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Towards a More Sustainable Financing of Small Farmers and Fisherfolk's Agricultural Production

Final Report

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Abstract

Cognizant of the value and contribution as well of the challenges in the agricultural finance, the government has intensified its lending programs that are designed to help the agricultural sector, specifically, the smallholders. Thus, affordable and easy access retail lending has intensified in recent years. Despite these efforts, significant problems remain. These include the lack of markets and low prices, which have significant implications on the overall repayment capacity and credit rating of the small farmer and fisherfolk (SFF). Indeed, these lending programs are unlikely to become successful if financing and production are not viewed in the bigger context of a value chain financing. Thus, this paper looks into the SFF's financing ecosystem and provides recommendations on how the existing value chain financing can become more inclusive and sustainable.

Keywords: Agricultural value chain financing, small farmer and fisherfolk, Philippines

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List of Acronyms

ACEF	Agricultural Competitiveness Enhancement Fund
ACPC	Agriculture Credit Policy Council
AFFORD-ARB	Accessible Funds for Delivery to Agrarian Reform Beneficiaries
AGFP	Agricultural Guarantee Fund Pool
AHSTI	Asian Hybrid Seed Technologies Inc.
ARB	Agrarian Reform Beneficiary
ASKI	Alalay Sa Kaunlaran, Incorporated
ATM	Automated Teller Machine
AVCF	Agricultural Value Chain Financing
BDO	Banco De Oro
BSP	Bangko Sentral ng Pilipinas
CARES	Calamity Rehabilitation Support
CIC	Credit Information Corporation
CLOA	Certificate of Land Ownership Award
CRB	Cooperative Rural Bank
CSO	Civil Society Organization
DA	Department of Agriculture
DA-PRDP	Department of Agriculture-Philippine Rural Development Project
DAR	Department of Agrarian Reform
DBP	Development Bank of the Philippines
DTI	Department of Trade and Industry
EMBRACE	Empowering Poor Women and Men in Building Resilient and Adaptive Communities in Mindanao
ERCA-RCEF	Expanded Rice Credit Assistance-Rice Competitiveness Enhancement Fund
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GDP	Gross Domestic Product
ICT	Information and Communications Technology
ISP	Internet Service Provider
KII	Key Informant Interview
LBP	Land Bank of the Philippines
LGU	Local Government Unit
MFI	Microfinance Institution

MSME	Micro, Small, and Medium Enterprises
NBHC	National Bulk Handling Corporation
NFA	National Food Authority
NIA	National Irrigation Administration
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PCIC	Philippine Crop Insurance Corporation
PLEA	Production Loan Easy Access
PSA	Philippine Statistics Authority
RCBC	Rizal Commercial Banking Corporation
RCEF	Rice Competitiveness Enhancement Fund
RSBSA	Registry System on Basic Sectors in Agriculture
SDG	Sustainable Development Goal
SEC	Securities and Exchange Commission
SFF	Small Farmers and Fisherfolk
SME	Small and Medium Enterprise
SURE	Survival and Recovery Access
UCPB	United Coconut Planter’s Bank
WRS	Warehouse Receipt System

Towards a more sustainable financing of small farmers and fisherfolk's agricultural production

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1. Introduction

Without a doubt, agricultural credit is an important element in agricultural development. It helps in smoothing consumption given covariate shocks and the oftentimes mismatch between consumption and production. It helps to improve the productivity of the sector by facilitating the adoption of modern technologies and the purchase of farm inputs. It also improves the efficiency of the smallholders. All over the world, however, agricultural finance has been considered risky due to the asymmetry of information available to both lenders and farmers/fisherfolk.

In the early 1980s, credit rationing arising from imperfect information and high transaction cost have already been a challenge in the Philippines. This challenge is more pronounced for the SFF who resort to informal channels, such as landlords, traders, input suppliers, big farmers, warehouse owners, and spouses of overseas contract workers (Llanto 1989). Other than the flexibility in terms of repayment schedules and loan amortization, informal credit markets in the Philippines are also attractive due to collateral substitutes. Llanto (1989) has identified different types of collateral substitutes in the Philippines, namely, third party guarantee, tied contracts, threat of loss of future borrowing opportunities, and mortgaging of tenancy or cultivation rights. Access to credit of the SFF in the Philippines is affected by several factors including the interest rate (De Guia-Abiad 1991; Briones 2007; Cuevas 2015) and transaction costs (De Guia-Abiad 1991; Cuevas 2015). Institutions in securing property rights are also weak, which partly results from inefficiencies in the land registration systems (Llanto and Ballesteros 2002) and from the absence of mechanisms to resolve land disputes (Llanto 2007).

In 2018, around 36% of the country's total employment is in the agricultural sector. In the same year, PSA data indicate that farmers and fisherfolk have the highest poverty incidence among the basic sectors in the Philippines at 31.6% and 26.2%, respectively. Thus, the agricultural sector is critical in the attainment of SDG 2 (zero poverty) and its targets of doubling the agricultural productivity and incomes of small-scale producers (target 2.3) and ensuring sustainable production systems (target 2.4) by 2030. Despite various well-meaning interventions such as those found in the Agriculture and Fisheries Modernization Act, the sector is still hounded by issues of low productivity. The contribution of the sector to GDP has been declining (15% in 2009 and 9% in 2019). This has been partly attributed to the inadequate credit and insurance in the agricultural sector that can adversely affect small farmers and fisherfolk (SFF).

Based on the data in the PSA Agricultural Indicators System Agricultural Credit Report 2019-10, the average annual growth of agricultural production loans[1] provided by banks from 2014-2016 is computed at 11%. The total agricultural production loans are assumed to grow at this rate and projections are made from 2017 to 2024 (Table 1, column 4). The SFF credit supply is assumed to be 16.56% of the total agricultural production loans. The rate is based on the proportion of the total agricultural production loans extended to the SFF by the LBP lending centers that participated in the key informant

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[1] Data on agricultural production loans (instead of the broader agricultural loans) are used since financial institutions typically require a farm plan, which is the basis of the amount and the timing of the release of loans.

interviews (KII) and focus group discussions (FGD) conducted by the PIDS team from July 29, 2020 to September 23, 2020 (Table 1, column 5). In addition, Ducanes (2020) has projected the SFF demand for agricultural loans from 2017-2024 (Table 1, columns 2 and 3). Assuming that the SFF demand for agricultural production loans is 65% of the projected demand, the gap between the supply and demand is projected to narrow. By 2024, credit supply is projected to be more than enough to

Table 1: Projected gap in the SFF credit supply and demand, in million PhP

	A: Projected SFF demand for agricultural production loans*		Agricultural production loans by banks		B-A: Gap	
	Low	High	Total**	B: SFF***	Low	High
2017	100775	215872	506140	69358	-31417	-146513
2018	106863	228917	631831	86582	-20281	-142335
2019	111092	237972	788736	108083	-3009	-129888
2020	117203	251059	984605	134924	17721	-116136
2021	123649	264868	1229115	168430	44781	-96438
2022	130450	279436	1534346	210257	79807	-69179
2023	137624	294805	1915375	262470	124846	-32335
2024	145194	311019	2391027	327650	182457	16631

*Source: Assumed to be 65% of the projected SFF demand for agricultural loans found in Ducanes (2020). Based on the 2015 ARB Special Survey, the agricultural production loans were between 60-62%.
**Source: Authors' computation. Using the PSA Agricultural Indicators System Agricultural Credit Report 2019-10, the average annual growth from 2014-2016 is computed at 25%. The total agricultural production loans by banks is assumed to grow at this rate. The figure in 2017 is equal to 405,452.38 x 1.25 (2016 agricultural production loan x 1.25). The figure in 2018 is equal to the estimated 2017 agricultural production loan x 1. 25 and so on.
***Assumed to be 13.7033% of the total agricultural production loans. The rate is the average of the proportion of the total agricultural production loans that goes to SFF, as shared by representatives of the LBP lending centers and cooperative rural bank to the KII/FGD conducted by the PIDS team.

The importance of the agricultural sector in providing inputs to the manufacturing and services sectors has been recognized by the Philippine Development Plan 2017-2022. Currently, there are many lending programs led by the governments such as the Survival and Recovery Access (SURE), Rice Competitiveness Enhancement Fund (RCEF) and Agricultural Competitiveness Enhancement Fund (ACEF) and by the LBP such as the *Sikat Saka* and the Accessible Funds For Delivery to Agrarian Reform Beneficiaries (AFFORD-ARB) (see appendix 1 for a comprehensive compilation of state-owned banks' and government's lending programs). While challenges in financing remain, the aggressive lending and development programs in the agricultural sector will likely manage these lingering issues. The more pressing concerns that need immediate attention are inadequate markets and the attendant low farmgate prices. Thus, this paper aims to analyze the following

- *Markets*: How widespread is credit rationing among the SFF? Are there limited formal credit market activities among agricultural households?
- *Agricultural value chains*: How well do financial institutions understand the role of the SFF in the agricultural value chain? What are the lending challenges and opportunities in several agricultural value chains involving the SFF?
- *Technology*: How do advancements in technology (e.g. mechanizing the agricultural processes, leveraging mobile phones and electronic payment platforms) enhance the access to formal credit? How have these advancements been harnessed by the SFF?

