term Loan 85% Subsidy 15%	Term Loan 85% Subsidy 15%
(d) Establishment of Modern Ginning & Pressing Units, Modernisation / Expansion of Existing Units		
Term Loan 50% Investment Loan 25% Subsidy 15%	Term Loan 50% Share Capital 25% Subsidy 15% Members Contribution 10%	Term Loan 50% Subsidy 15% Members Contribution 35 %
(e) Rehabilitation of Sick Cooperative Spinning Mills		
Investment Loan 75% Subsidy 15%	Investment Loan 75% Subsidy 15% Members Contribution 10%	Not Applicable (State Government's involvement is mandatory)
Subsidy subject to availability from Govt. of India otherwise equivalent loan from NCDC		

D. INTEGRATED COOPERATIVE DEVELOPMENT PROJECTS (ICDP)

Table G.6: Funding/Subsidy Schemes for the ICDP projects

SN	Activity	From NCDC to State Government			From State Government to Society			
		Loan	Sub.	Total	Loan	Share Capital	Sub.	Total
(i)	Manpower Development & Training	-	@50%	@50%	-	-	100%	100%
(ii)	Managerial assistance (applicable to PIA and Monitoring Cell also) and incentive	-	@50%	@50%	-	-	100%	100%
(iii)	For sub-projects of cooperatives in ICDP, the pattern applicable in case of normal NCDC Schemes for the given State/activity/category shall be applied with the modification that 100% of the assistance shall be provided to the State Govt. for passing on to the cooperatives.							
	Note: ✓ The total subsidy component in a project would not exceed 30% of the total project cost. ✓ The subsidy assistance available from any Departments /Ministries/ Agencies shall be dovetailed for passing on to the cooperatives. @ In the case of states classified as 'Special Category States', 100 per cent subsidy shall be given out of the scheme to State Government under items No. (i) and (ii) above.							

E. TECHNICAL AND PROMOTIONAL CELL

i. All state level cooperative federations (excluding those connected with the weaker sections programmes):

Under - Developed States	Least - Developed States
Subsidy for employment of professionals to be provided for a period of 5 years on a tapering scale. i) 100% in the first 2 years. ii) 80% in the 3rd& 4th year. iii) 70% in the 5th year.	Subsidy for employment of professionals to be provided for a period of 7 years on a tapering scale. i) 100% for the first 5 years. ii) 80% for the subsequent 2 years.

ii. All Federations connected with the weaker sections programmes:

Subsidy for employment of professionals to be provided for a period of 7 years on a tapering scale. i) 100% for the first 5 years. ii) 80% for the subsequent 2 year.

Qualifications and scales of pay and other emoluments for the various experts/professionals would be determined by the concerned federations in consultation with NCDC. **Subsidy, if available from the Central Govt.,** is proposed to be provided only for Pay, HRA, CCA, DA for 5 to 7 years. The assistance will be sanctioned by the Corporation only after careful consideration of the proposal of the institutions and assessing the need for appointment of such experts.

F. **AGRICULTURAL MARKETING INFRASTRUCTURE (AMI) - other than Storage Infrastructure, Sub-Scheme of Central Sector Integrated Scheme for Agricultural Marketing (CS-ISAM)**

Erstwhile AMIGS Scheme implemented from 20.10.2004 by GOI has been subsumed into AMI – Other than Storage Infrastructure Sub-Scheme of "CS-ISAM" from 1.4.2014.

NCDC is one of the implementing agencies to provide funds to the cooperative societies for creation of marketing infrastructure under above scheme. Under AMI – other than Storage Infrastructure, 33.33% subsidy is available for North Eastern, Hilly & tribal areas, Women &SC/ST Cooperatives and 25% subsidy is available for other category of beneficiaries. Term loan assistance is provided by NCDC under the Corporation Sponsored Scheme.

Subsidy pattern under AMI – other than Storage Infrastructure

Category	Rate of Subsidy (on capital cost)	Maximum Subsidy Ceiling (Rs. lakh)
A) North Eastern States, Sikkim, States of Uttrakhand, Himachal Pradesh, Jammu & Kashmir, UTs of Andaman & Nicobar and Lakshadweep Islands, hilly* and tribal areas	33.33%	500.00
B) **In other Areas:**		
1. For Registered FPOs, Women, Scheduled Caste(SC)/Scheduled Tribe (ST) beneficiaries and their cooperatives**	33.33%	500.00
2. For all other categories of beneficiaries	25%	400.00

* Hilly area is a place at an altitude of more than 1,000 meters above mean sea level.** SC/ST Cooperatives to be certified by the concerned officer of the State Govt.

Subsidy Ceiling

a) For land based Projects

The total subsidy which can be availed of by a co-operative society for all its projects in a District during 12th Plan period (2012-17) will be restricted to a maximum ceiling of Rs. 4.00 crore or Rs. 5.00 crore as the case may be.

b) For non-Land based Projects

(i) For projects involving standalone mobile infrastructure such as reefer van, combine harvesters (wherever permissible) etc., the maximum amount of subsidy that can be availed of by a cooperative society in a State/UT during the 12th Plan period (2012-17) is Rs. 4.00 crore or Rs. 5.00 crore as the case may be. It applies only to those cooperative societies who have not availed full benefit under land based projects. If a cooperative society has already availed the benefit of the scheme during 12th Plan period in a District, the maximum benefit eligible under this provision will be confined to maximum permissible subsidy minus the subsidy already availed.

(ii) To determine the eligibility of projects for maximum permissible subsidy, the date of sanction of loan by Financial Institutions should be between 01.04.2012 to 31.03.2017.

(iii) For the purpose of calculation of maximum permissible subsidy, all the projects sanctioned under erstwhile AMIGS since 1.4.2012 will be accounted for as if sanctioned under AMI other than storage Infrastructure Scheme.

Presently, Ministry of Agriculture & Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Government of India has stopped the sanction of subsidy for the time being for projects in 'other areas' category of subsidy pattern, except for projects of Scheduled Castes / Scheduled Tribes and their cooperatives.

G. AGRICULTURAL MARKETING INFRASTRUCTURE (AMI) - Storage Infrastructure, Sub-Scheme of Central Sector Integrated Scheme on Agriculture Marketing (CS-ISAM)

I. Construction of Godowns

Assistance under the scheme shall be available on capital cost of construction of godown including the cost of allied facilities like boundary wall, internal road, platform, internal drainage system, weighing, grading, packaging, quality certification, warehousing facilities which are functionally required to operate the godown.

