

Crop Credit Flow in Maharashtra, India, with Special Reference to Postrainy Season Sorghum

Credit Brief

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Introduction

Agriculture is being increasingly recognized as a commercial activity. Modern farm technology is, to a great extent, capital intensive. Production requires modern inputs of good quality, and it needs expenses to be allocated for mechanization and related costs. The farming community thus requires agriculture credit for various activities such as land development, minor irrigation, farm mechanization and for the purchase of inputs to cultivate annual and perennial crops. Due to the inadequacy of credit facilities at reasonable rates, many farmers, though willing to adopt new/improved technologies, are unable to invest in improved seeds and manure, or to introduce better techniques. Various research studies have shown that the credit constraint

is an important reason for slow adoption of improved technology. It is therefore of the utmost importance that the financial requirements of farmers are adequately met.

Agriculture finance is the supply of and demand for funds in the agricultural sector, or, the use of capital in agriculture. Agriculture finance/credit is said to be the lifeblood of increased production in modern farming. The Governments' various credit policies have ensured the flow of bank credit to finance a range of farm related activities in the form of short-term/long-term credit loans.

This brief looks at the various options of credit available to farmers cultivating annual crops; more specifically, sorghum in Maharashtra.



Commission agents explaining informal credit arrangements.

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Bank officials briefing HOPE project staff members and partners.

To enable farmers to access credit, it is intended to facilitate credit to them through various means, primarily in association with the banks existing in the project target area and through self-help groups (SHGs) and farmer groups promoted under the Harnessing Opportunities for Productivity Enhancement (HOPE) project.

Sorghum Production

Sorghum (*Sorghum bicolor*, Moench), a dual purpose crop, is cultivated for its grain, for human consumption, and as fodder for livestock feed. Sorghum is the third most important food grain in India. The crop is grown both as a rainy-season (kharif) crop, June to October, and as a post-rainy season (rabi) crop, September to February. The cultivation of the crop is concentrated in a few states such as Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh and Rajasthan, which account for the bulk of the area under the crop (98%). During 2007, the rainy-season sorghum accounted for 45% of the all-India area and 52% of the production, while post-rainy season sorghum accounted for the rest, ie, 55% of the area and 48% of the production. The area and production of post-rainy season sorghum is more specialized, with only three states, ie, Maharashtra, Karnataka and Andhra Pradesh, accounting for 90% of the area and 98% production.

In Maharashtra, sorghum is grown mainly as a rain fed crop during both rainy and post-rainy seasons. Maharashtra has the highest area and production of post-rainy season sorghum in India. During 2007-08, post-rainy season sorghum was cultivated on an area of 2,877 thousand hectares in Maharashtra, with a production of 2,119 thousand tons. Productivity levels are thus low at 597kg/ha¹. Within Maharashtra, Marathwada and western Maharashtra, post-rainy season sorghum is a major cultivated crop, and accounts for 94% of area and 91% of production of post-rainy season sorghum in Maharashtra. Both these regions are included as clusters under the HOPE project. Post-rainy season sorghum cultivated in Maharashtra is utilized primarily for consumption as food because of its superior grain quality compared to rainy season sorghum, which is reflected in its higher grain price. Fodder (*kadbi*) obtained from post-rainy season sorghum also fetches a high price, due to its palatability as livestock feed.

Input Requirement for Post-rainy season Sorghum Cultivation

Post-rainy season sorghum cultivation generally starts during the second fortnight of September and ends in March-April. The seed-to-grain conversion of post-rainy season sorghum is approximately 180 days. Seed

¹Higher yield of kharif sorghum of 1081 kg/ha is attributed to use of hybrids and improved cultivars grown under improved production technology.

(10 kg per hectare), farm yard manure (FYM 10-12 cartloads), NPK fertilizers (40kgs each of N, P and K), plant protection chemicals (Endosulphan and Atrataf), irrigation (3-4 if the farmer has irrigation) and labor (human and bullock) are the major input requirements for cultivation of postrainy season sorghum. If required and available, supplementary irrigation during acute moisture stress would help maintain its yield.