- *Strategies*: How have the current strategies/programs improved the SFF's access to credit? What are the promising strategies to improve credit access? How can these promising strategies be realized or scaled-up?

This study is part of the "Assessment of the Credit Demand of Small Farmer and Fisherfolk" project. The project aims to:

i) Analyze the demand for agricultural credit of SFF, and determine the key factors that influence their demand for credit;
ii) Develop a methodology for estimating and updating the credit demand of SFF, including validation of previously used techniques in credit demand gap estimation;
iii) Estimate the annual demand for loans of SFF for the 5-year period (2018-2022) and for major commodities (such as rice, corn, high value commercial crops, livestock, and poultry); and
iv) Recommend policy measures to enhance SFF's demand for agricultural credit.

This is the qualitative part of the project. Thus, it addresses objectives i) and iv).

2. Qualitative method: Policy analysis of current and emerging issues

2.1 Sites and respondents to the KII and FGD

The qualitative method involves KII and FGD with various stakeholders in agricultural credit to analyze credit rationing, agricultural value chain, technology, and strategies towards enhanced access to formal credit. To select the sites, the Philippine Statistics Authority (PSA) 2012 Census of Agriculture and Fisheries[2] is used to identify crops that are produced in high volume. These include hog/swine (livestock), *palay* (temporary crop), and coconut, banana and pineapple (high-value commercial crops). The provinces that produce these crops are then chosen such that there is a good mix of areas in Luzon, Visayas, and Mindanao.

Due to the COVID-19 pandemic, the PIDS team conducted virtual KII and FGD from July 29, 2020 to September 23, 2020. The Agriculture Credit Policy Council (ACPC) on-ground personnel helped in the coordination with KII and FGD participants and in facilitating the virtual interviews. Respondents include 15 SFF and 20 representatives from various credit sources (see Table 2). The median age of the SFF respondents is 49 years old. Around 28% are college graduates, 19% have spouses that are college graduates, and 29% are lot owners. Respondents are asked questions that revolve not only around the process of acquiring credit but around good practices, issues and challenges, and existing and potential SFF lending strategies as well (see Appendices 2-4 for the guide questions).

Table 2: Respondents to the KII/FGD

Study area	Demand side	Supply side
Nueva Ecija	2	
Quezon	2	1
Negros Occidental	8	6
Bukidnon	3	13
Total	**15**	**20**

Note: Demand side: rice farmers in Nueva Ecija, coconut farmers in Quezon, fisherfolk and livestock raisers in Negros Occidental; and banana farmers in Bukidnon.
Supply side: Relevant loan officers from different financial institutions such as Land Bank of the Philippines, Microfinance Institutions, and Cooperative Banks; officers and staff from cooperatives, and informal lenders.

[2] The PUF is still not available although PSA has released publication highlights.

2.2 Study areas

Bukidnon[3]
Bukidnon is a landlocked province situated in Northern Mindanao that has a total land area of 1,049,859 hectares. Its major crop in terms of crop area harvested is corn, followed by *palay* and sugarcane. Other major agricultural crops in the province include pineapple, banana, coffee, and coconut. Banana in particular is an emerging prospect as major plantations are looking to further expand their operations in the area.

Negros Occidental[4]
Negros Occidental, known as the "Sugarbowl of the Philippines", is a province located in the Western Visayas region. Aside from sugarcane, its major crops are *palay* and corn. Livestock, poultry, and fishing are also major sources of livelihood in the province. A challenge in the province's agricultural sector is the volatile nature of the sugar industry. Thus, agricultural diversification is being promoted. There is also potential for expanding the fishing industry since a number of its municipalities are located in rich coastal areas.

Nueva Ecija
Nueva Ecija is known to be the "Rice Granary of the Philippines". In 2020, the PSA reported that Nueva Ecija produced 959342 metric tons of *palay*, the highest among all provinces in the Philippines. Moreover, the 2012 Census for Agriculture and Fisheries reports that almost 60% of the *barangays* in Nueva Ecija have rice or corn mill. Currently, *palay* farmers in Nueva Ecija are struggling with the drop in *palay* prices[5], which based on PSA data, have declined to PhP17.12/kilo in the 2nd week of September. Aside from rice, Nueva Ecija also produces corn and onion. Investments in infrastructure have already been in place, an example of which is the near-completion of the PhP 190 Million cold storage facility funded by the Department of Agriculture-Philippine Rural Development Project (DA-PRDP) for the benefit of the onion farmers in the province[6].

Quezon
Quezon province is the leading producer of coconut in the country. Aside from coconut, major crops also include rice, corn, mango, and banana. Major livestock and poultry production for Quezon consists of chicken, duck, carabao, goat, and cattle. In 2019, the DA and the Philippine Coconut Authority launched the Model Coconut Farm, piloted in Gumaca Quezon, which aims to transform at least 1-million hectares of mono-cropped coconut farms into "Model Coconut Farms" where diversified farming and the use of modern technology will be practiced by the farmers[7].

3. Review of related literature

3.1 Credit rationing and risks

Without a doubt, agricultural credit is an important element in agricultural development. It helps in smoothing consumption given covariate shocks and the oftentimes mismatch between consumption and production. It helps to improve the productivity of the sector by facilitating the adoption of modern technologies and the purchase of farm inputs. It also improves the efficiency of the smallholders. For example, access to credit has been found to increase the technical efficiency of rice farmers in Pakistan (Chandio et al 2019) and of tomato, cabbage, and beetroot farmers in Swaziland (Masuku 2015) while it has been found to enhance the farmers' cultivation practices in Mekong Delta (Duy et al 2012).

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[3] *Taken from https://bukidnon.gov.ph/2012/11/19/agriculture/*
[4] *Taken from https://www.negros-occ.gov.ph/about/the-history-geography/*
[5] *Taken from https://newsinfo.inquirer.net/1341292/farmers-cry-for-help-as-palay-prices-drop*
[6] *Taken from https://www.pna.gov.ph/articles/1114736*
[7] *Taken from https://www.bworldonline.com/diversified-crop-program-targets-conversion-of-1-m- hectaresplanted to-coconut/*

Despite these positive effects, there appears to be high unmet demand for credit and access to formal credit appears problematic (see for example, Swain 2002, Maurer 2014). Credit rationing, broadly defined as excess demand for loans, can be observed in various ways. It manifests in a situation where borrowers receive a smaller amount of loan than they requested at a given loan rate (Padmanabhan 1981) or in a situation where borrowers cannot borrow at the interest rate they consider appropriate or borrowers are denied credit because the lenders think they may not be able to obtain its required return at any interest rate (Jaffee and Stiglitz 1990).

While credit rationing can occur in any sector, rationing in agricultural credit is widespread due to several risks, namely, risks in agriculture and risks in agricultural finance. Risks in agriculture are risks from the perspectives of the farmer while risks in agricultural finance reflect risks faced by financial institutions when lending to farmers (Maurer 2014). Risks in agriculture can come from various sources: production risk, market risk, financial risk, legal and environmental risk, and human resources risk (OECD 2009; Angelucci and Conforti 2010). Of these risks, production and market risks are identified to be prevalent in the agricultural sector. Risks in agricultural finance, on the other hand, arise from the asymmetric information that results in adverse selection and moral hazard (see for example, Jaffee and Russell 1976, Stiglitz and Weiss 1981). Since lenders do not have full information on the borrowers' attributes or on the borrowers' actions after the loan is awarded, borrowers may receive an amount smaller than applied for or none at all (Olomola and Gyimah-Brempong 2014). Problems brought about by imperfect information are more pronounced for SFF due to the inadequacy of their productive assets that can be used as collateral.

As a result of credit rationing, small-scale farmers turn to informal credit sources. Borrowing from informal channels is attractive since it offers flexible repayment schedules, variable amounts of loan amortization, adjustable collateral requirements, and payment of the loan at the farmgate (Llanto 1989). Indeed, the lack of knowledge about the target clients' financial needs, the nature of their different economic activities, and the dynamics and risks in their commercial relations have resulted in the low penetration of the formal sector in rural areas (Hernandez 2017).

Risks in agriculture and agricultural finance are necessarily interrelated (Maurer 2014). Uncertainties in production and market prices feed into the reluctance of lending institutions to extend credit to farmers and fisherfolk. Unless instruments, such as insurance and support networks, are in place, financial institutions are unwilling to provide credit especially in the likely possibility of systemic risks (Gonzalez-Vega 2017). In addition, the timing of production tasks, such as planting, fertilizing, and harvesting, need careful planning. Thus, monitoring, such as technical visits and the requirement of reports, are often devised to minimize the risks faced by lenders (Carrera et al 2020). While this can increase the probability of repayment, monitoring can entail additional administrative and transaction costs that can discourage lenders from extending credit.

There are three types of credit rationing: quantity rationing, risk rationing, and price rationing (see Boucher et al, 2008; Ali et al, 2014). Quantity rationing is rationing from the supply side and it occurs when lenders reject loan applications due to lack of collateral or to perceived risks associated with the project. Risk rationing is rationing from the demand side and happens when borrowers do not borrow due to fears of indebtedness or to the desire of preserving their productive assets (Olomola and Gyimah-Brempong 2014). Further, many farmers do not request credit due to the costs arising from project preparation, negotiation, and registration of guarantees (Carrer et al, 2020). On the other hand, price rationing[8] is rationing that happens when borrowers do not borrow due to the amount of loan offered at the given interest rate. These types of rationing are affected differently by different factors. Olomola and Gyimah-Brempong (2014) find that the farming experience is a significant factor in quantity rationing and price rationing. On the other hand, financial and productive wealth appears to be a

[8] External price rationing occurs if the lender raises the interest rate or transaction costs so that free choice along the credit demand curve results in a utility maximizing position while internal price rationing occurs when a borrower chooses whether or not to borrow at fair market prices and transaction costs (Olomola and Gyimah-Brempong 2014).

common determinant of risk rationing. Boucher et al (2008), for example, find that the financially wealthy will not be quantity-rationed but they will be risk-rationed.

