

Role of financial agencies in integrating small farmers into a sustainable value chain: a synthesis-based on successful value chain financing efforts

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With changing agricultural business environment, the conventional direct marketing method is becoming a less feasible option for small and marginal farmers due to emergence of supermarkets, increasing consumers' preference for value-added food products, high production and marketing cost associated with small scale of operations and increasing consumers' emphasis on quality, safety and appearance of the product. Hence farmers must enter into a value chain in order to adapt to the changing business environment. Capital investment on production and processing aspects is a prerequisite in order to achieve and authenticate the quality, safety and attractiveness standards. Small and marginal farmers are least preferred financing clientele due to lack of strong collateral security and low risk-bearing ability. But, they form the major chunk of the population dependent on agriculture, contributing more than half of total agricultural production. Hence we need alternative approaches that can either reduce the financial risks associated with production and marketing process at the farmers' level, or approaches which can shift the farmers' financial risk entirely onto the other stakeholders in the value chain. Approaches like contract-based financing and cascade financing increase the possibility of success in business and reduce farmers' business failure risk. Joint liability group financing increases the financial risk-bearing ability of the farmers with reduction of defaulter risk and increase in creditworthiness of the individual farmer. Interdependence financing increases the small farmers' access to credit services. Indirect supplier financing shifts the farmers' financial risk on the other stakeholders in the value chain.

Keywords: Agricultural value chain, business environment, financial agencies, small and marginal farmers.

SMALL and marginal farmers (see note 1) are unable to reap the benefits of the globalized market due to lack of access to credit, inability to bear investment risk and lack of ability to raise funds. Small farmers are also lagging behind in adapting to the ever-changing market scenario – increasing consumer preferences for processed and value-added food products, reducing scope of direct marketing, increasing preference for centralized procurement and emergence of supermarket chain concept. Under such context, it is necessary to understand the importance of small and marginal farmers in the agricultural value chain, changing market dynamics and its business implications for these farmers, role of financing agencies

in integrating these farmers into the value chain, and various approaches for financing small and marginal farmers in the agricultural value chain.

Small and marginal farmers in India and their importance in the agricultural value chain

According to the Agricultural Census, within one decade, the average size of landholding in India has declined from 1.33 ha in 2000–01 to 1.15 ha by the end of 2010–11. The average size of landholdings of small and marginal farmers is far smaller (0.63 ha) compared to the overall average size of operational landholdings in the country. In India, out of 138.35 million agricultural landholdings, approximately 117.6 million are small and marginal. Even though the individual farming units are small, these small and marginal holdings together form a large chunk (approximately 44.6%) of the total agriculturally

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operated land area¹. With such a huge area under control, small and marginal farming units have significant impact on agricultural production, agro-manufacturing and service sector. The small and marginal farming units contribute more than half (51.2%) of the total agricultural output of the country. They together contribute around 52% of the total foodgrains and 69% of the milk produced in India². Small and marginal farmers together make a large contribution to the production of high-value crops, around 70% of the total vegetable production, 55% of the total fruits production against their share of approximately 44% of total landholding³. Hence such farmers cannot be neglected and sidelined by the stakeholders engaged in agricultural value chain.

Opportunity for small and marginal farmers

Total quantity of food processed in India is relatively small as compared to the demand for processed food in the Indian markets. India is one of the biggest emerging markets, with a population of over 1.3 billion of which around 300 million are middle-class citizens⁴. An average Indian spends about half of the household expenditure on food items⁵. Hence integration of small farmers into the agricultural value chain will serve the dual purpose of providing unexplored markets for these farmers and meeting the increasing demand for value-added quality food. Rapid urbanization, increased literacy and rising per capita income have all caused rapid growth and changes in the demand pattern leading to new opportunities for exploiting the large latent market.

Changing market dynamics and its business implications for small and marginal farmers

Like many other developing and underdeveloped countries, majority of the Indian population is occupationally dependent on agriculture. More than half (67.1%) of these farming families have small landholdings and around one-sixth (17.9%) of them have marginal landholdings. These two weaker sections of the farming community together constitute 85% of the agricultural landholdings⁶. Similarly, like most other developing economies, Indian agriculture is characterized by small and fragmented landholdings, lack of access to resources and credit, and poor repayment capacity with low risk-bearing ability of the farmers. These two major but weaker sections of the farming community have survived by following subsistence farming and direct marketing of their produce without entering into any systematic, organized and regulated agricultural value chain. But with globalization and liberalization, foreign and indigenous supermarket chains have shown their strong presence in food and agricultural commodity markets. Emergence of these supermarket chains, coupled with the changing food

preferences of the middle-class families are making the concept of direct marketing less attractive and least profitable. Below are listed a few of the major changes in the agriculture commodity markets which have far-reaching business implications for the farmers in general and small and marginal farmers in particular.

