CAFRAL
CENTRE FOR ADVANCED FINANCIAL RESEARCH AND LEARNING
Promoted by Reserve Bank of India

# Financing Agriculture Growth

May 2012

## Introduction

Agriculture sector is the largest employer in the Indian economy with 600 million people engaged in it. This makes India the country with the largest number of people engaged in agriculture. India is also the world's largest producer of milk in the world. In the last 60 years the food grain production has grown 5 times to 250 mt with roughly the same quantum of land under cultivation. With rise in income levels, the composition of the Indian thali has undergone changes, with food grains now accounting for less than 35% of food expenditure. Correspondingly, the Indian farmers have diversified production and increasingly higher share in output is seen of non-cereals like dairy, fruits and vegetables, etc. Overall agri-trade balance continues to be positive and India has been a net cereal exporter for many years.

However, there are significant challenges posing the agriculture sector. While the food grain production has gone up, it has not kept pace with the population growth and hence net availability kg/capita has fallen across most food categories. Crop productivity and milk yields in India compare unfavourably with global benchmarks. Higher efficiency in the use of natural resources like water and inputs like fertilizers, etc. is required to sustain the growth. Lack of proper infrastructure results in 10-13% of GDP being wasted per annum. Only 2% of produce is stored in temperature-controlled environment. Increasingly, there is a demand for higher value added products. There is need for business models that can offer quality and traceability to the consumers. Higher investment from the private sector is required to fuel this growth and poise India to be the world's food supplier.

The objective of the conference is to look at opportunities for doing sustainable business in the agriculture sector, given the constraints, in a manner that achieves growth with equity and is profitable. To explore partnerships between farmers, entrepreneurs, scientists and bankers that encourages efficiency and productivity and enhances and preserves value.


**Policy framework issues**

1. APMC Act Implementation - The Model APMC Act still needs to be implemented across all the states in India. 16 states have adopted it till date but the implementation has not been effective on account of prevalence of multiple levels of middlemen. Pre-mandi sales take place and there is lack of transparent pricing mechanisms being available to the farmer.
2. Minimum Support Price (MSP) is distorting production behaviour and building inefficiencies.
3. Uncertainty over roll-out of GST – Uniform taxation across states would lead to elimination of double taxation on intra-state movement of agri commodities thereby help in reducing cost escalation in agri commodities supply chain. Multiplicity of taxes and tax rates makes it difficult to move the produce efficiently from the producing states to the consuming states.
4. SARFAESI Act – The enforceability of this act on agricultural land is very difficult. However, its important to have a deterrent for the borrowers in some form to ensure the efficacy of lending
5. Land acquisition - Long delays in land acquisition for agri infrastructure projects such as warehouses, mega food parks, etc. results in significant bottlenecks in implementation and cost escalation. State governments should facilitate land acquisition by providing speedy regulatory approvals, such as land conversion. Warehouses should be treated as agricultural extension service and therefore no approval for land conversion should be required.
6. Priority sector lending definition – Lending to dairy, loans for construction of warehouses, etc. should be included in priority sector lending.

7. Quality of veterinary services in the country is abysmally low.

**Aggregators v/s Middlemen**

One of the main causes of inefficiencies of the supply chain is the elongation of the supply chain due to the presence of many layers of middlemen. This results in artificial price escalation and lack of transparency to the farmer about market prices. For example there is tremendous price competition among processors of edible oils and pulses, but the farmer does not get the benefit since all the speculations are made in the middle of the value chain. Milk is probably the only commodity where the farmer gets at least 70-85% of the consumer price. It is therefore important to have efficient marketing system where there is genuine value add at each stage in the supply chain and irrelevant intermediation is eliminated.

It is also important to recognize that agriculture surplus is small and dispersed with wide disparity between peak and lean period arrivals. The lack of scale at the individual farmer level and very small land holding sizes makes aggregation a very critical component in bringing efficiencies and economies. Producer companies, co-operatives, farmer clubs, joint liability groups and more, are important aggregators that can play a useful role in marketing of produce, provision of extension services, negotiation of input prices, dissemination of credit, last mile outreach for payments, etc. Aggregators providing significant value-add as above must be recognized as important stakeholders in the value chain and integrated in the overall development plan. The Committee headed by M.V. Nair to examine classification of priority sector lending has recommended phasing out of priority sector lending by banks through intermediaries. It is recommended that RBI review this recommendation in the light of the useful role aggregators are playing in the growth of this sector. Aggregation by intermediaries is critical in bringing down the transaction costs.