Other than the various types of risks that affect rationing, there are factors that limit the access to financial services in rural areas, the most prominent of which involves geographical location (see for example, Gonzalez-Vega 2017). Distance presents a problem to the extent that it results in high transaction costs due to the greater spatial dispersion of production, the lower population densities, the generally lower quality of infrastructure, and the seasonality and often high covariance of rural production activities (Olomola and Gyimah-Brempong 2014). Smallholder agriculture is also constrained to adapt to today's "financialized" and integrated economy due to unclear property rights and other institutional issues. These barriers create challenges in verification and monitoring, and exacerbates issues arising from imperfect information (Gonzalez-Vega 2017).

The institutional capacity of lending entities is also a factor. In Nigeria, for example, financial institutions often display a limited understanding of the agricultural sector, which lead to high interest rates and inadequate or inappropriate products and services (Olomola and Gyimah-Brempong 2014). In addition, when financial institutions cannot fully ascertain the borrower's creditworthiness, they exclude borrowers, allocate limited credit, or exact unfavorable contract terms (Benjamin et al 2016; Gonzalez-Vega 2017).

3.2 Agricultural value chains and innovations

Due to the risks involved in the agricultural sector, mitigation measures should be in place not only for the sector to be productive and efficient but for countries to harness the sector's full potential in agribusiness. Thus, there are initiatives to manage these risks to attract investments into the sector. There are macro-level initiatives such as crop insurance, input subsidies, and state-sponsored agricultural credit (Akhtar et al 2019) and farm-level initiatives such as crop diversification and involvement in off-farm generation of income (Santeramo et al 2014; Saqib 2016).

Among these, credit has been the major instrument that facilitates production activities in agriculture. The formal financial sector has the comparative advantage in terms of funds and financial products and services. However, it has low penetration rate in rural areas due the confluence of issues such as imperfect information, weak institutional capacity to navigate the challenges presented by geographical location, and lack of knowledge on the nature and types of activities in the agricultural sector. The inherent variability in agricultural production arising from systemic and covariate risks has resulted in various types of credit rationing by the formal sector and in borrowers seeking credit more from informal sources. Informal sources, such as local lenders and stakeholders in the production and trading chains, are attractive since due to flexibility and lower transaction costs.

In recent years, there has been a recognition that both formal and informal sources can come together in the agricultural value chain to support farmers and fisherfolk and promote their income through better market integration and value addition (Angelucci and Conforti 2010). Value chains can be conceived as networks that support three types of flows: physical, financial and informational, all of which are responsible for movements of physical products, payments and lending arrangements, and for coordination among physical and financial flows (Angelucci and Conforti 2010). Different stakeholders have different expertise, knowledge, and capabilities, and value chain brings these together to overcome the costs of acquiring information and to improve the delivery of financial services in the countryside.

Several Asian countries have positive experiences in value chain. In Vietnam, a private company that supplies ginger to large exporters and retailers, has used its capital to provide loans to quantity-rationed borrowers who are into ginger production and has provided seedlings and extension services to small-scale producers (Hurri et al 2017). Over the course of its operation, the private company has established successful collaboration with producers through its financial services and has facilitated the markets between producers and exporters/retailers of ginger.

Digital technology is also used to enhance the agricultural value chain. In India, they leverage on ICT to enhance competition and transparency in bidding for agricultural produce through the electronic tender system (Puri and Shrivastava 2017). In this system, the activities of farmers, traders, and banks during e-tendering interrelate with each other through digital technology. Traders bid through the computer systems in shops/kiosks and winning bidders have an option to send the money though mobile or bank transfers. In addition, the tender system has attractive features that enhance the partnership of farmers and financial intermediaries. Farmers has options to store their produce in accredited warehouses and use the warehouse receipt as a security for their bank loan. This, and the fact that participants to the tender system have financial accounts, reduces credit rationing arising from imperfect information. The tender system records each transaction, which helps in the development of appropriate financial products and services.

Interlinking of credit transactions, in order to overcome issues arising from imperfect information, has also been documented in the Philippines. A self-help group in Cotabato has been documented to forge linkages with banks to develop a long-term relationship with formal financial channels. In one case, a corporation has been organized to obtain production loans from the rural bank, and to act as a fund conduit and guarantor to farmer loans (Llanto 1989). In Nueva Ecija, Nagarajan and Meyer (1998) document that farmers are required to pay their loans from trader-lenders with their harvests and to sell their surplus harvest to trader-lenders as well. This approach benefits both farmers and trader-lenders, with the former not having to worry about marketing/storage and the latter assured of reliable source of commodities to trade. A microfinance institution, known as Alalay Sa Kaunlaran, Incorporated (ASKI), also in Nueva Ecija, is using the group-context lending approach where members are each other's guarantor. Beyond helping farmers to secure loans, ASKI requires all farmers to put into a savings account 15% of the loan, which serves as the farmers' hedge against covariate risks. The marketing and trading cooperative of ASKI buys the cassava harvest and sells to San Miguel Corporation, thereby facilitating the marketing/selling of harvests and the repayment of loans (Ani and Andales 2017).

4. Key results and discussion

4.1 Supply side players in the financing ecosystem

There are various players that provide credit to the SFF. These include informal lenders such as agro-input traders and formal sources such as banks, microfinance institutions, and cooperatives. Banks and cooperatives are conduits/lending partners of government lending programs (see Figure 1).

Land Bank of the Philippines (LBP)

The LBP has a lending center that has served the SFF through its lending programs. It has expanded to commercial loans, has consolidated commercial and agrarian lending, and now serves both small and big clients. The lending center caters mostly to the SFF, or farmers tilling lands of up to 5 hectares, poultry breeders with at most 1000 hens, and hog growers with at most 5000 heads. Most of the LBP's loans to the SFF are tie-up programs with national agencies, without which the LBP will not be able to offer a rate that the SFF can afford. These include the Agricultural Competitiveness Enhancement Fund (ACEF) Lending Program (tie-up with DA), the Expanded Rice Credit Assistance under the Rice Competitiveness Enhancement Fund (ERCA-RCEF), and the Socialized Credit Program (funded by the Sugar Regulatory Administration). Funds come from the agencies while the LBP facilitates the credit investigation, approval, monitoring, and collection.

These programs allow the bank to relax most of the requirements that the SFF find burdensome to comply with. In ACEF, for example, borrowers only need to fill-out the application form and submit a barangay clearance and a simple farm plan[9]. The ERCA-RCEF lends to rice farmers registered in the

[9] However, representatives from some lending centers shared that they also require a sworn affidavit of no outstanding loan with other financial institutions for the same project, an endorsement from DA, and a tax identification number. The latter is necessary as this serves as the identification of borrowers. While the SFF are the primary clients of ACEF, micro and small enterprises, cooperatives, and organizations can also borrow as long as the projects are related to agriculture.

Registry System on Basic Sectors in Agriculture (RSBSA) and to DA-accredited cooperatives. The RSBSA is a registry system of the DA and serves to identify the SFF eligible for government funding and assistance. For on-lending by cooperatives under ERCA-RCEF, interest rate is at 0% per annum provided that the effective pass-on rate to end borrowers is not higher than 6% per annum[10]. Since lending to the SFF classifies as retail lending, the bank is not able to monitor all borrowers. With tie-up programs in place, partner agencies do the field monitoring. Despite these, some representatives of the LBP lending centers shared that only around 20-50% of SFF borrowers are able to pay. However, repayment data from conduits of DA-ACPC programs like PLEA and SURE is at 97.6% and 100%, respectively. After the program ends, the LBP turns over the collection and collectibles to funding agencies.

The LBP uses its internal funds for the AFFORD-ARB Program, which finances the production of rice, corn, and high-value crops as well as the acquisition of small farm implements[11]. Borrowers are identified and endorsed by the DAR. The LBP also has the Calamity Rehabilitation Support (CARES) Program to provide financial support to sectors severely affected by natural calamities. Under CARES, SFF can borrow for agriculture-related projects although the interest rate is higher at 5% per annum. All loans financed through internal funds are covered by the Agricultural Guarantee Fund Pool (AGFP), which covers 85-90% of the loaned amount. Tie-up programs, on the other hand, are covered only by the crop insurance.

The bank also offers wholesale lending to the LGU, cooperatives, microfinance institutions, and other banks, which then lend to the SFF. It uses its regular funds to finance wholesale lending and since loaned amount is typically bigger, the bank requires collection reports from cooperatives and collateral from bigger ones. These borrowers allocate only a small portion of their portfolio to the SFF lending due to the risk involved. The LBP also lends to input traders and it strictly requires collateral.