(a) Competition: Prior to liberalization of the markets, the domestic retail markets were ruled by the small, isolated retailers who used to purchase commodities in small quantities from decentralized procurement systems. But liberalization of the markets brought the supermarket chains which overtook the market share of retail sellers and direct marketing⁷. Due to large volumes of buying, these supermarket chain are able to offer products at a lower price with uniform standardized process and quality. Therefore, farmers and households who practised direct marketing started to face stiff competition from these stores. As a result, the economic feasibility of this direct channel started to shrink.

(b) Shift in agro-product procurement systems: As a result of emergence of supermarkets and large store chains, the conventional farm gate procurement system was replaced by centralized and cross-border procurement from preferred and specialized wholesalers⁸. This led to sidelining of the decentralized procurement and direct marketing approach. Farmers who were functioning earlier in direct marketing system were made to sell their produce through a centralized procurement system. This system helps farmers sell their produce directly at the farm gate; however, some conditions like quality and quantity standards are imposed on them. The small farmers lack capital to invest on inputs, processes and equipment and hence it is hard for them to meet quality, quantity and timeline standards.

(c) Migration and shrinking scope of direct marketing: Generally, small and marginal farmers sell their unprocessed agricultural produce through direct marketing in the local rural markets. Due to rapid urbanization and increasing disposable income, the food preferences of the middle class families are also changing. As people migrate from rural to urban areas, they begin to prefer processed and value-added food items which are available only in retail outlets. They buy unprocessed agricultural products less frequently directly from the producers. Therefore, as the urbanization process expands, preference and demand for unprocessed food products decrease and direct marketing channels become a secondary choice, which may decrease substantially in the future.

(d) Preference for larger suppliers: With globalization and liberalization of the economy, there is a sharp increase in terms of number of agri-produce retail chains and agro-processors. The view was that increased number of buyers will ensure demand and better price for the produce of small farmers, but the consequences are different. In general, retail chains (modern and particularly foreign-owned) favour buying in larger volumes from a limited

number of suppliers. Thus, corporate farm business mainly profits from this development. Reports have shown that larger-scale food processors also favour large suppliers⁹. The interests of small and marginal farmers are thus not considered.

(e) Changing food preferences: Due to increasing income, diet diversification, impact of globalization, increasing urbanization and changing lifestyle of people, the food preferences are also changing. During the most recent decade, globalization has played an important role in the transformation of food consumption patterns in Indian households. There has been a significant increase in the import of fresh fruits such as apple, dry fruits such as almonds and processed food products following removal of trade restrictions¹⁰. India's emerging middle class is increasingly demanding higher-value fresh foods, ready-to-eat, ready-to-cook and processed foods, while expecting these products to be compliant with safety and quality standards. Small and marginal farmers fail to process and add value to their produce, which further decreases the saleability of their produce directly to the consumers.

(f) Emphasis on quality, safety and appearance: Small farmers lack time and resources necessary for value addition, safety certification and making their produce attractive. Nowadays consumers are becoming increasingly aware about quality and safety parameters, but small farmers are unable to ensure authentication of quality and safety standards for their produce due to lack of understanding about consumer preferences, quality certification, safety standards and lack of capital required for following safety standards and product certification. This further reduces the saleability of produce of the small farmers.

These emerging trends in agricultural commodity procurement, processing and distribution system coupled with changing food preferences imply that, for a small farmer to make his agribusiness venture profitable and sustainable, he must find some alternative system of production–processing–marketing, wherein his financial and technological limitations are considered.

Concept of agricultural value chain and importance of integrating small farmers into it

Numerous authors have defined the value chain in different ways. The definition that seems to be most convincing to us is as follows: a value chain refers to actors (private and public, including service providers) and the sequence of value-adding activities involved in bringing a product from production to the end-consumer. In agriculture they can be thought of as a 'farm-to-fork' model as a set of inputs, processes and flows¹¹.