The pattern of funding for the said projects is as under:

i) For New Godowns - For cooperatives located in North Eastern States, Sikkim, UTs of Andaman & Nicobar and Lakshadweep Islands, hilly Areas and projects belonging to women, SC/ST Cooperatives

From NCDC to State Govt.		From State Govt. to Society		Direct Funding	
Term Loan	56.67%	Term Loan	50.00%	Loan	46.67%
Subsidy	33.33%	Share capital	6.67%	Subsidy	33.33%
		Subsidy	33.33%	Society	
		Society Share	10.00%	Share	20.00%

Note: Subsidy subject to availability from Government of India, otherwise, equivalent loan from NCDC will be provided.

ii) For New Godowns - For cooperatives located in the states/areas other than North Eastern States, Sikkim, UTs of Andaman & Nicobar and Lakshadweep Islands, hilly Areas and projects not belonging to women, SC/ST Cooperatives

From NCDC to State Govt.		From State Govt. to Society		Direct Funding	
Term Loan	65%	Term Loan	50.00%	Loan	50.00%
Subsidy	25%	Share capital	15.00%	Subsidy	25.00%
		Subsidy	25.00%	Society Share	25.00%
		Society Share	10.00%		

Note: Subsidy subject to availability from Government of India, otherwise, equivalent loan from NCDC will be provided.

Subsidy Pattern under AMI – Storage infrastructure

Capital cost of the project for the purpose of subsidy will be calculated on the project cost as appraised by NCDC or actual cost of eligible components as certified by a Chartered Accountant whichever is lower subject to the subsidy ceiling as given below:

Category		Rate of subsidy (on capital cost)	Subsidy Ceiling	
			Upto 1000 MT in `/MT	More than 1000 MT and upto 30000 MT in `/MT
A.	North Eastern States, Sikkim, UTs, of A&N and LakshadweepIslands and hilly areas	33.33%	1333.20	1333.20
B.	In other Areas			
(i)	For Scheduled Caste (SC) / Scheduled Tribe (ST)** cooperatives	33.33%	1166.55	1000.00
(ii)	For other Cooperatives	25%	875.00	750.00

** SC/ST cooperatives to be certified by the concerned officer of the State Government.

Presently, Ministry of Agriculture & Farmers Welfare, Department of Agriculture, Cooperation & Farmers Welfare, Government of India has stopped the sanction of subsidy for the time being for projects in 'other areas' category of subsidy pattern, except for projects of Scheduled Castes / Scheduled Tribes and their cooperatives.

II. Renovation of Godowns –For cooperatives located in North East States / Projects belonging to SC/ST

For renovation of storage projects by cooperatives financed by NCDC and Cooperative banks, subsidy will be 25% of the project cost as appraised by NCDC or actual cost whichever is lower subject to subsidy ceiling of ₹187.50 per MT of storage capacity.

For sanction of financial assistance and subsidy for the projects including creation of storage capacity in the North Eastern Region and for SC and ST projects, operational guidelines 2014 of Integrated Scheme for Agricultural Marketing (ISAM) and norms of NCDC for direct funding to the societies will be followed.

H. Assistance for Boosting Seed Production component under Sub-Mission for Seed and Planting Material (SMSP) of National Mission on Agricultural Extension and Technology (NMAET)

The Corporation is implementing the above said component under Sub-Mission for Seed and Planting Material (SMSP) of National Mission on Agricultural Extension and Technology (NMAET).

Under the component, the assistance would be limited to creation of infrastructure facilities relating to seed cleaning, grading, processing, seed treating, packaging and

storage units as well as for seed testing facilities including R&D. National Seeds Corporation will be the nodal agency for implementation and monitoring of this component.

Under the above component, Credit linked back ended subsidy will be available @ 40% of the capital cost of the project in general areas and 50% in case of hilly and scheduled areas subject to an upper limit of Rs.150 lakh per project. Two percent (2%) of the total fund utilized under the component will be allowed as administrative charges to the Nodal Agecy.

Under the above component, assistance for construction of seed godown and creation other infrastructure facilities mentioned above is provided by NCDC. The pattern of funding will comprise term loan to the extent of maximum 52% of block cost, subsidy of 38% of block cost (subject to maximum block cost of ₹150.00 lakh) and society share of minimum 10% of block cost.

NOTES FOR AVAILING NCDC ASSISTANCE

5. GENERAL CRITERIA

i) Debt-Equity ratio in case of processing units and other infrastructural facilities can be adjusted keeping in view the viability of the projects. Members' contribution could be reduced provided the State Government makes good the members' part of the share.
ii) In case of projects funded under specific schemes of the Government of India/other Institutions, their pattern of assistance will apply.
iii) The Schemes of NCDC could be dovetailed with the schemes of Govt. of India/Departments of Government/any other source(s). The pattern of assistance will be adjusted accordingly, with the condition that only one central subsidy shall be available. State Governments can however contribute subsidy from their sources, if considered desirable.
iv) Assistance to cooperatives having area of operations in more than one state could be provided directly subject to suitable security by way of mortgage of assets etc.
v) Direct funding will be as per the guidelines decided by NCDC from time to time.
vi) Pattern of assistance indicates the maximum limit of financial assistance that can be provided.
vii) Programme/Project should meet the Statutory/Obligatory requirements viz. pollution, environment, hygiene etc.
viii) Cooperatives shall normally have a democratically elected Board, professionally managed and proper arrangements for forward and backward linkages.