The LBP follows the BSP guidelines on the process of lending. This means that borrowers have to fill out forms and submit documentary requirements, which will be the basis of the evaluation and approval or disapproval later on. Loan applications are not approved when the lending center cannot verify the existence of the land that will be used in the project or when borrowers have no proof of ownership. Credit history in the LBP and in other financing institutions, the borrowers' outstanding loans, and whether the projects being applied for are already financed by other programs are major considerations as well. The bank's standard processing time is within 45 days upon receipt of complete requirements.

The terms of payment depend on the crop. For rice and corn, borrowers pay after 4 months and must have fully paid (principal and interest) the loan after 6 months. For long-gestating crops like banana or coffee, borrowers pay on a staggered basis when crops have started to bear fruits. When cooperatives default, the LBP evaluates the reasons for default and loans are restructured. If borrowers are still not able to pay, collaterals are foreclosed and the cooperatives, including all their members, are no longer qualified to apply for loans in the future. The same is true for individual borrowers.

Cooperatives

Cooperatives are important players in facilitating the SFF's access to credits. In Negros Occidental, a multipurpose cooperative offers various loans for consumption, education, housing, and production. Out of its total loanable funds, around 10% goes to hog raisers. A credit committee assesses and approves the hog raisers' loans based on project proposals. The cooperative normally charges an interest of 16% per annum and offers different windows (3 months, 6 months, 1 year). It also offers inputs such as dispersal, which needs to be repaid after 3-4 months. Hog raisers are not necessarily members but upon default, the loan will be deducted from the member who recommended the SFF.

Another multipurpose cooperative in Negros Occidental originally offered credit and savings but expanded to the sale of grains and grocery items and to the operation of a boarding house and

[10] *https://www.landbank.com/news/landbank-makes-loans-more-accessible-affordable-for-farmers-fishers*
[11] *https://www.landbank.com/news/landbank-makes-loans-more-accessible-affordable-for-farmers-fishers*

commercial buildings. It charges PhP 100 for membership and caters to around 488 SFF (50% of the total clients) who are hog raisers, fishpond operators or into fishing and fish vending. It has two credit facilities in the LBP, namely, term loan and rediscounting, and pays between 7.75% and 9% interest per annum. Due to its credit history, its loan application has never been denied by the LBP. However, the lockdown has affected majority of its clients as they are constrained from transporting harvests that results in low prices as supply floods the local market. The cooperative has sudden spikes of membership since December 2019 due to the cooperative's tie-up with DA, which borrowers use to buy hogs. However, raisers also borrow inputs from the cooperative since they raise more than 7 hogs (the number of hogs that the proceeds from the DA program can finance). Being a conduit of government funds, the cooperative target rural areas where the SFF are unlikely to have access to formal credit sources. There are personnel that assist the SFF in filling-out documents and in articulating the project proposal.

In Bukidnon, a multipurpose cooperative has farmers as majority of its members. Members pay a membership fee of PhP 500 and an initial PhP 2500 capital build-up. Borrowers fill out an application form. While it takes 1 week to process a loan, the cooperative employs a staggered release strategy (e.g. if the loaned amount is for fertilizer, the cooperative will release the money at the time that the fertilizer will be applied). It requires collateral for loans above PhP 50000, charges an interest of 3% per month, service fee of 2%, and an insurance of 0.4%. The cooperative also offers savings at 4% per annum. Another multipurpose credit cooperative in Bukidnon serves farmers, both small and landowners, and covers several municipalities in Bukidnon in its 15 years of operation. It has several sources of funds such as the savings and capital share, loans from the LBP and United Coconut Planter's Bank (UCPB), and tie-ups with government agencies. For loans using regular funds, the cooperative charges an interest of 12-18% per annum, depending on the borrowers' credit history. Borrowers need to be a member and need two guarantors when applying for a loan. For borrowers with good credit standing, the cooperative lends money and for borrowers who have yet to establish their credit history, the cooperative lends inputs. Release of the loans coincides with the start of the planting season and in tranches based on the farm plan submitted. Collateral is not required for small farmers as long as they have good credit history but it is required for big amount of loans. The maximum amount that the cooperative lends ranges from PhP 50000 - PhP 300000 depending on the crop and farm area. The cooperative has account officers that monitor the projects especially in remote areas and is becoming more proactive in protecting their funds by enrolling in the AGFP to cover willful defaults.

One cooperative in Bukidnon started out as giving loans using share capital and savings deposit but later on borrowed from banks to cater to the increasing demand. Currently, it covers around 8000 members (30% of which are farmers of various crops except banana) all over Bukidnon. The cooperative offers savings and time deposits and all its loans are insured. For borrowers under the DA-ACPC program, borrowers need to put in a capital share of PhP 500 while regular borrowers need to put in PhP 2000. The former can only borrow up to PhP 50000 while the latter can borrow up to PhP 1000000.

Other banks
In Negros Occidental, a microfinance rural bank has a big portfolio of ARB or those with Certificate of Land Ownership Award (CLOA) (around 80-85%) while the remaining 15-20% are small farmers or those with 3-10 hectares of land. The bank has general and crop-specific products and services. For its loans to ARB, the bank uses the Grameen-type approach to agricultural lending. It asks the ARB to form a group of ARB members with contiguous lands and to monitor each other's fields. While loans are availed individually and members do not assume responsibility in cases of defaults, the bank finds that this arrangement facilitates monitoring and reduces the high administrative costs. Loans are initially limited to PhP 30000 and are increased in succeeding loans depending on the area being tilled. For its loans to the SFF, the bank offers a regular product and requires collateral such as the title of the land or chattel mortgage. For agricultural loans, borrowers submit a farm plan that show the schedule of activities and the funds needed for each. When the credit line is approved, it is released in tranches following the farm plan. Farmers repay the full loan after harvest. The bank was able to participate in the DAR lending project to ARB 12-13 years ago. Currently, it is using its own funds and the

representative shared that there are issues in ARB lending since sugarcane farmers have arrangements with millers that are controlled by big farmers. Thus, the bank does not have special arrangements to ensure that they have claims to the farmers' produce. The bank continues to review its products and services since it is faced by competitors like the LBP that offer lower interest and are less strict in terms of monitoring.

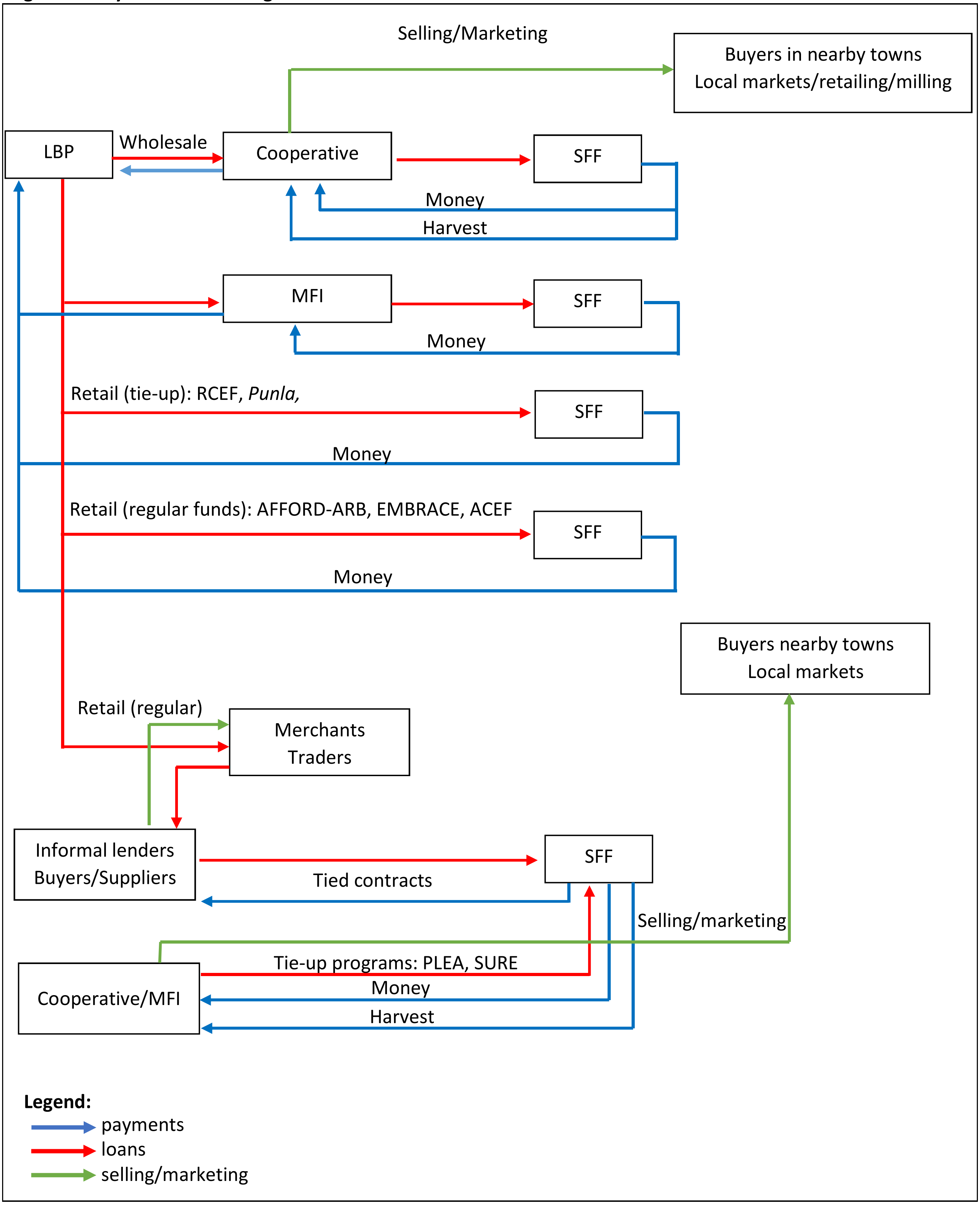
A consolidated cooperative bank in Bukidnon previously catered to the SFF retail lending. However, the bank's priorities have shifted with the appointment of a new vice-president whose focus is on big loans (PhP 500000 above). The bank continues to serve small farmers with good credit standing, however. The cooperative bank requires collateral (real estate) and a farm proposal. It then assesses the application based on these documents, conducts credit investigation, evaluates the property submitted as collateral, and approves the loan. The interest rate varies from 12-20% per annum depending on the type of crops being financed although the borrowers' credit rating can narrow the interest down to 12-14%. It accepts CLOA as long as the 10-year prescription period has passed and the borrower is able to present a certification from DAR. However, for small farmers availing of the DA-ACPC Production Loan Easy Access (PLEA) program, there is no collateral required since borrowers are identified by the funding agency and the schedule and amortization are based on the production. The bank, however, uses the farm plan to identify the maximum amount that a borrower can loan for. Loans extended to member cooperatives are limited to their capital shares while loans extended to non-member cooperatives are based on the project proposal and on standard documentary requirements.