Credit Requirement for Postrainy season Sorghum Cultivation

Credit is required for the direct costs for purchasing inputs; mainly seed, fertilizer and plant protection chemicals to cultivate postrainy season sorghum. Since postrainy season sorghum is an annual crop with a cultivation-to-harvesting window of 180 days, the requirement of credit for postrainy season sorghum is for the short term.

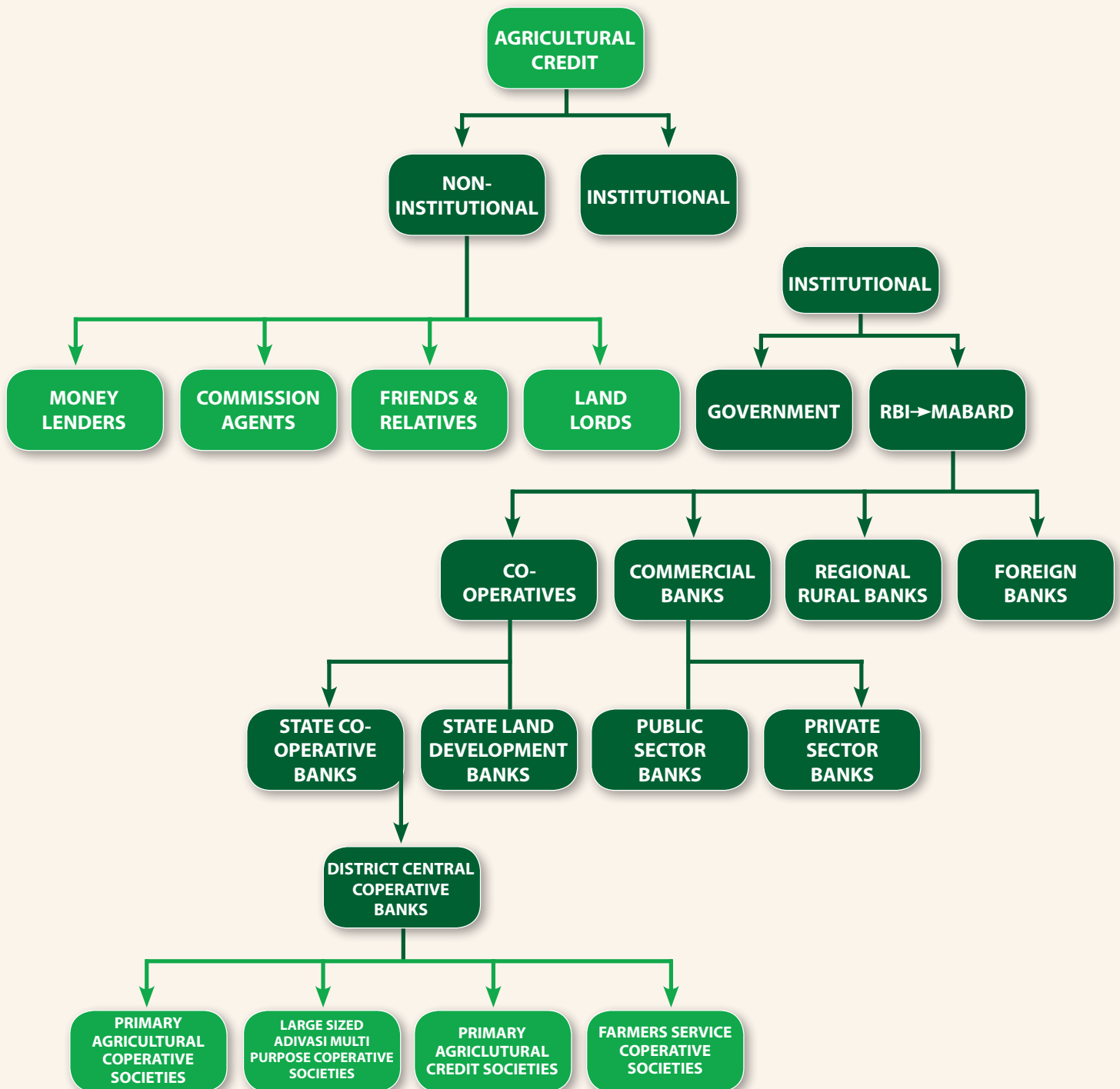


Figure 1. Credit flow for Agriculture in India.