**Opportunities for Banks in agriculture financing**

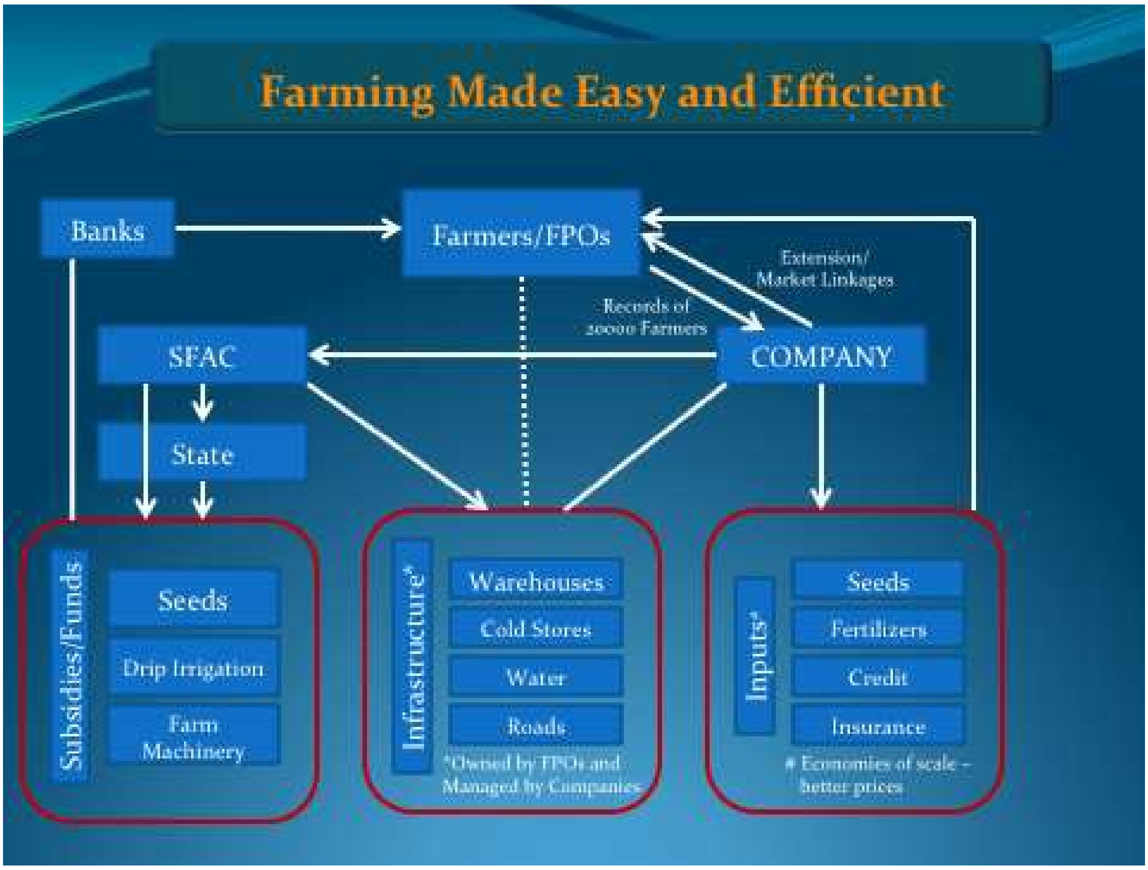
The total agri credit has been rising steadily each year and it has crossed Rs. 5 lakh crore in FY 2011-12. However, bank credit has predominantly been crop loans and there are significant opportunities in other areas of the agri value chain for the banks to finance and provide the necessary impetus to this sector. It is important that banks not only finance production but finance productivity.

1. Integrated Agriculture Development Projects

   Balasore project by NABARD and Million Farmers' Initiative by FICCI and Small Farmers' Agri-business Consortium (SFAC) are two excellent examples of integrated agriculture development projects which are outcome focused and ensure a holistic approach to the agriculture growth through the integration of all stakeholders like farmers, input providers, extension services, government subsidies, financing and technology. What makes this model unique is that there are well defined outcomes, strategies and timelines that are tracked in a project mode to ensure proper execution and close co-ordination between all the stakeholders. The banks can take the lead to replicate this across the country by dovetailing the district agriculture plan along with the credit plan and playing the coordinator at the district level in a focused outcome driven manner. This approach would throw up many more opportunities for financing in addition to crop loans, such as bank credit for soil testing facilities, farm mechanization, extension services and storage. Close monitoring and integrated approach of the project would also result in lower risks for the banks.