Microfinance Institutions (MFI)
MFI offer credit facility to the SFF as well. A microfinance institution in Negros Occidental offers both savings and lending products. Other than voluntary deposits, borrowers are required to put a multiple of PhP 50 into their savings account for every loan cycle (e.g. 1st cycle, PhP 50, 5th cycle PhP 250). There is also a group fund that members put money in every time they pay their loans. The initial amount of money that a member can borrow is PhP 5000, which will be increased as credit history is established. Borrowers determine the terms of the loan. However, this microfinance institution operates only in selected areas. Another microfinance institution in Negros Occidental offers flexible loan repayment as it allows any amount that can be paid long as the full loan amount is paid within the agreed period of the loan. It charges between 1.7% and 2.3% per month depending on the livestock project applied for, with the interest rate for hogs higher than that for poultry.

Input traders/merchants and associations
Several input traders and merchants also provide credit to the SFF. In Negros Occidental, a businesswoman shared that her business of 30 years includes agricultural inputs such as fertilizer, hog feeds, and vitamins and she lends these to farmers without requiring documents as long as borrowers are recommended by the Municipal Agriculture Office. In Bukidnon, traders extend loans to banana farmers during harvest time and take the produce as payment for the loans. The traders have buyers in nearby areas such as Cebu. There is also an association of crab gatherers in Negros Occidental, the members of which are paying monthly dues that can be used to provide credit assistance to members. The association has a deal with a crab plant that buys their harvest.

Informal lenders, such as input sellers and merchants, understand the critical role of the SFF in the sustainability of their businesses. As such, an input distributor in Negros Occidental shared that they only charge the market price for their inputs when lending to hog raisers. The distributor has reached out to hog raisers associations and has found that the difference between the backyard (PhP 95) and farmgate price (PhP 110) is a result of inadequate or incorrect feeding practices (e.g. mixing feeds, reducing the amount). The feeds distributor designed a program such that recipients have equity (e.g. capitalization on the starter and pre-starter feeds) and the distributor will finance the grower and finisher. This has resulted in the improvement of the quality of the hogs, which attracted good buyers from Bacolod. Currently, the input seller has a tie-up with meat shops in Bacolod and Cebu. This assures the input seller of being repaid and the hog raisers of income after 3-4 months.

Figure 1: Players in SFF lending



Informal lenders, such as input traders and merchants, rarely experience defaults and allow for compromise in the instances of defaults. In extreme cases such as death in the family member, lenders stop giving fresh loans while others restructure the loan.

Local Government Units (LGU)

From the perspective of the SFF, the LGU have significant roles to play in information dissemination such as providing information, education, and communication materials related to climate change and in regular monitoring of the price of agricultural commodities to prevent farmers and fisherfolk from being cheated. The LGU, through the Municipal/Provincial Agriculture Office, have provided agricultural inputs such as seeds and fertilizers. During this time of pandemic, some LGU in Negros Occidental have also established mobile markets that absorb the surplus in harvest. The provincial government in Bukidnon provides inputs to corn farmers although currently, funds have been diverted to the COVID-19 response. There is no separate program for banana growers since most of the land in Bukidnon are rented out by owners and are tilled by multinational companies for growing bananas.

Moreover, the LGU have also provided assistance in the screening of loan applicants for some of the government lending programs. The LGU in Negros Occidental have assisted the LBP in the assessment of the projects of borrowers under the Agricultural Credit Enhancing Program. The LGU participated in determining the viability of the projects and the compliance of borrowers to the requirements. The information available to the LGU has been valuable especially in screening projects involving high-value crops. The LGU also assist in compiling documents necessary for the SFF to participate in government lending programs and to receive government assistance. For example, the SFF need to be registered in the Negros Occidental provincial master list so they can qualify for the Universal Crop Insurance Program (including fisherfolk), a program in which the insurance premium is covered by the province. The identification of DA programs for the SFF also relies on the SFF's registration.

Despite the existing LGU assistance, the SFF have identified several ways to improve LGU services. These include the following:

- Strengthen the enforcement of fishery laws. Some fisherfolk shared that that there are still illegal fishers that enter the area.
- Continue the enforcement of crab reseeding policy, which really help sustain the crab industry but has not received full support from some local chief executives in Negros Occidental. This emphasizes the need for shielding good programs from politics.
- Strengthen monitoring and technical assistance on hog-raisers. This is important for early detection of diseases and thus prevention of losses. However, most agriculture offices do not have enough manpower to conduct regular monitoring
- Provide assistance to banana farmers in Bukidnon who are not in partnership with multinational companies in the form of insurance and agro-input supplies. Most of the assistance are channeled to corn, the major crop in Bukidnon although banana farming appears to be an emerging source of income
- Strengthen information dissemination on commodity-specific services, which include
  A. the appropriate harvesting of crabs
  B. the availability of insurance on hogs. Information dissemination is important so that hog-raisers will know the processes and requirements.

4.2 Interactions of supply-side players

Banks lend to cooperatives. In Negros Occidental, a microfinance rural bank is also a wholesale lender as it lends to cooperatives or associations on a fixed term. The bank requires collateral and a business plan. It also accepts assignment of receivables especially in cases when cooperatives are engaged into marketing, which typically experience delay due to problems on infrastructure and transportation. The maximum amount of credit line is based on the bank's appraisal of the borrowers' assets although credit history is also a factor. The terms of the loan vary depending on the business plan. They also finance cooperatives that are specializing in production.

While some cooperatives have loans from Banco De Oro (BDO) and UCPB, most borrow from the LBP since they already qualify for the various LBP lending programs. These cooperatives are successful and they lend to the community including the SFF. Big cooperatives are also conduits that lend to small and microentrepreneurs and the SFF. The LBP does not require collateral from big cooperatives but requires from these entities not only their SEC registration but to be of good credit standing as well. The LBP distinguishes between big and small cooperatives, with the former falling under the bank's regular lending programs and the latter under the tie-up with various government agencies. Regular lending programs are financed by LBP funds and the LBP charges rate from 6.5 to 9%, depending on the borrower's credit rating. A big cooperative in Bukidnon has borrowed from the LBP around PhP 11 million at 2% for 6 months under the RCEF and around PhP 24 million at 5% for 6 months from the LBP's regular funds.

Banks lend to LGU. The LBP also lends to the LGU and charges from 6.5 to 9% per annum. The LGU use their internal revenue allocation to pay their loans. In Negros Occidental, 20 out 31 LGU clients have good credit standing. The bank has rice lending program to assist the LGU in buying the farmers' harvest to prevent oversupply. The LBP also extends loans to the LGU to finance projects that indirectly benefit the SFF (e.g. farm-to-market road)

Cooperatives and rural banks are conduits of some of the government SFF lending programs. Several cooperatives in Negros Occidental and Bukidnon have been lending partners of DA-ACPC. As conduits of the PLEA program, they get a 1% service fee and the pass-on rate of 6% from the borrowers. PLEA borrowers only need a certification from the barangay that they are marginal SFF (e.g. owner of less than 3 hectares or property/lot below 7 hectares). Lending partners shared that the PLEA program has helped the poorest of the poor although this will soon be discontinued since this is a program under the watch of the previous DA secretary.

Input traders and merchants that cater to the SFF borrow money from formal and informal lenders to finance their products and services. A businesswoman from Negros Occidental shared that several banks turned her down including the RCBC, LBP, and DBP. However, she was able to borrow PhP 1.5 million from BDO through their SME loan program payable for 10 years at 7% per annum. She used the money to buy hogs for dispersal. The loan was paid in three years and the business has become sustainable. Meanwhile, an input trader in Negros Occidental has a credit line from an input supplier that requires him to pay after a month. The feeds distributor then finances hog raisers (in terms of feeds) and will get the hogs as payment after 3-4 months.