An agricultural value chain can be characterized by sequentially arranged multiple stakeholders engaged in the activity of value addition to the agricultural produce,

starting from production of agricultural inputs to the delivery of the final product to the consumer. The purview of agriculture and agribusiness value chain is far beyond mere production and marketing. It involves input and credit mechanisms for agriculture production, grading, processing, packaging, transportation, storage, retailing/wholesaling/export, value-addition, marketing, etc. High productivity alone cannot ensure higher income for the farmers. There should be provision of access to credit and inputs, value-added options, low cost of cultivation, cost-effective grading, pack houses, packing technology, warehousing, transportation along with increment of farmers' share in consumers' price.

Primary producers realize just about 30–35% value of their produce¹². The involvement of many middlemen in the agriculture value chain makes it a highly inefficient system. Farmers' share in consumers' price spills away among the middlemen. Farmers are aware about this fact, but the lack of capital investment – required for agricultural operations, grading, storage, transportation and processing – compels them to sell their produce to these middlemen. The middlemen either provide necessary capital or supply necessary inputs which farmers are unable to mobilize. Further farmers have very low access to market information and will be in dire need for operational capital for the next cropping season, which is another reason why they are trapped into the marketing system of the middlemen.

The 'farm to fork' integration of the supply chain promises to reduce wastage, preserve freshness, reduce consumer prices, and improve farmer price, as well as income¹³. Efficient value chains eliminate intermediaries from the current value chains and strengthen value-added activities, e.g. technology, quality agricultural inputs, farm gate procurement, infrastructure (cold chain), food processing and value addition, and exports. Value chain integration increases the ease of small farmers' access to market information and advice, agro inputs, technical assistance, operational and developmental credit facilities, and credit for non-agricultural needs. Value chain integration also has the potential of hassle-free funding, and reducing the cost of financial transactions, lending and those associated with logistic services.

Problems and challenges faced by small farmers in the context of value chain integration

Most of the small farmers are non-commercial subsistence agriculture practitioners cultivating location-specific, low-yield crop types, but the value chain demands attractive, saleable and high-end produce.

Small and fragmented landholdings are the characteristic features of small and marginal farmers. Such landholdings make it difficult to reap the benefits of scale of operation. Also, the value addition sector does not prefer

small-scale suppliers spread over a large geographical area.

Lack of access to transportation, storage and grading facilities compels farmers to stay away from the mainstream value chain. Instead their produce is procured by some proxy unit of the value chain and results in pilferage of part of farmers' share in consumers' price.

Poor access to market information and lack of connectivity to organized markets result in confinement of farmers' business perspectives, and limit business and marketing opportunities which would have been otherwise available.

Lack of access to credit and technical and consulting assistance facilities results in poor quality and quantity of produce and increased cost of cultivation. No value-addition industry would like to buy an inferior produce at a relatively higher price. Hence the produce of small and marginal farmers is secluded from the mainstream value chain.

Relatively high transaction costs are a common phenomenon among small and marginal farmers due to the small scale of operation.

Poor business skills due to lack of education opportunities and low agribusiness exposure result in poor market and business networking and wrong investment, production and marketing decisions, which restrict these farmers from entering into the agriculture value chain.

Concept of agricultural value chain financing and its role

Limited access to institutional finance is a major constraint faced by small and marginal farmers; it certainly affects their ability to take advantage of market-oriented production opportunities. The use of agricultural value chains as a mechanism for providing financial services should be adopted for the long-term inclusive growth of the sector. Banks and financial institutions should focus on financing the value chain and enhancing the efficiency of the system by investing in knowledge, infrastructure and stakeholder capacity building. Incubating innovations and their successful replication hold the key for future growth in the sector, especially the use of information technology coupled with innovative financial services¹⁴.

Value chain finance

Value chain finance (VCF) can be defined as financial services and products flowing to and/or through value chain participants to address and alleviate constraints to growth¹⁵. So, agricultural value-chain financing can be defined as set of financial products, services and processes aimed at meeting the financial needs of one or more links of the agricultural value chain.

VCF can also be defined as flow of financing within a sub-sector, among various value-chain stakeholders for the specific purpose of getting products to the market. This is different from the mere provision of conventional financing, where one of the chain stakeholders gains access to financial services, independent of the other stakeholders.