NORMS FOR DIRECT FUNDING

6. ELIGIBILITY CRITERIA

6.1 NCDC may extend direct assistance to existing cooperatives in operation fulfilling the following conditions:

i) The society seeking assistance should have positive net-worth and its share capital should not have been eroded;

ii) The debt equity ratio considering all long term loans should normally be in the range from 65:35 to 70:30 for projects involving manufacturing/processing activities;

iii) Audit of account should be complete upto previous year within 6 months of close of the financial year. In case where audit is undertaken by Government auditors and is not completed, accounts audited by Chartered Accountant will be submitted. In the case of newly formed society the 6 months period will be reckoned from the date when it is due as per the Act under which the society is registered;

iv) The cooperative seeking NCDC assistance, or any other cooperative on which directors of this cooperative have been directors, should not have any major default in repayment of loans to NCDC/Banks/Financial Institutions;

v) Value of assets to be mortgaged to NCDC as security against the loans should have adequate security margin, normally not less then 1.25 to 1.5 times. (Shortfall in the security may be made good by way of guarantee of a scheduled bank or an FDR of scheduled bank endorsed in favour of NCDC). Margin in case of security of FDR may not be less than 1.1 times;

vi) Working capital loans to cooperative societies/federations may be secured by hypothecation of stocks/debtors/other assets, keeping a minimum margin of 20%. If considered necessary, NCDC may ask for additional security of first or second charge on the fixed assets. In case of working capital loan for government procurement or Price Support operations no minimum margin may be insisted;

vii) NCDC may ask for additional securities by way of one or more of the following;
- Government Guarantee
- Guarantee of a scheduled bank
- Personal guarantee of the Directors and collateral security

6.2 Mere fulfillment of eligibility criteria does not entitle the cooperative to be eligible for direct funding from NCDC. NCDC would examine viability of the projects with regard to various parameters as detailed below:

(a) Technical feasibility & financial viability of project;
(b) Financial soundness of the cooperative;
(c) Past financial & operational performance of the cooperative (wherever applicable);
(d) Professional expertise of the Management/employees of the cooperative;
(e) Experience of the management of the cooperative in handling similar projects;
(f) Past loan repayment performance of the cooperative (wherever applicable);
(g) Capacity of the cooperative to raise its share of project cost;
(h) Availability of adequate security for the loans sought from NCDC

Only such projects, which in opinion of NCDC are viable based on these parameters, shall be eligible for direct funding assistance from NCDC. Further, the cases of Cooperatives which do not have track record will be carefully appraised, and the background & capability of promoters of cooperative would be assiduously assessed.

6.3 The other terms, conditions and criteria are available at NCDC's website **www.ncdc.in**

6.4 **Release:**

a) NCDC will consider release of 25% ways & means advance only after the society has raised 50% and utilized 40% of equity portion of the project by way of members/state govt. share capital and internal accruals.

b) As per existing procedure, subsequent releases will normally be considered based on the expenditure incurred and committed expenses for one month as certified by a Chartered Accountant. For the projects involving NCDC assistance above ₹10 crore or as decided by MD, NCDC, such certification may be carried out by a Chartered Accountant from the panel approved by NCDC.

c) **Processing fee**: In case of direct funding, processing fee shall be charged for NCDC sanction above ₹50 lakh @ 0.5% of the sanctioned amount, not exceeding ₹3.00 lakh (0.5% of ₹6.00 crore) in each case. However, processing fee shall not be charged for working capital loans upto one year.

Appendix H: List of Cooperative Units Visited During Primary Survey/ Case Study by the NCAER Field Team

States	Names of the Units	Name of the Village	District
Assam	Gangmou Self Help Teagrowers And Tea Industry Cooperative Society	Cherelia Borgaon	Sonitpur
Assam	Bihali Adorkho Gopalan Aru Gakhir Utpadon Ss Ltd	Bihali	Sonitpur
Assam	Mahabhairab S S Ltd	Bhojkhowa Chapori	Sonitpur
Assam	Tarajan Co Operative Fishery S Ltd	Keheru Khanda	Sonitpur
Assam	Panbari Ss	Chinimari	Sonitpur
Assam	Bholaguri Satra Ss Ltd	Pubtharia	Nagaon
Assam	10 No Kolong Nadi Part-V Min Ss Ltd	Bamunagaon Raha	Nagaon
Assam	Jagial Ss Ltd	Phuloguri	Nagaon
Assam	N/15 Nishari Haria Min Ss Ltd	Palashad	Nagaon
Assam	H1/142 No Barali Mari Chitalmari Min Ss Ltd	Chitalmari	Nagaon
Assam	Sitajakhola Dugdha Uttpadak S S Ltd	Jagiroad	Kamrup
Assam	Palasbari Nomusudra Fishers	Parly	Kamrup
Assam	Uttar Rampur Gpss	Bijoy Nagar	Kamrup
Assam	Ino Boko Mduman Mahila B K S S Ltd	Mouman	Kamrup
Assam	Sorutezpur Mohila Bk Ss Ltd	Sorutezpur	Kamrup
Chhattisgarh	Durg Jila Bankar Sahkari Samiti	Dhamdha	Durg
Chhattisgarh	Maa Vidya Beej Utpadak Kreya Vikreya Krishi Sahkari Samiti	Aarang	Raipur
Chhattisgarh	Sahkari Vipran Envam Prakriya Samiti Maryadit	Aarang	Raipur
Chhattisgarh	Adimjati Krishi Saakh Seva Sahkari Samiti Maryadi	Katghora	Korba
Chhattisgarh	Adimjati Seva Sahkari Samiti	Churukala	Korba
Chhattisgarh	Devangan Bunkar Sahkari Samiti Maryadit	Kesla	Raipur
Chhattisgarh	Dhamda Sahkari Samiti Maryadit Dhamda	Dhamdha	Durg
Chhattisgarh	Dugdh Utpadak Sahkari Samiti Bangoli Block	Bangoli Block	Raipur
Chhattisgarh	Mahila Dugdh Utpadak Sahkari Samiti ,Maryadit	Ahiwara	Durg
Chhattisgarh	Matasya Udyog Sahkari Samiti Maryadit Dhamda	Dhamdha	Durg
Chhattisgarh	Prathmik Bhartiya Matasya Palan Sahkari Samiti Maryadit	Thelkabandha	Raipur
Chhattisgarh	Prathmik Laghu Vanoupaj Sahkari Samiti Maryadit	Chhuri	Korba
Chhattisgarh	Seva Sahkari Samiti Mryadit Dhamdha	Dhamdha	Durg
Chhattisgarh	Shri Laxmi Kosa Bunkar Sahkari Samiti Maryadit	Umreli	Korba
Chhattisgarh	Yuva Machua Sahkari Samiti Marydit	Salora	Korba
Gujarat	Kopar Co-Op. Shugar Ltd.	Dadariya	Tapi
Gujarat	Shri Ganesh Khand Udyog Sahkari Mandli Ltd.	Vataria	Bharuch
Gujarat	Shri Ambedkaer Juth V.S.M.Ltd.	Rajgadh	Surendranager
Gujarat	Shri Limli Hat Vansal Vandar Sangh Mandli Ltd.	Surendranager	Surendranager
Gujarat	Kheti Vibhag Seva Sahkari Mandli Ltd.	Ajrai	Navsari
Gujarat	Shri Navsari Jalalpur Taluka Bagayat Sahkari Mandli Ltd.	Navsari	Navsari