In Bukidnon, some informal lenders, who cater to banana, corn, and *ube* farmers, borrow from cooperatives when the amount loaned from them is higher than PhP 20000. Some ask help from family while others get funds from their buyers in Cebu. These lenders loan money to farmers when crops are already growing and in the case of bananas, during harvest time. While lenders charge no interest for the loan, borrowers are expected to sell their harvest only to the lenders. Repayment takes place every week once bananas have started to bear fruits and lenders will get the harvest until the loans are paid. Lenders shared that they buy at market price since there are many lenders that serve nearby areas. In one barangay alone, there are 14 lenders and in nearby barangays, there are more.

4.3 Demand side: The SFF

The SFF are not homogenous and this should be considered in designing SFF credit programs. The SFF is not a homogenous group. The DA defines small farmers as those that operate farms of 3 hectares and below. Banks, rural bank, and cooperative rural banks consider farmers that operate or manage farms up to 10 hectares as small farmers. The 2017 ACPC SFF Indebtedness Survey shows that while the average farm size is similar between borrowing and non-borrowing farmers, the annual production income of farmers who borrow from formal credit sources is about twice that of non-borrowing farmers (Table 3).

Aside from land size, small farmers can also be characterized by technology use, crop type, and access to value chain. Within the SFF group, there are subsistence and backyard farmers that engage in agriculture mainly as a safety net rather than for commercial purposes. Farm production is usually for consumption and there are no or limited plans for expansion. They could also be farmers who have no desire to borrow. On the other hand, there are farmers who are engaged in agriculture for commercial purposes (e.g. selling the bulk of produce in the local markets and investing in their farms for business expansion).

Table 3: Characteristics of Borrowing and Non-Borrowing Farmers

	Borrower (formal)		Borrower (informal)		Borrower (both)		Non-Borrower	
	n	Mean	n	Mean	n	Mean	n	Mean
Age	271	51.86	213	52.58	18	47.72	421	53.25
HH Size	272	4.99	214	4.77	18	5.33	423	4.59
Size of parcel farmed (ha)	272	1.48	214	1.47	18	1.78	423	1.49
Production Income (PhP)	272	94,412.61	214	75,415.64	18	111,589.90	423	55,600.93
Household Income (PhP)	272	163,727.30	214	131,826.90	18	204,653.00	423	108,947.70

Source: ACPC 2017 SFF Indebtedness Survey

Note: n is number of observations. Credit from pawnshops and LGUs were classified as informal.

The segmentation within SFF has to be considered in designing credit programs for smallholders. Subsistence farmers may require more capacity-building programs that will expose or train them to technology and to business networks before access to credit. On the other hand, commercial SFF can be supported by access to formal credit and technology and by strengthening their links to the value chain.

The SFF experience several types of credit rationing. The SFF experience quantity rationing as banks screen applicants and look into the applicants' credit history. Banks exercise prudence before approving loans since they are aware that in the case of the SFF, loans are oftentimes used in consumption that makes default a likely possibility. In Negros Occidental, for example, a representative of microfinance rural bank shared that the bank currently serves 150 out of the 1500 ARB clients the bank initially started with. The remaining 150 clients are those with good credit standing. The LBP denies loans of individual borrowers or members of cooperatives that have record of default. A cooperative rural bank representative shared that they deny loans when there is no collateral, the value of the collateral is lower than the loan applied for, or the loaned amount exceeds the amount needed to execute the farm plan. Banks perform credit investigation and use credit history and outstanding loans as factors in credit evaluation.

Cooperatives also deny applicants. This happens when applicants do not have the appropriate infrastructure for projects they are applying loans for (e.g. pig pens, poultry pens). Some cooperatives also perform background and credit investigation with 5% of its members rejected. Members who are rejected withdraw from the cooperative. Informal lenders employ prudence in lending to SFF as well. A feeds distributor in Negros Occidental shared that he does not completely turn down input loans of hog raisers but reduces the amount of inputs he approves. The distributor understands hog-raising and he deploys technicians that regularly check the hogs. This knowledge allows him to determine if inputs applied for go overboard. Similarly, banana merchants in Bukidnon shared that they stop lending to farmers when the latter has big outstanding loans. Reducing the loaned amount is also a strategy of a multipurpose cooperative in Bukidnon. MFI also limit the initial loan that one can borrow (e.g. PhP 5000) although the credit line is increased as outstanding loans are repaid.

The SFF also experience risk rationing, or the rationing from the demand side as borrowers fear indebtedness or worry about the various costs of borrowing. Among the SFF, a common concern is the fear of default arising from the variability of and the uncertainty in their income. Others have no intention to borrow either because they know that banks have requirements such as land titles, they are not aware of the processes, or they are uncertain of loan approval anyway. In addition, some wanted to minimize their exposure since they have existing loans from other sources. There are also cases when there are no LBP branches (such as in Sumilang, Bukidnon) or branches are just recently established (such as in Quezon). There are credit facilities such as rural banks and cooperative banks but distance and transaction cost are deterrent factors.

The SFF need to be credit worthy to secure loans from banks, cooperatives, and MFI especially under regular lending program. While the bulk of funds for SFF loans come from government-funded credit programs, banks and other formal lending agencies also allocate their own funds for SFF credit. Banks are mandated through the Agri-Agra law to allocate 25% of their loanable funds to agriculture, MSMEs, and ARB. Moreover, rural banks, cooperative banks, and MFI, by their mandates, have small farmers and small businesses as their main clients.

Their mandates notwithstanding, banks and other formal lending agencies are more cautious in lending to SFF under their regular lending program compared to government-funded credit program. Table 4 shows the loan terms and conditions between the two. Regular lending programs are usually offered to clients with good credit ratings and to those who can offer some form of collateral for the loan. On the other hand, government credit programs are directed to riskier clients, usually to new borrowers and those who cannot provide acceptable assets as collateral.

For many SFF, they believe that they are not qualified under the regular programs of banks. Government credit programs, thus, respond to a market failure in the credit market, in particular, small farm agriculture where there are significant information asymmetries and high uncertainties in production and markets.

Due to the affordable and easy access government lending programs, some SFF prefer the formal credit sources for agricultural production loans. The LBP has lending programs in collaboration with national agencies that offer easy access and low interest rates. It also has a lending program that target government employees who are SFF. In these programs, few documents are required and payment is easy (e.g. monthly salary deduction). These borrowers recognize that informal lenders, such as *Turko*, charges onerously high interest rate (e.g. a loan of PhP 1000 has an interest of PhP 100 per month). For some of the SFF, they find that MFI ask for fewer documents, require no collateral, offer the most reasonable interest rate, and reach out more to borrowers through personalized delivery of services.

When asked to choose among banks, cooperatives, and MFI, some SFF prefer cooperatives since the latter has technicians that reach out to coastal and rural areas while others prefer MFI that are lending partners of government agencies since they require less documents and charge low interest rates. Some banana growers in Bukidnon prefer banks due to the low interest while others prefer cooperatives due to the ceiling imposed by banks on loanable funds. For these respondents, they have been relying on cooperatives for input financing for a long time. There are also banana growers who became members of cooperatives due to the benefits and assistance they can get out of the cooperatives' partnership with government agencies such as DA and DAR.

Others use informal channels such as input traders, merchants, and Turko for their broader financial needs. Representatives of microfinance institutions, cooperatives, and banks shared that accessibility is the SFF's major reason for using informal credit channels (e.g. *Turko*, 5-6 lending) since these are community-based lenders and they grant loans faster than any other credit sources. These sources do not require documents and offer easy payment terms (can pay PhP 20/day until the loan is repaid). Banks, and even MFI and cooperatives, require documents to be filled-out, submitted, and validated, and loans take time to be approved and released. Informal lenders also extend consumption loans when borrowers have established their credit history. This credit channel appears useful in addressing immediate cash needs such as in cases when a family member gets sick. Due to poor credit history, borrowers who are blacklisted from formal credit sources also turn to informal lenders.