Small farmers have relatively greater need for finance, but are in high-risk proposition; hence financing agencies show least interest in lending credit to them. Current financing mechanisms are fragmented and most often inadequate for comprehensive development of the value chains.

Financing through the supply chain model reduces investment risk associated with small and marginal farmers, and holds significant potential for the sectoral growth. It enables the right choice of crop and technology in line with the market demand. Market-driven supply chains have proven to be the most efficient¹⁴.

Integrating small and marginal farmers into the value chain through value chain financing helps in the following:

- Shifting financial risk from the farmer to some other link in the value-chain system.
- Enhancing the ease of access of small and marginal farmers to institutional credit.
- Small and marginal farmers can get credit for non-agricultural needs.
- Reduces cost of lending and other financial transactions.
- Hassle free and quick disbursement of credit.
- Value chain can create new collateral securities (warehouse and trade receivables)^{16,17}.

Financial factors hindering farmers' participation in the value chain

Relatively small marketable surplus: Small farmers generally engage in subsistence farming and majority of them cultivate foodgrains like rice, wheat and pulses. Once the produce is harvested, the farmer reserves the amount sufficient for his family consumption. Since he has small holdings, the quantum of production is also small and hence the amount of produce left over – after meeting the family consumption requirements – is also less. Renting of vehicle and equipment required for grading, processing, packaging and transportation of the little marketable surplus leads to increased overhead charges and the farmer loses the competition in the scale of operation. Hence the small farmer is reluctant to indulge in active market participation. Market participation is positively associated with the size of marketable surplus¹⁸. Smaller the size of marketable surplus, lesser is the extent of market participation.

Uncertainty in production and inability towards commitment to supply: Value chain starts from a primary producer and ends with an elementary unit of the consumer, but in between it passes through the macro units like centralized procurements, processing and marketing systems. These intermediately units plan and invest according to size of the market, expected input requirements and economic feasibility of the scale of production. Any shortage of input from the supply side (farmers' side) will result in wastage of resources and capital invested on planning and implementation of the process leading to huge economic and market share loss. Hence these macro units in the value chain prefer assured and committed suppliers, even if they demand high price. Small farmers have very small marketable surplus and cannot assure supply of the produce in the event of drought, flood, etc. But procurement agencies have diverse sources of supply and they ensure supply in spite of the occurrence of localized natural phenomenon like drought, flood, disease infestation, etc.

Inadequacy of physical and market linkage infrastructure: Better access to the market infrastructure like transportation, storage and market information facilities will promote farmers to use these facilities. Once the farmer experiences the benefit of these facilities, he tends to expand the use of these facilities and increase the extent of his participation in the value chain. Reports also suggest that commercial households are more likely to be located in zones with better market access, better physical and institutional infrastructure, and higher potential agro-ecological characteristics¹⁹. Small farmers have little access to facilities like market information, produce storage and transportation facilities due to lack of investment required for communication and transportation. India has very little modernized storage infrastructure under government possession and cold chain infrastructure is still in its infancy. Majority of the modernized storage facilities are run by private-sector players, which increases the cost involved in using them. Small and marginal farmers are in dire need of operational capital at the end of the cropping season and hence cannot afford to invest on storage facilities; instead they prefer to sell their produce immediately.

Lack of access to support services: Credit, knowledge and technical assistance are required for meeting quality and safety standards of the crops.

Small scale of operation and high transaction costs: Transaction costs favour larger farms in supply-chain establishments. There is an important fixed transaction-cost component in the exchanges between farms and companies, such as administrative costs, costs for time spent communicating, negotiating and monitoring contracts, costs related to the storage and transportation of goods, etc. In case of small and marginal farmers, procur-

able produce is very little and the above-mentioned transaction costs are comparably higher. This results in restricting the participation of small farmers in the value chain.

Problems associated with credit facilities for small and marginal farmers in the value chain

Constraints of farmers in accessing adequate finance:

- Lack of access to institutional credit.
- Lengthy paperwork, beyond the understanding of farmers.
- Absence of collateral: Small farmers tend to seek collateral-free landings. Banking agencies tend to reduce the quantum and number of such collateral-free loans in order to avoid the risk of non-recovery of such loans. As a consequence, access of small farmers to the institutional landings is restricted.
- Heavy collateral conditions/high financing costs.
- Low financial risk-bearing ability and lack of alternative sources of income.
- Uncertainty of success due to dependence on nature, which is beyond human control.