*Million Farmer's Initiative*

*Million Farmer's Initiative is a Public-Private partnership framework for integrated agricultural development while leveraging Rashtriya Krishi Vikas Yojana (RKVY) investments. It envisages that the key aggregator would be private corporate who would propose integrated agricultural development projects involving minimum of 10000 farmers and encompassing all activities from "production" to "marketing". Monitoring of projects and achievement of outcomes would be done by independent agency and performance based incentives would be paid to the corporate. In addition, farmers' subsidy would be directly credited to their account or routed through the company.*




2. Leveraging the Business Correspondent model

The Business Correspondent (BC) model provides tremendous flexibility to banks to expand outreach in remote areas. The Union Bank of India and NDDB project for milk pourers is one such example of how payment mechanisms at the last mile can be made efficient through use of technology and partnership with BCs. Imaginative use of the BC model by the banks combined with mobile, smart card, internet and other technolgies can result in significant increase in the outreach of bank credit at an affordable cost.

*NDDB Milk Pourers Project*

*National Dairy Development Board (NDDB) is world's largest dairy development board with operations spread across 1,17,575 village co-operative societies with 12.4 milion farmer families. 21.5 million litres of daily milk procurement is done.*

*NDDB was struggling with a complex and inefficient administrative process to reach out payments to millions of milk pourers. NDDB made payment to the pourers on weekly or fortnightly basis. The amount due to the pourer based on the price and the quantity was credited to the account of the Sahayaks. Sahayaks withdrew cash and made cash payments to the pourers or alternatively payments were made to the accounts of the pourer with a local bank. In this model, on fortnightly basis, pourer was required to make atleast 2-3 pounds to nearby bank branch for drawing the amount for which he incurred transport charges apart from loss of the day's earnings.*

*Union Bank of India through the Business Correspondent (BC) model introduced an end-to-end process that was faster, transparent and hassle-free both for NDDB and milk pourers. As a first step of the process, based on the data of milk pourers provided by NDDB, the BC sources the simplified KYC, member codes, and captures demographics and biometric data to open a no-frills savings bank account over smart card. The cards are personalized and handed over to the pourers which facilitates banking transactions at their doorstep through BC agent using handheld device. Once the cards are issued a list of pourers is provided to NDDB for verification with their records. NDDB issues an e-pay order and a list showing pourers-wise details like account number, URN number, amount to be disbursed, etc. The funds get transferred from NDDB to the savings bank accounts of the milk pourers. The agents authenticate the milk pourers through the finger print data on the smart card. Post authentication, cash is disbursed to the milk pourer by the BC agent at the doorstep of the milk pourer. The transaction history and the account balance is updated on the smart card after each transaction. Loan products are also offered to the milk pourers by the bank.*

3. Warehouse construction financing

As per National Collateral Management Services Limited (NCMSL), there is a total warehousing gap of 35 MT, which presents an opportunity for private entrepreneurs and banks to finance new capacity creation. Land acquisition is a major hurdle in warehouse construction and this can be addressed by exploring partnerships with PACs for land lease. Grameen Bhandaran Yojana, a Central Sector Capital Investment Subsidy Scheme and NABARD refinance facility is available for construction of warehouses. The long construction and gestation period of warehouses requires long-term loan products from banks. The existing 7 year period for repayment of loan to be eligible for interest subvention is too short.

4. Warehouse receipt financing

Warehouse Development Regulatory Authority (WDRA) has launched the Negotiable Warehouse Receipt (NWR) System whereby the warehouse receipts issued by the warehouses registered with the WDRA would become a fully negotiable instrument backed by Central Legislation. Banks should insist on accredition of warehouses and provide better lending rates and margins against NWRs. NWRs can also be used as a tool for procurement which would result in reduced carrying cost, better prices for farmers and less wastage. WDRA would soon be launching electronic warehouse receipts and also an accredition model for cold storages.

5. Cold chain financing

Presently the production of fruits and vegetables is 150 MT and the cold storage capacity is only 23 MT. There is tremendous opportunity for financing Deep Freezers, Ripening Chamber, Cold store, Bulk milk coolers, etc. Projects of apples in Kinnaur, Himachal Pradesh, and bananas in Tamil Nadu have demonstrated that cold chain is viable. Specific commodities should be identified from specific states and then a complete value chain and branding is created around them. The Ministry of Food Processing is offering subsidies. Blue Star Ltd., a key supplier of cold chain equipment is working extensively in different states to create a complete value chain for various fruits.

*Blue Star Ltd.*

*Cold chain industry is growing at the rate of 30% p.a. The feasibility report of J & K apples demonstrates that despite the constraints, cold chain investments are viable and new entrepreneurs are willing to make investments. Another project that Blue Star is working on is Tamil Nadu Bananas. The concept is to pick up a specific commodity from a particular state and promote it. Just like Florida Oranges, Tamil Nadu Bananas are being branded. Branding and promotion means that the product must be of high quality and therefore the ripening should be proper and for that a proper and complete cold chain is created.*

6. Dairy financing

Financing individual famers with 2-3 animals is not a viable approach to dairy development. Farmers are looking at establishing dairy farms on a commercial basis. Banks should look at larger size projects with a holistic approach i.e. have a say in selection of better breeds, look at breeding policies, include scientific animal nutrition components and practices that result in lower feed cost and higher yield. Capital investments such as bulk milk coolers, processing units, etc. should be included in the project cost. The Hatsun dairy model and Gokul dairy female calf rearing programme, are good examples where the dairy not only does procurement but also provides a range of extension services to the farmers like breeding, feeding, etc.