Table 4: Loan terms and conditions of SFF production credit programs

Loan Conditions	Regular Production Credit Programs of Financial Institutions					ACPC SFF Production Credit Program (e.g. PLEA)
	LBP	Rural Banks or CRB	MFI	Multipurpose Cooperatives	Primary Cooperatives	
Target Clientele	Individual small farm holders; SMEs/ Farmers organizations/ cooperatives; traders, conduits (e.g. MFI)	start-up, small clients, microentrepreneurs, regular farmers, and ARB, farmers' cooperatives	microentrepreneurs, farmers, small clients	cooperative members or non-members who are endorsed by cooperative members;	cooperative members	SFF and Farmers registered in RSBSA; ARB
Loan Amount and Terms	Depends on the purpose of the loan	Loan amount depends on the crop. For regular ARB/SFF clients, release of agricultural loans is staggered and uses Grameen Bank-like scheme for ARB clients; ARB can loan around P30,000 to 50,000/ha. Farm plan required for ARB and regular agriculture loans For coops: fixed term usually 1 year; Max amount of credit line depends on asset appraisal, credit history or loan purpose. Coops registered, with permits, financial statements.	Up to P10,000. May be increase depending on credit history	Maximum loan of 50,000 for agriculture production depending on the project proposal. For sugarcane production loan can be from P50,00-75,000/hectare; Amount may also depend on their share capital. They also lend inputs. Terms can be from 6 months to 3 years Barangay certification that they are farmers.	Loan amount depends on farm proposal. Barangay clearance and certification that they have a land. They also check on existence of CLOA or land title but don't use as collateral	Loan amount up to P150,000 for 2 to10 years. Only one household member can avail of a loan from the program
Collateral	__Chattel mortgage and/or real estate mortgage __For small farmers Combination of PCIC insurance and/or AGFP guarantee; assignment of expected produce; assignment of chattel for fixed asset acquisition.	__For regular small farmers and cooperative borrowers, requires collateral, usually their land or chattel mortgage; no collateral for ARB. CLOA is accepted as collateral as long as the 10-year prescription period has lapse or has clearance from DAR. __Co-maker(s)/guarantors	Certification that spouse is aware of the loan. Collateral required for higher loans	__Co-maker(s) or guarantors. Savings and capital share are accepted as collateral. Assignment of produce can also be the collateral. __If new borrower they may require chattel or REM as collateral. CLOA after the 10-year prescription period is acceptable as collateral required but is not encouraged	Collateral is not strict, usually borrower's credentials or chattel (e.g. *baka*, *kalabaw*, appliances); but if loan is more than P50,000, land title is required	None
Interest rate	Interest rates range from 7-10% p.a. depending on borrower's credit rating.	2-3% per month or almost 22-25% p.a. for ARB 18-24% p.a. for regular SFFs; can go up to 27%. 12-20% p.a. depending on the area and credit scoring	Interest rate is 15% for 6 months, almost 2% per month	12%-18% per annum usually depends on credit history	Interest rate of 2-3% per month. Interest rates also depends on the purpose (for swine, 2.3%/mo., for chicken, 1.7%/mo.)	6% per annum or 0.5% per month.

Source: KIIs and FGDs; Profile of government agricultural credit programs (see Appendix 2-4 for questionnaire)

There are movements towards forming of SFF organizations/associations in order to benefit from government assistance. In Bukidnon, some banana farmers have recently established an association in order to avail of the assistance of DA such as free banana seedlings. Respondents shared that they need to be members so that DA can easily identify the potential beneficiaries.

4.4 Challenges and issues

4.4.1 Financing

The recent push towards LBP's direct lending and the influx of government-funded lending programs have provided a more focused approach to help the SFF and it has brought with it positive spillover effects in the SFF financing ecosystem. The *Sikat Saka*, an LBP lending program, has been successful in terms of high repayment rate that can be attributed to LBP's strong partnership with NIA. The NIA has more information on rice farmers and the agency has helped the LBP in screening and endorsing applicants. Currently, there are only 10 out of 200 rice farmers who have issues on repayment. Since the program uses LBP funds, the bank can claim from ACPC and from the AGFP in case of default. In addition, the tie-up programs of government agencies, such as the DA and DAR, with the LBP and big cooperatives have greatly improved the SFF's access to credit.

To keep up with the competition brought by the different LBP and State-led lending programs, rural banks and even informal lenders continuously review their products and services. These lending channels have reached out to communities that are likely to experience credit rationing. Representatives of a microfinance rural bank in Negros Occidental go to coastal areas to organize and identify people who need help and form these into groups who become eligible for financing. An input trader reaches out to hog growers association and offer financing and marketing solutions. He deploys technicians that regularly monitors the hogs to detect diseases early and to correct issues on feeding practices. These resulted in the improvement of the hog quality and in reducing the difference between the backyard and farmgate prices.

There are challenges to government-funded credit programs that need to be highlighted in order to improve the effectivity and efficiency of service delivery. These include issues on project monitoring, which the LBP does not have manpower for, and the collateral-free policy, which can be a source of moral hazard in SFF lending. The LBP is a major player in the implementation of government-funded lending programs. However, the LBP has limited manpower and individual processing of loans can be taxing although funding agencies of tie-up programs have substantially helped in assessing the borrower's eligibility. Projects approved by LBP under the State-led lending programs are not regularly monitored due to the lack of the manpower although representatives of LBP lending centers shared that post-validation is done to around 5% of the total projects. Monitoring can ensure the access of SFF to formal credit sources since it helps in the early detection of production issues and the potential misuse of borrowed funds, and in determining the time of harvest and collection. All of these can improve loan repayment and help the SFF build a good credit history. Monitoring also helps banks to evaluate defaults (whether willful or due to infestation/calamity).

Given LBP's limited manpower, an important area for improvement on government-funded lending programs is the strengthening of collaboration with other cooperatives and other stakeholders such as MFI and SFF associations. MFI and cooperatives have personnel that go to communities to organize people with financing needs and to assess their eligibilities. Thus, they can help in reaching out to coastal and rural communities with SFF that are more likely to experience credit rationing. They are also more capable of delivering personalized services and in conducting training on financial literacy and forum to discuss strategies specific to SFF projects. Account officers also conduct regular monitoring of the projects. Thus, they help in decreasing the probability of default.

The collateral-free policy of tie-up programs also presents the age-old moral hazard problem in SFF lending. Some stakeholders shared that lending partners should be allowed flexibility in requiring collaterals to ensure repayment. Others, however, shared that most SFF do not own any properties or movable assets that can be used as collaterals and that requiring one can only result in credit rationing.

The mandate to the LBP to prioritize retail lending may hamper its capacity to be a genuine development bank since lending to cooperatives, association, MFI, and rural banks through wholesale lending can be beneficial to the SFF and to the government as well. Retail lending has affected rural banks and cooperatives whose mandates include SFF lending. These entities could not compete with the low interest rate offered by the tie-up programs of the LBP with other government agencies. As a result, some rural banks no longer accept loans from new SFF clients as they diversify to bigger farmers to ensure institutional viability. Cooperatives, associations, MFI, and rural banks have advantages over the LBP in reaching out to a bigger number of SFF and in the monitoring and collection of payments. The latter appears critical since some LBP representatives shared that only around 20% of the SFF are able to repay loans. One downside of institutional lending, on the other hand, is that once a conduit defaults, all members (including its good-paying members) are no longer eligible for future loans.

However, ERCA-RCEF, a recent program that caters to institutional lending, has been put in place. Under this program, the interest rate for cooperatives is 0% provided that the effective pass-on rate to borrowers does not exceed 6%. While this provides opportunities to both big and small cooperatives to participate in government lending programs, LBP representatives shared that the latter needs training in fund and credit management.

While the LBP still extends wholesale lending as they continue to lend to cooperatives and associations, promoting SFF financing entails understanding the dynamics between wholesale and retail lending. This is critical in addressing the mismatch of timing in payments, which happens when the LBP lends to MFI and cooperatives that, in turn, extends loans to the SFF (retail lending). The bank expects wholesale borrowers to pay on a monthly or quarterly basis while MFI and cooperatives can collect payments only after harvest. Sugarcane farmers, for example, can only pay after 10 months while hog growers can only pay after 3-4 months.

There is a need for well-thought-out lending programs, ones that are designed with clear objectives and are implemented when critical requisites are in place. Government-funded lending programs should be crafted with specific targets and outcomes in mind. Cooperatives are important supply-side stakeholders and capacity-building in fund and risk management is critical especially for those that are recently established. Their critical roles notwithstanding, prudence in crafting programs designed to capacitate these cooperatives should be exercised. Requiring a collateral to safeguard against fund misuse is ideal. Small and young cooperatives should be able to establish good credit history and their credit worthiness within an acceptable period of time (e.g. 3-5 years). Moreover, young cooperatives can be supported through organizational and enterprise development and in linking them to the value chain. The same developmental mindset can be applied to individual borrowers or the SFFs with limited capacities. For example, a lending program that provides loans in small amounts (P5,000-P10,000) and at 0% interest rate in the short term (6 months to one year) can be implemented to establish a credit record. As their demand for credit increases, requiring collaterals other than real estate assets (e.g. harvest, other chattel mortgages) can be instituted for accountability.

Sikat Saka, a lending program of the LBP, is one program that benefitted from careful planning prior to implementation. This means that the manpower on the ground is in place to screen applicants prior to their endorsement for financing. This has helped in high repayment rates. *Sikat Saka* has started in 2013 and is still a program that delivers financing services to the SFF. Critical elements such as thorough screening, the readiness of borrowers (in terms of infrastructure, training, and technical know-how), and the availability of manpower or on-ground personnel to monitor projects are important for efficient and effective delivery of financing and related services. However, not all lending programs are well-thought-out as some are quickly implemented to get political leverage. These programs are implemented even though borrowers are not yet ready and the manpower complement are not yet in place. Strong presence of these critical elements will likely make lending programs to be successful.

There is a need to include training programs in the SFF loan packages. Training programs on financial literacy as part of loan packages can educate the SFF on the proper use of money and develop their skills in managing an agribusiness. Training programs that seek to reshape the SFF's attitudes towards government money can help to build the trust of formal lenders in the SFF's ability and intention to repay. Based on the experiences of some representatives of cooperative banks, most of their SFF clients who have availed of government-funded loans do not repay due to the mindset that government money is free. In part, this is validated by the LBP lending center representatives who shared that only around 20% of the SFF borrowers are able to repay loans and that there is really a need to rectify attitudes since one defaulting SFF can send the wrong signal to the entire SFF community. This sentiment is echoed by the representatives of cooperative rural banks who shared that they have difficulties collecting in succeeding loan cycles.