Constraints of banking agencies in financing small and marginal farmers:

- High operational costs for transacting small loan amounts associated with small and marginal farmers.
- Small farmers seek collateral-free lending and such lending involves high risk.
- Small farmers have less risk-bearing ability and hence high default rates restrict the banking agency from investing on financial resources of these small and marginal farmers.
- Uncontrollable and systemic risks are common in case of lending for small and marginal farmers.
- Low financial risk-bearing ability of the clients is another reason why banks hesitate to finance small farmers.

Approaches for integrating small and marginal farmers through value chain financing

Small farmers are those in dire need of capital investment. The decision of banks to lend or not to lend credit depends on the client's repayment and risk-bearing capacity, extent of risk in the venture and profit in lending. Typically, a small farmer has low risk-bearing and loan repayment capacity. His agribusiness venture is highly risk-prone and nature-dependent. Additionally, small farmers seek relatively smaller credit, that too at subsidized interest rates.

Hence small farmers do not present the ideal conditions for financing agencies to lend them loans. The need for credit of small farmers is greater, risk in their business is

higher and profit to the lending agencies is little. This makes it difficult for the financing agencies to fund the small and marginal farmers directly. But financing agencies can engage value-chain stakeholders in order to credit the small and marginal farmers indirectly. Below, we have discussed the various approaches for financing of small and marginal farmers indirectly through agricultural value-chain stakeholders. Note that these financing approaches are neither exhaustive nor exclusive categories, and may have some overlapping aspects in their mode of implementation.

Indirect supplier financing

In this approach, the financial institution knows that access to raw materials is a critical factor for the success of the value-chain business. Nevertheless, the financing agency is not in position of taking the risk of financing the primary producer because of the high risk involved in agriculture and low repayment capacity.

However, the banking agency knows that agro-processor and marketing agencies are more creditworthy, have better loan repayment capacity and their agribusiness ventures are less risk-prone. Taking this into account, the banking agency can think of financing to value-chain players (agro-processor, product marketing agency, etc.) who will take the risk of lending loans to the small and marginal producers. Here the loan will be enrouted to the small farmers via some other stakeholder of the value chain, who is willing to bear the risk of loan repayment. In other words, here the banking agency can finance a client who needs to guarantee his supply of raw materials to keep his own business running.

DrumNet's value chain financing through farmer field schools – a case of indirect supplier financing

The DrumNet Supply Chain Management platform is working successfully in sunflower oilseed processing sector on a pilot level in Western Kenya. It was operationalized through a four-way partnership between Farmer Field Schools (small farmer groups), AGMark (agro-input supplier; sunflower oil manufacturer) and Equity Bank (micro-financing agency). BIDCO guaranteed market and price for the produce of small farmers. Since the price and market both are guaranteed, the Equity/DrumNet platforms ensured credit facilities to these farmers. In addition, they received a line of credit through an Equity/DrumNet platform agreement to purchase the required inputs from AGMark without providing any collateral security. BIDCO, the buyer, enters into contract to buy any quantity of sunflower with repayment of the credit tied to payments due to the farmers for sunflower delivered to BIDCO²⁰.

Interdependence financing

This particular value chain has fully interdependent links. Business success of one link is interdependent with that of the other link. Here the banking agency is ready to finance small farmers because it has financed a subsequent link in the value chain. The banking agency knows that for the success of the subsequent value chain link where it has already advanced the loans, it is necessary that primary producers (suppliers) also need to succeed in their business venture. Suppose a banking agency has financed a mango processor, then it may be also willing to finance the primary producers of mango, in spite of knowing that the business venture of the primary producer is risk-prone. There are certain criteria that need to be kept in mind for financing of such small farmers. Those small farmers can be selected who fulfil the criteria given below:

- Primary producer and the value-chain stakeholder (whom the bank has already financed) are interlinked.
- These two links of the chain enjoy a long-term business relationship.
- Already financed stakeholder is a major market player.
- The selected small farmers together supply the majority of business input for the already financed stakeholder.
- The value chain in which he is financing is difficult to be replicated by someone other than the client.