Gujarat	Nagdhara Vibhag Vividh Sahkari Karyakari Mandali Ltd.	Nagdhara	Navsari
Gujarat	Kharel Vibhag Vividh Karyakari Sahkari Mandli Ltd.	Khrel	Navsari
Gujarat	Amalsaad Vibhag Vividh Karyakari Sahkari Mandli Ltd.	Amalsaad	Navsari
Gujarat	Gandevi Taluka Vibhag Sahkari Mandli Ltd	Gandevi	Valsai
Gujarat	Gadat Vibhag Sahkari Mandali	Gadat	Navsari
Gujarat	Sahkari Khand Udyog Mandal Ltd.	Gandevi	Navsari
Gujarat	Bilimora Vibhag Vividh Karyakari Sahkari Mandli Ltd.	Navsari	Navsari
Gujarat	Kaveri Vibhag Sahkari Khand Udyog Mandli Ltd.	Chikli	Navsari
Gujarat	Manak Pur Vikas Sahkari Samiti Mandli Ltd	Manakpur	Navsari
Gujarat	Dhanori Seva Sahkari Mandli Ltd.	Dhanori	Navsari
Gujarat	Walsad Jilla Fal Ane Shakbhaji Sahakari Sangh Ltd.	Gahdevi	Navsari
Gujarat	Shri Baroli Vibhag Khand Udyog Sahkari Ltd.	Baroli Bajar	Navsari
Gujarat	Shri Prem Hat Vanat Sahkari Mandli Ltd.	Digsar	Surendranager
Gujarat	Shri Narichana Vankar Vanat Sahkari Mandli Ltd.	Narichana	Surendranager
Gujarat	Sundar Nager Udyogik Sahkari Sangh Ltd.	S. Nager	Surendranager
Gujarat	Mahakali Vankar Sahkari Mandli Ltd.	Gujarvadi	Surendranager
Gujarat	Shri Kamrej Dudh Utpadak Sahkari Mandali Ltd.	Kamrej	Surat
Gujarat	Shri Miyapur Dudh Utpadan Sahkari Samiti Ltd.	Miyapur	Surat
Gujarat	Shri Chalthan Vibhag Khand	Chaltan	Surat
Gujarat	Dhundhsa Dudh Utpadan Sahkari Mandli Ltd.	Dhundhsa	Surat
Gujarat	Dholikuin Dugdh Utpadak Sahakari Mandli	Dholikuin	Surat
Gujarat	Kharvali Dudh Utpadak Mandali	Kharwasiya	Surat
Gujarat	The Kamrej Vibhag Co-Op. Fruit & Veg. Growers Society	Kamraj	Surat
Gujarat	Abrama Seva Sahkari Mandli Ltd.	Abrama	Navsari
Gujarat	Fulvadi Dugdh Sahkari Mandli	Fulvadi	Surat
Gujarat	Vardoli Dugdh Utpadak Sahkari Mandali	Vardoli	Surat
Gujarat	Umbhel Vibhag Dudh Utpadak Mandali Ltd.	Umbhel	Surat
Gujarat	Shri Mahuva Pradesh Sahkari Khand Udyog Mandli Ltd.	Bamania	Surat
Gujarat	Mahuva Vibhag Dudh Utpadan Sahkari Mandli Ltd.	Mahuva	Surat
Gujarat	Afhfha Dudh Utpadak Samiti Mandali	Afhfha	Surat
Gujarat	Bhagumara Dudh Utpadak Sahkari Mandali	Bhagumara	Surat
Gujarat	Codada Dugdh Utpadan Sahkari Mandli	Codada	Surat
Gujarat	Mahudi Dudh Utpadan Sahkari Mandli Ltd.	Mahudi	Surat
Gujarat	Nihali Dugdh Utpadak Mandli	Nihali	Surat
Gujarat	Palsag Dudh Utpadak Sahkari Mandali	Palsag	Surat
Gujarat	Shri Allu Dudh Utpadak Sahkari Mandli	Allu	Surat
Gujarat	Shri Karchliya Dudh Utpadak Sahkari Mandli Ltd.	Karcheliya	Surat
Gujarat	Shri Madhi Vibhag Khand Udyog Sahkari Mandli Ltd.	Bardoli	Surat
Gujarat	Shri Vasvari Dudh Utpadak Sahkari Mandali Ltd.	Vasvari	Surat
Gujarat	Shri Voriya Dudh Utpadak Sahkari Mandlli Ltd.	Voriya	Surat
Gujarat	Vivakaned Dudh Utpadan Sahkari Mahila Mandli	Mavakaneda	Surat