The average cost of cultivation (cost C, which includes both actual and imputed costs) of post-rainy season sorghum in Maharashtra, works out to Rs 15,000 per hectare. (Report cost of cultivation of scheme, 2008-09, Government of Maharashtra).

Sources of Credit

The flow of agricultural credit in India is categorized as institutional and non-institutional. Figure 1 presents a schematic representation of credit flow from these two sources.



Farmers Club members interacting with bank officials.

Access to Credit

Though India has a wide network of rural financial institutions, many of the rural poor are excluded from the network due to inefficiencies in the formal finance institutions, a weak regulatory framework, high transaction costs and risks associated with the lending to agriculture. As per the NSSO (2005) survey, only 29% of farm households in India were members of cooperatives and only 19% availed of credit facilities, seeds and fertilizers. This shows the degree of exclusion of farmers with regard to credit. Thus flow and coverage of agricultural credit needs to be increased.

Credit Flow for Post-rainy season Sorghum in Maharashtra

Several agriculture advance schemes are available to the sorghum cultivator from different institutional and non-institutional credit agencies, and a few important ones are given below:

- A. **Short and Medium term loan:** Crop loan, produce marketing loan, Kisan credit card scheme (KCC), National agricultural insurance scheme (NAIS)
- B. **Long term loan:** Agricultural term loans.

Institutional Source

Cooperatives

The agriculture credit system in Maharashtra is no different from that in other parts of the country. Though there are many sources of credit available to farmers in Maharashtra, the general source of borrowing (for

short-term credit) for an annual crop such as post-rainy season sorghum, is through co-operatives, which falls under institutional credit. State level Co-operative banks disburse loans to Primary Agricultural Co-operative Credit Societies (PACS) through District Central Co-operative Banks (DCC). Hence, the entire flow of credit to farmers depends on PACS that are linked to DCC banks, which are federated to State Co-operatives banks. The State Co-operative Banks, in turn get funds for agricultural credit from the National Bank for Agricultural and Rural Development (NABARD).

A DCC bank, at the beginning of the agricultural year, decides on the scale of finance for agricultural and horticultural crops under its jurisdiction. The scale of finance is based on the cost of cultivation of individual crops provided by the Government of Maharashtra for the period under consideration. Accordingly, for post-rainy season sorghum, the scale of finance was fixed at Rs 10,000 per hectare for the agricultural year of 2010-2011. The loan is extended in the form of direct finance to farmers, with a repayment period not exceeding 18 months. The loan is given at an interest rate of 6% per annum. To avail a crop loan for sorghum cultivation, needy farmers may contact the nearest commercial bank or primary agricultural credit cooperative society along with necessary documents, ie, 8-A and 7/12 land records. The additional documentation required by different banks for lending in Maharashtra are provided in Table 1.

Kisan Credit Card (KCC)

State Bank groups such as SBH and SBI issue KCCs to provide timely and adequate credit to farmers to meet their short-term production credit needs (cultivation expenses), besides meeting contingency expenses and expenses related to ancillary activities through simplified procedures to facilitate loans, as and when required. All agriculture clients that have a good track record for the previous two years are eligible to apply for a Kisan Credit Card from commercial banks.

The credit limit of KCC is based on operational landholding, cropping pattern and ancillary, and

the contingency needs of the farmer for the full year. The minimum credit limit is Rs 3000 per hectare and withdrawal can be made by easy and convenient withdrawal slips. The credit is a revolving cash/credit limit, with any number of withdrawals and repayments, and the limit is valid for three years, subject to annual review. No collateral securities are required to avail of the loan facility. This scheme also covers personal insurance against death or permanent disability, for a maximum amount of Rs 50,000 and Rs 25,000 respectively.