Interdependence financing – case of Afife Rice Irrigation Project

In an agriculture value-chain financing effort under Afife Rice Irrigation Project, the Ghana Irrigation Development Authority (GIDA) linked financial institution (ADB), agro-input supplier, paddy cultivators (producers' cooperatives) and paddy processors. About 800 paddy growers were organized into an umbrella consisting of five different cooperatives. Agrochemical Company ensured prompt and bulk supply of inputs with post-harvest repayment assurance from Agricultural Development Bank (ADB). ADB also financed the paddy processing company. Farmers received loans from ADB, and delivered the equivalent of the loan in paddy to the same company whom ADB had financed. Consequent to the harvesting and repayment of loans in the form of produce at a pre-decided price, farmers have the option of selling any surplus paddy to the company or finding other outlets²¹.

Cascade financing

As the name suggests, the banking agency targets the successive links in a value chain. Here the farmers are

financed not in isolation, but as a part of the value chain. The banking agency finances primary producers, processors, distributors and marketing agencies; it may even finance the buyers of the end-product. Sometimes the banking agency locks up financing of the entire value chain starting from the agricultural input supplier to the final product buyer. Cascade approach of financing is different from interdependence financing in that the former approach finances the entire value chain, whereas the latter one finances farmers because it has financed the only link in the value chain subsequent to the primary producer.

Cascade financing is highly suitable when the banking agency has intimate knowledge of the value chain and the farmers in the value chain receive business revenues in their personal accounts of the same banking agency, so that the banking agency can later directly debit their accounts for loan payments.

Case of floriculture financing in Holland: Flowers as a high-value product require costly investments by farmers. Small and marginal farmers are highly suitable for greenhouse cultivation of flowers, but they lack the required capital for erecting a sophisticated and costly greenhouse structure. Banking agencies are reluctant to bet on heavy financing for the small farmers because of the associated high risk. In Holland, instead of rejecting heavy financial services for small farmers, Rabobank conducted an in-depth value-chain analysis on the flower production and marketing industry. After gaining in-depth knowledge Rabobank financed farmer needs for working capital, equipment and technology, and financed the equipment distributor. It financed the farmers because of the knowledge about their marketing system. Essentially, farmers send their products to an auction market in Holland. Hence Rabobank also financed the auction market and many of the buyers in the auction market. It locked up financing of the whole value chain. Farmers receive their sales revenue in a Rabobank account and the bank directly debits their accounts for loan payments.

Joint liability group financing

To augment flow of credit to small and marginal farmers, and to minimize risks in the loan portfolio for the banks, the group approach for lending is highly suitable. Under this broad lending approach, there are two subcategories – individual financing and group financing.

Under Individual approach, each member of the joint liability group (JLG) should be provided an individual Kisan Credit Card (KCC). The financing branch could assess the credit requirement, based on the crop to be cultivated, available cultivable land/activity to be undertaken and credit absorption capacity of the individual. All members would jointly execute a loan document, making

each one jointly and severally liable for repayment of all loans taken by all individuals belonging to the group. The mutual agreement needs to ensure consensus among all members about the amount of individual debt liability that will be created, including liability created out of the individual KCC holder. Any member opting out of the group or joining it will necessitate a new loan agreement, to be kept on record in the branch.

Under group approach, the JLG functions operationally as one borrowing unit. The group would be eligible for accessing one loan, which could be combined credit requirement of all its members. The credit assessment of the group could be based on the available cultivable area of each member of the JLG/activity to be undertaken. All members would jointly execute the document and own the debt liability jointly and severally. The mutual agreement needs to ensure consensus among all members about the amount of individual debt liability that will be created. Any change in composition of the group will lead to a new document being registered by the branch.

Case of Pipla JLG in Bihar: Pipla JLG is a joint liability group with four tenant farmers from Peepla located in the village of Modho Haat in Kochadhaman block, Kishanganj district, Bihar. The group has been promoted by Sikshit Swaniyojan Utthan Avam Kalyan Society, a JLG promoting institution supported by NABARD. JLG is financed by the Alta Kamalpur branch of the Bank of Baroda. An amount of Rs 2 lakh was sanctioned to the JLG towards credit in the form of KCC in August 2013 for the *kharif* crop. The amount was equally distributed among the members of the group. They put the money towards scaling-up/expansion of their tenant farming. The loan was repaid in the middle of February 2014, upon completion of the harvesting season. The group took a second loan of Rs 1.90 lakh in February 2014 for the *rabi* crop. Earlier, the JLG group members were dependent on either moneylenders or microfinance institutions for loans. They were provided with the benefits of a KCC account, coverage under the crop insurance scheme and an interest rate of 3% per annum on loan. The JLG members are now able to save significant amount of money, unlike earlier when they took loans from moneylenders and payed high rates of interest. JLG financing has helped these tenant farmers acquire more land for cropping in a better way.