Gujarat	Surat Jila Sahkari Kharid Vechan Sangh Ltd.	Surat	Surat
Gujarat	Shrii Delai Dudh Utpadak Mandali Ltd.	Delai	Surat
Gujarat	Talada Dudh Utpadak Mandali	Taloda	Surat
Gujarat	Mandava Vibhag Sahkari Mandli Ltd.	Panas	Valsad
Gujarat	Shri Valsad Sahkari Khand Udyog Mandli Ltd.	Paneshadi	Valsad
Gujarat	Tuterkhed Vibhag Bagayat Sahkari Mandali Ltd.	Tuterkhed	Valsad
Gujarat	Sutarpada Vibhag Bagayat Sahkari Mandali Ltd.	Sutarpada	Valsad
Gujarat	Gandevi Vibhag Vividh Karyakari Sahkari Mandali Ltd.	Gandevi	Valsai
Gujarat	Dhamni Vibhag Sahkari Mandali Ltd.	Dhamni	Valsad
Gujarat	Ajuja Dudh Utpadak Sahkari Mandali	Ajuja	Patan
Gujarat	Balaser Mahila Dudh Utpadak Kendra	Balaser	Mahesana
Gujarat	Chitrodipura Dudh Utpadak Sahkari Mandali	Chitrodipura	Mahesana
Gujarat	Dadusana Mahesanadudh Utpadak Sahkari Mandali	Dadusana	Mahesana
Gujarat	Dhinoj Kisan Dudh Mandali	Dhinoj	Patan
Gujarat	Hdiyarna Dudh Utpadak Sahkari Mandali	Chdiyarna	Mahesana
Gujarat	Jagannathpura Dudh Utpadak Sahkari Mandali Ltd.	Jagannathpura	Mahesana
Gujarat	I Shri Khodiyal Panat Sahkari Mandli Ltd.	Patan	Patan
Gujarat	Karachand Vibhag Bagayat Sahkari Mandli Ltd.	Karachand	Valsad
Gujarat	Mota Naita Dugdh Utpadak	Mota Naita	Patan
Gujarat	Munaa Dudh Sahkari Mandali	Munna	Patan
Gujarat	Patan Vanat Kamdar Industoriese Co-Op. Society Ltd.	Patan	Patan
Gujarat	Runi Dudh Utpadak Ltd.	Runi	Patan
Gujarat	Rup Pur Milk Producer Co-Operative Socioty	Roop Pur	Patan
Gujarat	Sahankhkati Dudh Utpadak Mandali	Sahankhkati	Patan
Gujarat	Sahkari Dudh Utpadak Mandli	Dugariya Pura	Patan
Gujarat	Shri Kaak Sana Dudh Utpadak Sahkari Mandali	Kaaksana	Mahesana
Gujarat	Shri Sadguru Kripa Industrial Vanakar Sahkari Mandli Ltd.	Linch	Mahesana
Gujarat	Suraj Dudh Utpadak	Suraj	Mahesana
Gujarat	Takvaasan Dudh Utpadak Mandali	Takvaasan	Patan
Gujarat	Valam Utpadak Sahkari Mandali	Valam	Mahesana
Gujarat	Velchad Dhabera Seva Sahkari Mandli	Velchad	Navsari
Gujarat	Surat Dist Co-Op Milk Producers Union Ltd.		Surat
Gujarat	Surat Jila Khadi Gramudyog Sahkari Sangh Ltd.	Bardoli	Surat
Gujarat	Karjun Vibhag Bagayat Sahkari Mandali Ltd.	Karajun	Valsad
Gujarat	Shri Kamraj Vibhag Sahkari Udyog Mandli Ltd.	Navipura	Surat
Gujarat	Shri Sayan Vibhag Sahkari Khand Udyog Mandli Ltd.	Sayan	Surat
Gujarat	Umbhel Vibhag Sahkari Bagayat Mandliltd.	Umbhel	Surat
Gujarat	Shri Khedut Sahkari Khand Udyog Mandli Ltd.	Sardarbaug, Bardoli	Surat
Gujarat	Dixal Vibhag Bagayat Sahkari Mandli Ltd.	Charsala	Valsad
Gujarat	Co-Operative Milk Producer Union Ltd.	Mahesana	Mahesana
Himanchal	The Laxmi Handloom &Handicraft Weaver's Indus.	Bhuntes	Kullu

Pradesh	Cooperative Society Ltd.		
Himanchal Pradesh	Seobag Harijan H/L H/C Wearver's Co.Operative Society	Seobag	Kullu
Himanchal Pradesh	The Angudobhi Wool Works Production Cum Sale Co.Operative Industrial Society Ltd.	Puid	Kullu
Himanchal Pradesh	The Bramh Dev Milk Production Coop Society Ltd.	Seraj	Mandi
Himanchal Pradesh	The Ghomrala Mahila Milk Production Cum Sale Coop Society Ltd.	Seraj	Mandi
Himanchal Pradesh	The Hp. Mannu Co-Op Society	Raison	Kullu
Himanchal Pradesh	The Lahaul Potato Growers Cooperative Marketing & Processing Society Ltd.	Raison	Kullu
Himanchal Pradesh	The Maha Maya Mahila Milk Production Sale &Purchase	Thunae	Mandi
Himanchal Pradesh	The Ramshila Weaver's Handloom And Handicraft Sahkari Udyogik Sabh C.	Ramshila	Kullu
Himanchal Pradesh	The Royal Harijan Weaver's Welfare Co.Operative Society		Kullu
Himanchal Pradesh	The Shikari Mata Milk Production Cum Sale Coop Society Ltd.	Seraj	Mandi
Himanchal Pradesh	Thekullu Fashion Vastroudyog Handicraft Production Cum Sale Multipurpose Coop Indus. So. Ltd.	Mohal	Kullu
Himanchal Pradesh	The Magroo Manghar Fruti And Vegerable Production Cum Marketing Coop Souety Ltd.	Chhatri	Mandi
Himanchal Pradesh	The H.P. State Co-Op. Milk Producers Federation Ltd.		Mandi
Himanchal Pradesh	The Bhutti Wearvers Cooerative Society Ltd.	Bhutti Colony	Kullu
Kerala	Palakkad Dist Co-Op Rubber Marketing Socity Ltd No P 561	Palakkad	Palakkad
Kerala	Thiruvananthapuram District Co-Operative Marketing And Processing Society Ltd No T 383	Nedunangoln	Thriuvanantha puran
Kerala	Kottukalkonam Sheerolpadaka Sahlkarana Sangam Ltd.	Kottukalkonam	Thriuvanantha puran
Kerala	Palachalkomam Handloom Wears Co.Opretive Society	Kottukalkonam	Thriuvanantha puran
Kerala	The Ottapalam Co-Op Marketing Society Ltd No P 526	Ottapalam	Palakkad
Kerala	Chempakara Manthura Vanitha, Malsyathozhilaly Vikasana Skhema Sahakarana Sangham No F T V 177	Adimali Thurai	Thriuvanantha puran
Kerala	Mulbalamada Service Co-Operative Bank No T 1197	Muthalannda	Palakkad
Kerala	Nellivila Milk Producers Co.Opretive Society Ltd.	Venniyoor	Thriuvanantha puran
Kerala	Panathura Cvcs Ltd No 415	Thiruvallour	Thriuvanantha puran
Kerala	Pachallor Cvcs Ltd No 177	Thiruvallom	Thriuvanantha puran
Kerala	Mangalodayam Handloom Weavers	Venniyoor	Thriuvanantha puran
Kerala	Chempoor Service Co-Operative Bank Ltd No T 202	Mudhakkal	Thriuvanantha puran