Table 1. Bank requirements for lending in Maharashtra (2010).

Bank	Application Details	Document Required	Security	Loan amount with interest rate
SBM	<ul style="list-style-type: none"> 6 page application form Loan requirement & purpose Land holding Source of income Land details Resource endowment Asset & liabilities 	<ul style="list-style-type: none"> 7/12, 8-A, 6-D entry Search report Ration card & photo Bank account Project report Plan & estimate for development work 	<ul style="list-style-type: none"> Primary- Crop Collateral-owned land 	<ul style="list-style-type: none"> Crop loan- 7% interest upto 3 lakh Medium term-Base rate (9.5%)+0.75= 10.25% /annum Long term- base rate- 11.25% upto 1-2 lakh 13% - more than 2-10 lakh 12% - more than 10 lakh
SBI	<ul style="list-style-type: none"> 5-6 page application form 	<ul style="list-style-type: none"> 7/12, 8-A Search report Land holding details Photo & address proof Guarantor Project report, plan & estimate 	NA	<ul style="list-style-type: none"> Crop loan - 7% interest Medium term – 12% Long term – 13% and more
Union Bank of India	<ul style="list-style-type: none"> 3 page application form Bio data of farmer Branch recommendation Request letter 	<ul style="list-style-type: none"> 7/12, 8-A Hypothecation of goods, crop, livestock, poultry, fishery etc Deed of guarantor Two guarantors with asset & credit worthiness Photo with address proof No dues certificate Search report Bank account Quotations Project report, plan & estimate 	<ul style="list-style-type: none"> Primary Mortgage-Purpose of loan taken Secondary mortgage - Own land 	<ul style="list-style-type: none"> Priority sector loan Agriculture Non-agriculture Non-priority sector Direct agricultural loan Indirect agricultural loan
DCCB	<ul style="list-style-type: none"> 1 page application form 	<ul style="list-style-type: none"> 7/12, 8-A Land holding Guarantor if farmer does not have land Project report, plan & estimate Photo Quotation for machinery 	NA	<ul style="list-style-type: none"> Medium term – 12-13% Self help group – 4%

DCCB=District Central Cooperative Bank, SBM=State Bank of Mysore, SBI=State Bank of India



Training materials distributed to HOPE beneficiaries.

National Agriculture Insurance Scheme

This scheme is available to all farmers (loanee and non-loanee) irrespective of the size of their holding. This scheme is introduced mainly to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crops as a result of natural calamities, pests and diseases attacks. The secondary objective of the scheme is to encourage the farmers to adopt progressive farming practices, high value inputs and high technology in agriculture. It also aims to stabilize farm incomes, particularly in bad (disaster) years. General Insurance Corporation of India is the implementing agency. This scheme covers all food crops, oilseeds and annual commercial/ horticultural crops.

Non-Institutional Sources

Money lenders, traders/commission agents are the major sources of credit from the non-institutional category in the cultivation of post-rainy season sorghum. Farmers take credit from traders/commission agents and sell the produce to the same traders after harvesting the crop. Money lenders also provide credit to needy sorghum cultivators at an interest rate of 24-30% per annum, where the scale of loan is not fixed. Credit is extended to sorghum cultivators based on their relationship and mutual understanding with the money lenders. Repayment of the loan is made immediately after the harvest.

Other Loans

Credit is also available in other forms for sorghum cultivation and marketing. These include produce marketing loan, National Agricultural Insurance Scheme and credit against private warehouse receipt. In the case of a produce marketing loan, credit is extended in the form of direct finance to farmers with a repayment period not exceeding 18 months, whereas, in case of the National Agricultural Insurance Scheme, financial support is provided to farmers in the event of the failure of any of the notified crops as a result of natural calamities, pests and diseases attack, and is implemented by General Insurance Corporation of India (GIC). The sum insured in this case may extend to the value of threshold yield, and consequently production on the area insured. Credit is also extended to farmers against storage receipts of private warehouses and cold storage units for a maximum period of twelve months and maximum loan limit of 10 lakhs not exceeding 65 to 80% of the prevailing value of the agriculture produce stored.