7. Contract farming

The model APMC Act provides for permitting contract farming by registration of contracts with APMCs, allowing purchase of contracted produce directly from farmers outside market yards, and exemption of market fee on such purchases. There have been examples of successful implementation of contract farming projects such as potato farming programme in West Bengal. However, more than enforceability of contracts the key to success lies in winning farmer loyalty through “contact farming” i.e. have multiple pronged engagement with the farmer. Banks could look at providing a whole basket of products such as loans, insurance, savings, payment solutions.

8. Funding start-up entrepreneurs

In order to meet the huge growth challenge ahead, there is a need for thousands of new enterprises to enter the eco-system across the entire spectrum of the agri value chain. Banks through hassle-free provision of credit should encourage such enterprises with viable business propositions.

*Samriddhi*

*This unique initiative by a first generation entrepreneur provides pre-packaged branded vegetables in AC cart through roadside vegetable vendors. The vegetables are packaged in perforated food grade transparent material and labeled with Samriddhi brand, MRP, weight, name of vegetable and barcode. It results in time and cost saving for the consumers and also facilitates ease in monitoring, handling and management because of packaging. The other innovation of this model is the inclusivity of landless farmers (procurement of vegetables is done from them) and roadside vegetable vendors in the value chain. Both these categories are financially excluded by banks and are able to borrow only from micro-finance companies or moneylenders. Through models like that of Samriddhi, the banks can reach out financial products to them.*

9. Agri extension services

Many service providers are providing information dissemination, technical inputs and extension services at the doorstep of farmers through use innovative technologies and personal contact programmes. Kisan call centres in vernacular languages are being extensively used by farmers and are helpful in problem resolution and providing expert advise. Studies have demonstrated a positive impact in farmer's productivity/income through sustained use of extension practices. Banks should integrate the use of extension services in their project plan.

*Grow More Pulses – Project by Rallis India for improving pulses productivity*

*Based on WHO recommendation of per capita consumption of pulses for India, India would require approx. 38 mn tones of pulses by 2017-18. To meet this demand, India would require to double its pulses acreage at current yields or double yields at current acreage. Under its "Grow More Pulses" project, Rallis is providing technical and commercial support to the farmers to improve pulses productivity and prices. State Bank of India has been roped in to provide financing to farmer groups growing pulses under this programme.*

*Digital Green – Social Networks for Agricultural Development*

*Over the last three years, through their network of partner extension systems and communities, Digital Green has produced over 2,200 short, 8-10 min videos. (All of which are available for free on YouTube.) The content spans a variety of topics and genres: from finance to agronomic practices to market linkages to government schemes. The idea is to showcase best practices in agriculture through these videos. Some farmers even compete to appear "on video" in a "Farmer Idol" sort-of program to be seen as a role model in their community. These videos are then shown through offline pico projector (a small palm sized device) in the villages. The first two questions that farmers often ask when they watch these videos is "What is the name of the farmer in this video?" and "Which village is he or she from?" to authenticate that the content comes from a source that they can identify with. The localized content and the actual experience of seeing a particular process being adopted by a fellow farmer, multiplies the effectiveness of extension services multi-fold. As a farmer participates in each offline pico projector screening, Digital Green captures data on the videos they watch, the questions they ask, and the practices they adopt to build individual histories for each farmer. In near real-time, this data is used to target videos based on farmers' needs and interests and relate how the practices they take up affect their productivity and income – essentially, a sort-of Nielsen ratings for the 100,000 farmers watching videos today. As per Digital Green, this approach can improve the efficiency of existing government and NGO agricultural extension agencies by a factor of 10 times, per dollar spent.*

10. Concept of drip irrigation has proven to be beneficial in dry crops like cotton as well as for water guzzling crop like sugarcane. Jain Irrigation Banks could explore opportunities of funding drip irrigation projects and also include awareness building programmes for farmers which educate them about optimal water utilization.

11. Agri infrastructure projects such as Mega Food Parks, Terminal Markets, etc. should be encouraged for funding by banks with the support of the government in providing subsidies and facilitating approvals for such projects.

12. Banks should build domain expertise in the agri sector with knowledge development in order to provide the required inputs and guidance to the borrowers. Banks also need to enhance product development through structured solutions to cover a range of risks based on the specific requirements of the borrowers. They must constantly update themselves of the government initiatives and subsidies available so as to leverage them fully for their borrowers.