Kerala	Bhagavathynada Milk Producers Co.Opretive Society Ltd.	Palhichap	Thriuvanantha puran
Kerala	Venjaramood Co-Operative Rubber Marketing Society Ltd No T 299	Nellavadu	Thriuvanantha puran
Kerala	Kollappuram Matsya Thozilal Vikasana Kheshma Co-Opreative Society	Vizhijam	Thriuvanantha puran
Kerala	Pulluvilla Kochupali Matshya Vikasana Shema Sahakarama Sangam F T 190	Kanukulam	Thriuvanantha puran
Kerala	Muthalamada Agricultural Improvement Co-Op. Society Ltd No P 1360	Muthalamada	Palakkad
Kerala	Azhoor Cvcs Ltd No 305	Azhoor	Thriuvanantha puran
Kerala	Kochupally Vanitha Matsya Thozhilaly Vikasana Shana Sahayar Co-Operative Society	Karimkulam	Thriuvanantha puran
Kerala	General Marketing & Processing Co-Operativ Society Ltd. No T 1291	Nellanadu	Thriuvanantha puran
Kerala	Penukuzhi Cvcs Ltd No 3053	Azhoor	Thriuvanantha puran
Kerala	Chittur Agricultural Co-Op Marketing Society Ltd No 613	Valliya Vallam Pathi	Palakkad
Kerala	Regional Areeculchral Indust. Dat Copretive Of Kerla Ltd.	Naya Tinkra	Triculna
Kerala	Payatlu Villa Mpcs Ltd No T 188	Kotlukal	Thriuvanantha puran
Kerala	Bhagavathynada Milk Producers Co.Opretive Society Ltd.	Palhichap	Thriuvanantha puran
Kerala	Uchakkada Milk Producers Co.Op. Society Ltd.	Kottukalkonam	Thriuvanantha puran
Kerala	Payattuvila Handloom Weavers Co.Operative Society Ltd.	Kottukalkonam	Thriuvanantha puran
Kerala	Pulivila Handloom Weaver's Co.Operative Society Ltd.	Kottukalkonam	Thriuvanantha puran
Kerala	Vattavila Handloom Weavers Co-Opretive Society	Balarampuram	Thriuvanantha puran
Kerala	Vazhaimuttam Cvcs Ltd No 3061	Thiruvallocum	Thriuvanantha puran
Kerala	The Alahur Co-Operative Marketing Society Ltd No P 559	Erimayuri	Palakkad
Kerala	Mangalodayam Handloom Weavers	Venniyoor	Thriuvanantha puran
Kerala	Pulluvilla Fisherman Development Welfare Cooperative Society	Thriuvananthapuran	Karikulam
Maharashtra	Raja Ram Babu She. Milk	Sigaon	Sangli
Maharashtra	K.Sindu Agan Patil Gokul Sahakari Dodh Byav.Sahik Sanstha M.Arjunwoad	Arjunwoad	Kolhapur
Maharashtra	Shirol Taluka Sahakari Kharidi Birki Sandh Ltd.	Jay Singh Pur	Kolhapur
Maharashtra	Shir Laxmi Sah.Dodh Byavasayik Sanstha Padvawadi	Padavadwadi	Sangli
Maharashtra	Jay Kishan Sahakari Dodh Byav.Sanstha Maryadit Shirol	Shirol	Kolhapur
Maharashtra	Sribhagwati Sachimar Sahkari Sanshtha	Sevasadnan	Ramair
Maharashtra	Rajiwad Mahila Machiyar Sanshtha Maryada Rajiwada Ratnagir	Ratnagiri	Ratnagiri

Maharashtra	Mirkarwada Adarsh Machimar Sehkari Sanshtha Maryadit Mirkarwada Ratnagiri	Mirkarwada	Ratnagiri
Maharashtra	Bhatye Machiyar Sehkari Soceity Ltd		
Maharashtra	Dudh Dairy	Aip Peth Vadgaon	Kolhapur
Maharashtra	Shri Laxmi Vikash Seva Sanshtha	Pedh Badgaon	Kolhapur
Maharashtra	Shree Shakari Dudh Utpadak Prakriya	Tatyasaheb	Kolhapur
Maharashtra	M/S Shree Tatyasaheb Kore Waranna Ss Ltd	Post-Warananagar	Kolhapur
Maharashtra	Sri Subhash Sehkari Dudh Javsaiek Sanshtha	Kothji	Kolhapur
Maharashtra	Sri Kam Dhenu Sehkari Dudh Vyarik Sanshtha	Nadni	Kolhapur
Maharashtra	Yashwant Co Of So	Jadhav Wadi	Puna
Maharashtra	Gurdatt Dudh Utpa Sehsanshtha	Aaurangpur	Pune
Maharashtra	Sri Panduram Sehkari Sanshtha	Nimgaon Sava	Pune
Maharashtra	Nandini Bhaji Pala Adayagi Sabhai Nadji	Nandi	Kolhapur
Maharashtra	Bhageswar Sehkar Dudh Utpadak	Barukbadi	Pune
Maharashtra	Bhima Shankar Sakhar Karkhana Ltd	Awasqri	Pune
Maharashtra	Shankar Rao Sindhe Society	Aastra	Singli
Maharashtra	Sree Bhekhnath Sehkari Dudh Vyaharik Sanshtha Maryati	Kameri	Sangli
Maharashtra	Siganand Bhag Vikas Society Ltd	Sigaon	Sangli
Maharashtra	Ahiya Devi Mahiya Dudh Sanstha	Borgaon	Sangli
Maharashtra	Dharya Sheel Bajnutan Karyakari Seva Sanstha	Sigaon	Sangli
Maharashtra	Goykhadi Vividh Karyakari Sehsociety	Godkhindi	Sangli
Maharashtra	Roljadevi Mahla Sehdudh Utpa Sanshata	Veh	Sangli
Maharashtra	Shivraj Schaveri Doodh Vyarvyak	Bahe	Sangli
Maharashtra	Shankar Rao Gyandev Patil Serve Seva	Thawali	Sangli
Maharashtra	Dinkarrao Vadwa Vivida Karkari Sanstha	Vadava	Sangli
Maharashtra	Krishna Nagar Serve Seva Soceity Ltd	Krishna Nagar	Sangli
Maharashtra	Sri Vittal Dada S. Dudh	Vauchi	Sangli
Maharashtra	Balbhim Sehkari Dudh Vyavasyik Sanstha	Borgaon	Sangli
Maharashtra	Balna Sehkar Dudh Utpadak Sanstha	Balva	Sangli
Maharashtra	Baran Jansanstha	Dudhgaon	Sangli
Maharashtra	Manoj Dethale Aakada	Aantha	Sangli
Maharashtra	Shetkari Sarkari Dodh Vyavasayik Sanstha Mryadit Kameri	Kameri	Sangli
Maharashtra	Srijay Bhavani V.K.S.So.Ltd.Kameri	Kameri	Sangli
Maharashtra	Sri Satya Sai Dashin Bhag Vagani	Vagani	Sangli
Maharashtra	Sammed Gram Vigar Sheti Sah.Sanstha	Aidh Gaon	Sangli
Maharashtra	M.Jayt Rav Patil	Shigaon	Sangli
Maharashtra	LokmatMltiState Ko.So,	Indhgaon	Sangli
Maharashtra	Guruvarya Lalshahab Patil Co.Op Milk Products Intitutcwalwa	Walwa	Sangli
Maharashtra	Guruvarya Lalshahab Patil Vividh Karykari So,Ltd	Walwa	Sangli
Maharashtra	H.Saharkari Dodh Utpadan Sanstha	Godkhindi	Sangli