Constraints in Agriculture Credit Flow

Some of the major drawbacks of institutional and non-institutional credit to agriculture is non-availability of credit when it is required, and insufficient credit to farmers. The main drawbacks are summarized below.

- Agriculture crops are season-bound and hence loans are to be disbursed before the start of the season. Because of the delay in disbursement of loans, a farmer diverts funds obtained from other crops to post-rainy season crops (sorghum, chickpea and wheat) and in-turn utilizes the money obtained from selling the produce of the post-rainy season crop during the kharif season. Because of the rotation cycle, in case of a failure of crops, a farmer is put under pressure for repayment of the loan and also the chances of a farmer becoming a defaulter is very high. Once the farmer becomes a defaulter, he will not be able to get the loan renewed.
- The loan amount available for post-rainy season crops such as sorghum, chickpea and wheat is itself very low compared to high value crops such as cotton, sugarcane and soybean. The scale of finance fixed by DCC bank for post-rainy season sorghum is Rs 10,000 per ha. This acts as a disincentive for farmers to apply for a loan for post-rainy season crops such as sorghum.
- The farmer has to declare the cropping pattern that will be followed under the 7/12 record to the revenue department for the latest agriculture year, during the month of May. Based on the 7/12 record, crop loans are provided by the co-operative banks. Once the farmer declares that he is going to put his land under sorghum cultivation, the loan granted becomes low. This discourages the farmer from officially stating that he will be cultivating sorghum. Hence, the farmer officially declares on records that he is going to cultivate high value crops (cotton, soybean), and the loan obtained, which is generally delayed (August – September), will be utilized for post-rainy season crops.
- Apart from this, from all the scheduled commercial banks operating in the region the borrower has to submit a 'no dues' certificate, which is a time consuming process.
- For non-institutional credit, the high rate of interest is the major drawback.

Recommendations to Overcome Limitations

- Currently farmers are issued a KCC that is valid for a period of three years. Since the procedure for issuing a KCC is lengthy, farmers could be issued a KCC that is valid for a longer period.
- Increase in the scale of finance for post-rainy season sorghum, as the current credit provided for post-rainy

season sorghum is too low, this discourages farmers from applying for post-rainy season crop loans

- A special counter could be opened during the season in all scheduled commercial banks with special staff to process loan applications quickly, this would help in timely and adequate disbursement.
- Today, a lot of intra-bank services are taking place with a common understanding related to credit and debit activities. These types of services could be extended to agricultural activities such as getting 'no dues' information, to reduce the farmers' burden.
- Promotion of group loan approach: An example of SHG-Bank linkage model through the farmer groups/ Self Help Groups (SHGs).

Intended Process to be Adopted under HOPE Project to Access Credit

- Organize all the HOPE target families into farmer groups/SHGs.
- Provide training to farmer groups and SHGs about the SHG concept, its importance and its operational functionalities.
- Facilitate meetings between SHGs and various banks and its officials, to expose them to the availability and accessibility to various types of agriculture credit.
- Introduce appropriate books of accounts and orientation of farmer groups/SHGs on book keeping.



Informal discussions held with HOPE beneficiaries for best business practices.



HOPE beneficiaries informed on availability of credit from different sources.

- Motivate towards weekly meetings, weekly savings and enabling them towards internal lending.
- Orient SHGs towards proper financial management and the extension of timely credit support to all its members, to invest in productive activities, with a special reference to agriculture and income generation programs.
- Strongly encourage the banking sector to increase availability of credit towards the agricultural activities of farmer groups/SHGs on a priority basis.
- Farmer groups and SHGs – formalize the SHG/Farmer group – Continuation of the Bank linkage credit model as a process to fulfill the credit requirements of the HOPE target families and to enhance their livelihood options.

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About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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