Contract-based financing

This is an approach for financing small and marginal farmers when the banking agency is willing to reduce the risk of defaulters. Small and marginal farmers have low risk-bearing ability and lack buffer cash. Hence in the case of market price downfall, they will not be able to pay back their debt. Under these situations, the financing

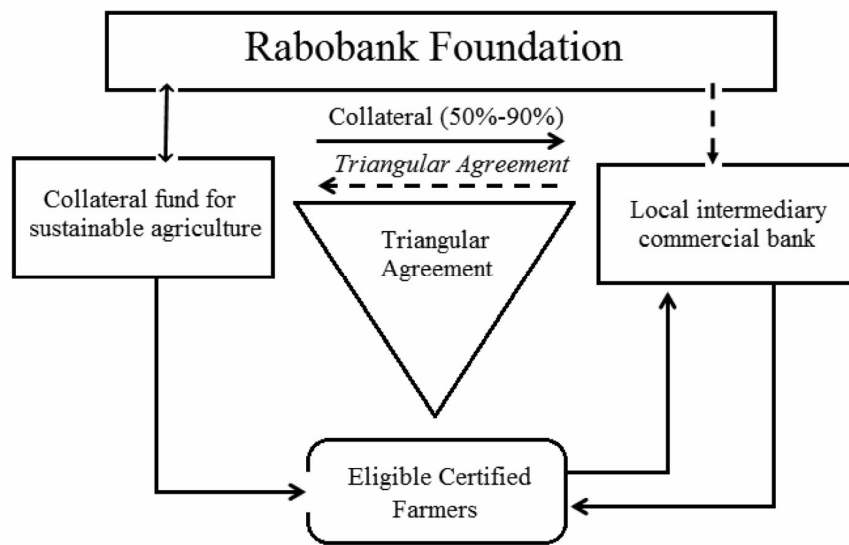


Figure 1. Rabobank's contract-based financing approach (Source: Shwedel).

agency can consider those small and marginal farmers in the value chain who enter into buyback agreements/contracts with some reliable buyer. Existence of buyback agreement ensures income for farmers, which can be used as a means of loan repayment by linking the payments of contracts with the personal bank accounts of the borrower farmers existing in the same bank. This model works more successfully when lending is done to the farmers' groups rather than to individual farmers.

Contract-based financing of coffee growers association in Holland: This case brings together the Rabobank Foundation (a larger financing agency), a local intermediary commercial bank and the coffee growers association. In Holland, many coffee growers are non-organized smallholders vulnerable to market risk and dependent on a long line of intermediaries²². So extending credit to such farmers without any collateral security is a matter of risk for commercial banks. This risk can be mitigated if collateral security can be substituted by the existence of assured coffee buyers. Lending loan to the secured farmer – whose produce will be sold surely at predefined price – is a profitable transaction for the bank. In this case, the local commercial bank backed by Rabobank Foundation extended loan to those farmers who had entered into buyback agreement with reliable buyers in the market (Figure 1). The credits were extended to these farmers only after they were subjected to credit assessment and certified.

Conclusion

The business of small and marginal farmers is characterized by uncertainty in success, fluctuating produce price

and lack of buffer capital for investment in future, which make them the least preferred group of clients in value-chain financing. But there are means to reduce or shift the financial risk of farmers onto other stakeholders (input suppliers, agro-processors and marketing agencies, etc.) in the value chain. Approaches like contract-based financing and cascade financing increase the possibility of business success and reduce business failure risk of farmers. This increases the possibility of repayment of loans and reduces the defaulter number associated with small farmers group. JLG financing increases the risk-bearing ability of the farmers; the risk of defaulters is reduced and creditworthiness of the individual small farmer increases. Interdependence financing increases the access of small farmers to credit services. Indirect supplier financing shifts the financial risk of farmers to other stakeholders in the value chain. Considering the suitability of the financial tools in the existing value chain, one should choose and modify the above-mentioned approaches.

Note

1. The Department of Agriculture and Co-operation, Government of India classifies those farmers as 'small farmers' who have operational landholding between 1.0–2.0 ha; and those as 'marginal farmers', who have less than 1 ha of operational landholding.

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