Maharashtra	Raja Ram Bapu Patil Vikash So, Bagani	Bagani	Sangli
Maharashtra	Mahadev Sah.Panipukhan	Godkhindi	Sangli
Maharashtra	Raja Ram Bapu Patil Sahakri Sanstha Karkhana Ltd	Rajaram Nagar	Sangli
Maharashtra	Shri Hanuman Sah.Dodh Utpadak Sanstha	Borgaon	Sangli
Maharashtra	Kritimata Laxmi Bai Naykwadi Mahila Sah.Dodh Utpadak Sanstha Mryadit Wadwa	Wadwa	Sangli
Maharashtra	Hanuman Gram Vigar	Kavte Piran	Sangli
Maharashtra	Hanuman Sah.Dodh Utpadak Sanstha	Korgaon	Sangli
Maharashtra	Jaybhavani Sah.Dodh Sanstha	Korgaon	Sangli
Maharashtra	Jay Vikash Sahakari Samiti	Dodhgaon	Sangli
Maharashtra	SvabhimaniDodhSanklanCenter 949 Shirol	Shirol	Kolhapur
Maharashtra	Shri Birdev Sahakari Dodh Byav Sanstha Maryadit Dharj Gupti	Dharj Gupti	Kolhapur
Maharashtra	Kothaji Vividh Karykari Sahakari Vikash Seva Sanstha M.Kothji	Kothji	Kolhapur
Maharashtra	Ahinsa Sahakari Dodh Utpadak Sanstha Marydit Umaj Woad	Umaj Woad	Kolhapur
Maharashtra	Kallappanna Avade Sah.Dodh Byav.Sanstha Mrya.Shirol	Shirol	Kolhapur
Maharashtra	Shri Dapta Dodh Utpadak Sahakari Sanstha Shirol	Shirol	Kolhapur
Maharashtra	Birob A Maharaj Co.Op Society	Badgaen	Pune
Maharashtra	Shri Dant Dodh Utpadak Sanshta Mryadit	Hirve Narayangaon	Pune
Maharashtra	Shri Swami Samarth Dodh Sah.Sanstha	Tabe Wadi	Pune
Maharashtra	Sri Ram Co.Op Society	Nimgam Saha	Pune
Maharashtra	Sri Saineswar Co,Society	Nimgaon Saga	Pune
Maharashtra	Mirkarvada Mahila Machchi Vyavasayi Kanchi Seva Sahakari Sanstha Mryadit	Mirkarvada	Ratnagiri
Maharashtra	Sakhrinata Machchi Mar So,Sosayti	Sakhrinata	Ratnagiri
Maharashtra	Sakhar Sahakari Machi Vyavasayik Sosayti Ltd.	Sakhartar	Ratnagiri
Maharashtra	M.Mchchi Mar Sahakari So,Ltd	Kasarveli	Ratnagiri
Maharashtra	Ratnagiri Machchi Mar Sahakari So,Ltd	Rajivwada	Ratnagiri
Maharashtra	Karla Machchi Vyavasayik Saiva Seva Sanstha Ltd.	Karla	Ratnagiri
Maharashtra	Amrit Dhara Sah.Dodh Sanstha	Gotkhidi	Sanglai
Maharashtra	Sant Baba Gadge Baba Grami Vigar Sah.Sanstha	Gotkhidi	Sanglai
Maharashtra	Baganee Vividh Karyakari Sahakari Vikas Sanstha	Baganee	Sangali
Maharashtra	Shree Hanuman Sahakari Dudh Vyavsayik Sanstha Martha Masucheevadee	Masucheevadee	Sangali
Maharashtra	Shree Hanuman Cooperative Soceity Li. Koregaon	Koregaon	Sangali
Maharashtra	Valava Gram Vikas Cooperative Soceity Sahakari Li Valava	Valva	Sangali
Maharashtra	Bansant Dada Patil Sahakari Dudh Utpadak Sanstha Mardit	Sutarthike	Pune
Maharashtra	Gopal Krishan Saha Dudh Utpadak Sanstha Aantha	Aantha	Sangali
Maharashtra	Miraj Vadi Seva Sahakari Soceity Nirajvadee	Miraj Vadee	Sangali
Maharashtra	Vishnu Annansahakari Dudh	Dudhgaon	Sangali
Maharashtra	Shree Varana Sahakari Dudh Utpadan	Farbevadee	Sangali
Maharashtra	Hutala Rajendra Sahakari Dudh Sanstha Li	Shigaon	Sangali

Maharashtra	Shree Gopal Dudh Utapadak Sahakari Sanstha	Ankar Khop	Sangali
Maharashtra	Shree Anbika Shetkari Sahakari Dudh Utpadan Vv Pur Soya Marya Devali	Davlee	Sangali
Maharashtra	Rajarambabu Patil Sahakari Dudh Sangh Ltd	Islamput Midc	Sangla
Maharashtra	Kasave Digraj Vakash Sanstha Marya Kasabe Dirgaj	Dirgaj	Sangali
Maharashtra	Shree Datt Varna Sahakari Dudh Utpadak Sanstha	Dudhgaon	Sangali
Maharashtra	Datt Sahakari Dudh Utpadak Sanstha Li Koregaon	Koregaon	Sangali
Maharashtra	Laxmi Mahila Sahakari Dudh Utpadak Sanstha Marya Yedenipanee	Yedeneepanee	Sangali
Maharashtra	Padam Bhushan Vansant Dada Patil Sahakari	Dudhgaon	Sangali
Maharashtra	Ganga Gauri Dudh Kendra	Aasta Vajarvadee	Sangali
Maharashtra	Kai Dada Saheb Patil Nagari Sahakari Sanstha	Ankal Khye	Sangali
Maharashtra	Karandvaade Sarvseva Sahakari Soceity Li Kardevadee	Kardavadee Sangali	Sangali
Maharashtra	Shree Veeracharya Baba Saheb Kuchnere Sahakari Sanstha	Dudhgaon	Sangali
Maharashtra	Suryaday Grameen Vegarshet Sahakari Sanstha	Kve Piran	Sangali
Maharashtra	Rajaram Babu Pateel Sahakari Dudeh Sanstha Baganee	Baaganee	Sangali
Maharashtra	Rajaram Babu Dudh Utpadak Sanstha Koregaon	Koregaon	Sangali
Maharashtra	Pachbhushan Vansat Daca Patel Shaneem Kitkheti Sahakarsanstha Dudhgaon	Dudhgaon	Sangali
Maharashtra	Vasantdada Patil Vi Ka San Soceity Li Yedenipanee Valva Ji Sangali		Sangali
Maharashtra	Bhimrav Patil Vikas Soceity	Kameri	Sangali
Maharashtra	Hinkeshari Marutee Mane Vikas Seva	Dadevishan	Sangali
Maharashtra	Hindurav Patil Nana Sarv Seva Sahakari Sosa Yedenipanee Valva Jila Sangali	Yedeniyanee	Sangali
Maharashtra	Sharad Sahakari Sakar Karkhana Narade	Narande	Kolhapur
Maharashtra	Jayant Patil Vividh Karya Seva Sahakari Soceity Jila Shigaon	Shigaon	Sangali
Maharashtra	Aashta Sarvseva Sahakari Soceity Li Aashta	Aashta	Sangali
Maharashtra	Wanshree Nana Saheb Mahadeek Ma Aa Co	Dudhgaon	Sangali
Maharashtra	Sangram Dudh Sakal Kendra Miraj Vadee	Miraj Vadee	Sangali
Maharashtra	Karmverana U Rav Pa Sahakari	Edhgaon	Sangali
Maharashtra	Aadarsh Sahakari Dudh Vyavasayik Sanstha Baganee	Bangnee	Sangali
Maharashtra	Sankari Sahakari Dudh Utpadak Sanstha Bharya Vagnee	Bhagnee	Sangali
Maharashtra	Vajeerav Gram Vikash Kheti Sahakari Sanstha	Ankal Khoy	Sangali
Maharashtra	Shanee Prasad Dudh Utpadak Sakalajod Miraj Vaadi	Miraj Vadee	Sangali
Maharashtra	Shubhlaxmee Mahila Varsahakri Dudh Utpadak Sanstha Farvevalee	Farnevalee	Sangali
Maharashtra	Katras Daomg Ime Zilla Sahakari Dndh Leppadank Sanga Mangadit		Pune
Maharashtra	Shree Hanuman Mardvadee Seva Sahakari Soceity Li Mardvadee Aanta Sangali	Mardvadee	Sangali
Maharashtra	Shree Chandprabhnath Digamber Vi Ko Soceity Aashta	Aashta	Sangali
West Bengal	Poum Co-Op Ams Ltd.	Memla	Burdwan
West Bengal	Mudiali Fishermen's Co-Operative Society Ltd		South24pgs

West Bengal	Santipur Kutirpara Co-Operative Weavers Society Ltd	Shantipur	Nadia
West Bengal	Sridharpur Co-Operatative Bank	Sridharpur	Burdwan
West Bengal	Sahebganj No 1 A S K U S Ltd	Sonchalida	Burdwan
West Bengal	Asaharu Womens Milk Producers Co Operative Society Ltd	Asharu	North 24 Pgs
West Bengal	Satgachia S.K.U.S Ltd.	Satgachia	Burdwan
West Bengal	K.K.S.H	Kashem Nagar	Burdwan
West Bengal	Ajapur U.C.A.C.S Ltd	Sanchra	Burdwan
West Bengal	Pallymanga Kaligram Skus	Tentulia	Burdwan
West Bengal	Pindira Skus Ltd.	Pindira	Burdwan
West Bengal	Sudpur Skus Ltd.	Narhyanpur	Burdwan
West Bengal	Kulut Samabay Krishi Unnayan Samity Ltd	Kulut	Burdwan
West Bengal	Hat Daluibazar Sashya Utpadan O Bikray Samabay Samity Ltd	Dalaibazar	Burdwan
West Bengal	Sani Ghatgola Skus Ltd	Metadanga	Burdwan
West Bengal	Mahila Baranasipur Dughdha Utpadhak Samabay Samity Ltd	Baranasipur	North 24 Pgs
West Bengal	Jana Kalyan Mahila Dugdha Utpadak Samabay Samity	Khardha Kulberia	North 24 Pgs
West Bengal	The Burdwan Central Co Operative Agricultural Production And Marketing Society Ltd	Meflari	Burdwan
West Bengal	Banahugli Fishermen's Co-Operative Society Ltd.	105 Bt Road	North 24 Pgs
West Bengal	Block Chora S K U S	Bockchora	North 24 Pgs
West Bengal	Swarupdaha Uttarpara S K U S	Swarupdaha	North 24 Pgs
West Bengal	Tantishal G S S K U S Ltd	Tantishal	Hooghly
West Bengal	Adambandh S K U S Ltd	Muthadanga Bazar	Hooghly
West Bengal	Kalna Ii C A D P F S Co-Operative Society	Siristala	Burdwan
West Bengal	Nahati Samabay Krishi Unnayan Samity Ltd	Naihati	Burdwan
West Bengal	Kadpur Skus	Kadpur	North 24 Pgs
West Bengal	Pipli Mahila Uppadan Dli Samabay Samity	Pipli	North 24 Pgs
West Bengal	Pipli - Ii Mahila Uppadan Dli Samabay Samity	Pipli	North 24 Pgs
West Bengal	Doharpota Skus	Baneswar Pur	North 24 Pgs
West Bengal	Boinchicadc Berela Sech 'O' Ssuus Ltd	Berila	Hooghly
West Bengal	Vivkananda Sama Bay Krishi Unnyaan Samity Ltd	Kanariya	Hooghly
West Bengal	Nischintapur Skus Ltd	Madaiyhansa	Burdwan
West Bengal	Mohisgoriagram Sabha Samabay Krishi Unnayan Samity Ltd	Mohisgoria	Burdwan

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Parisila Bhawan, 11 Indraprastha Estate, New Delhi 110002, India.

Tel: + 91 11 2337 9861-3 **Fax:** + 91 11 2337 0164 **Email:** infor@ncaer.org

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