Cooperatives are critical in reaching out to the SFF in far-flung communities. However, cooperatives need training programs as well and this is especially true for newly-established entities since most of these are not yet skilled in fund management. In addition, a representative of the LBP shared that a sincere implementation of lending programs means that these organizations become lending partners not because of the pass-on rate but because of a genuine effort to deliver quality services to farmers and fisherfolk. Thus, training programs are also needed to instill this mindset to cooperatives.

Stakeholders have mixed responses to the use of technology in the agricultural sector. In some areas, technology is used by lenders to deliver allied services. An input merchant has set up a Facebook account where existing and potential clients can send queries any time of the day. The merchant also set up a financial portal that provides information about farm financing and a learning management system. This helps people to learn about doing business, which can help in facilitating their loans. A trader of hog inputs uses the radio every Sunday to create awareness on livelihood and to explain the trends and relevance of the swine industry in the economy. This radio program is streamed live in Facebook for wider reach. The LGU in some areas in Negros Occidental also uses Facebook to promote *Kadiwa* and is able to tap many food suppliers. Moreover, there are LBP branches that require all borrowers to have savings account in which the proceeds of the loans are credited. Payment of the loan can also be debited automatically, which eliminates the need for over-the-counter transactions and is useful in this time of pandemic. In Negros Occidental, the LBP has many branches that are accessible even to the coastal communities. A cooperative rural bank also started to introduce the use of technology to farmers through crediting loans to borrowers' ATM cards and the use of mobile banking such as GCash.

On the other hand, the lack of connectivity, infrastructure, and technological knowhow are serious impediments to the SFF's adoption of technology. The SFF and even credit supply-side stakeholders have shared that the use of technology for loan application is a challenge since most SFF need assistance in filling-out forms manually, more so digitally. Even some supply-side stakeholders still release the loan proceeds by issuing checks rather than through the ATM.

4.4.2 Production

Farmers and fisherfolk need to practice smart farming or right size farming in order to enhance the right productivity. Most often than not, the measure of successful farming is not in the bountiful harvest but in understanding the cost especially if funds are borrowed money. This means knowing the right amount of inputs that will generate the maximum profits. More important than the adoption of technology is correcting the mindset that producing more is better, which can present more challenges than solutions especially in cash crops production that can easily flood the market during harvest seasons. Farmers need to understand how much they should produce given the costs.

There are barriers to the SFF's adoption of new technology especially in remote areas. These include inadequate capital and the general lack of education and technical knowhow. Currently, educated farmers and those who can afford to invest in technology benefit the most from mechanization.

Monitoring is key to help the SFF overcome production and financing issues. Monitoring of projects can help in the early detection of problems, in determining if the money loaned is being used as intended, and in taking corrective actions. Thus, monitoring can reduce the probability of default, which positively impacts on the SFF's credit worthiness. Input traders recognize that farmers are critical in the sustainability of their businesses. Thus, they have technicians that regularly monitor the projects of borrowers. As a result, these informal lenders rarely experience default. Most cooperatives also have account officers responsible for project monitoring and payment collection.

Crop insurance is not enough to cover damages sustained due to natural calamities. Some fisherfolk, for example, shared that no coverage is given for partial damages and they can only claim if their boats are completely wrecked. Similar stories are shared by farmers when they were able to claim PhP 3500 for a 1-hectare banana plantation that was devastated by El Nino. There is also a lag in payment as some farmers shared that they filed claims in the first quarter of 2019 and the proceeds was only given early 2020. Others are discouraged from filing claims since the cost associated with follow-ups is higher than the indemnity they can collect. Damages to crops increase the probability of default and even though loans can be restructured by banks, low prices and other production and marketing risks can prevent the SFF to completely repay their loans.

There are other commodity-specific concerns as well.

- Hog-raising is input-intensive and missing the appropriate inputs can have serious implications in profitability. In the grow-out operation, where young pigs are raised, fattened and sold after 3-4 months, it is crucial to finance the appropriate hog diet in order to maximize profits.
- Due to the lower prices of corn during harvest season, there are corn farmers in Bukidnon who recently diversified into the banana-growing industry. However, banana-growing can be challenging due to pests and diseases that affect the quality of produce. Some respondents shared that there are cases when only around 60% of their harvest are absorbed by their buyers in Davao, with class A and B valued at PhP 30/kg and class C valued at PhP 20/kg. Rejected harvests are sold in a fruit stand while the rest is fed to the pigs. To prevent the infestation and the consequent low marketability of harvests from happening, growers need to spray insecticide 2-3 times a month. In addition, most landowners in Bukidnon have rented out their farms to multinational firms like Dole. Thus, there are very few help given to backyard banana growers.

4.4.3 Marketing

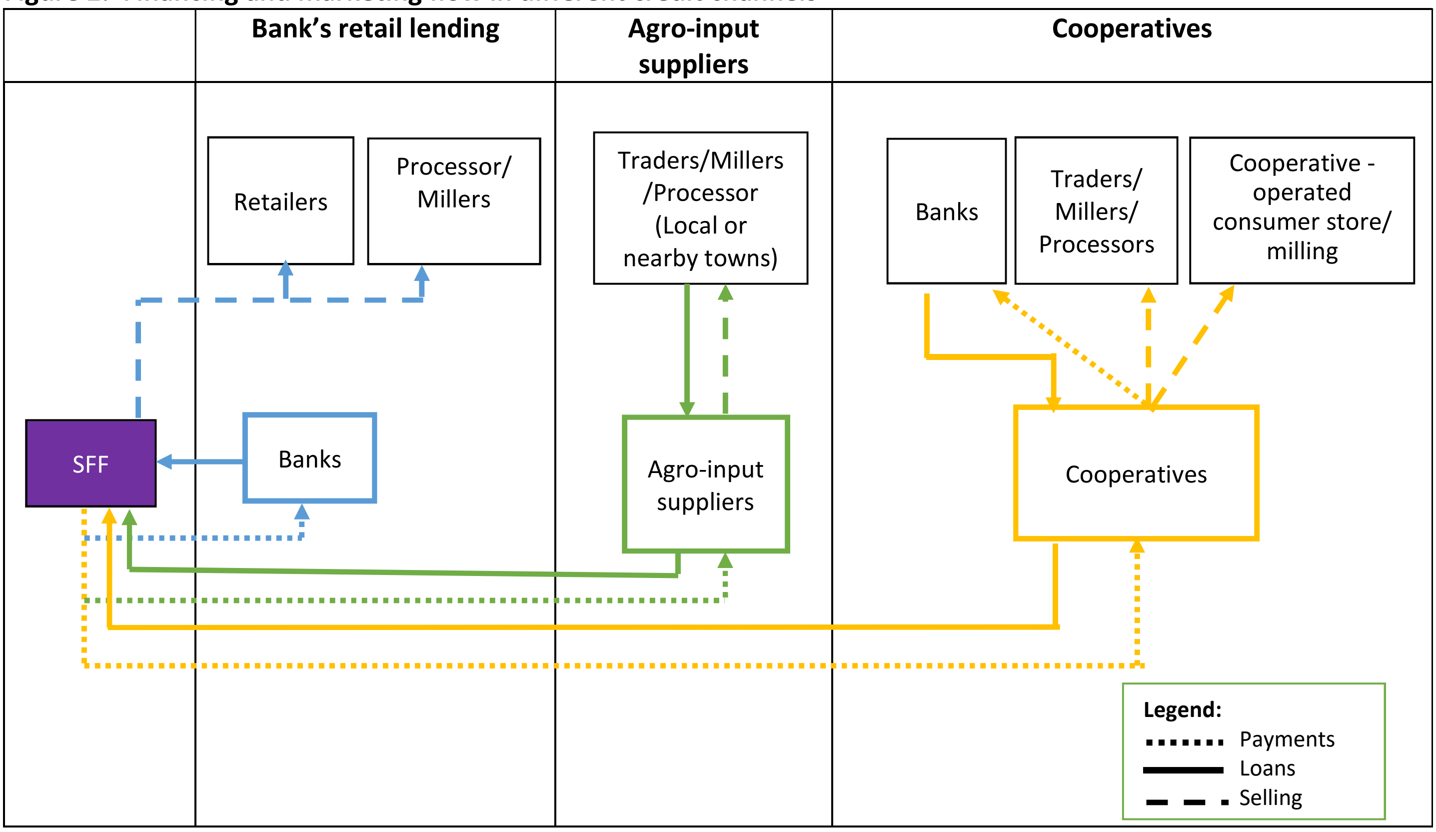
Inadequate markets and low prices have hounded the agricultural sector, more so, the SFF. This is the major concern articulated by stakeholders in the study sites. Crab gatherers in Negros Occidental shared that the crab industry has been doing well. However, due to the lockdown, the value chain of the industry, from production to marketing, has been disrupted. Crab gatherers are restricted in their movements and when they are able to do so, transport of the harvest to nearby markets are delayed. This results in the oversupply and low market price of crabs. Even without the pandemic, however, some SFF shared that low prices have been the major concern especially during harvest season. Since they deal with products that can go stale and they do not have the appropriate equipment to store their produce, they are forced to sell at low prices.

Lenders echo these stories as well. A representative of a multipurpose cooperative in Negros Occidental recognizes its capacity to finance production but acknowledges its limitation to look for markets especially during harvest season. Hog raisers shared that they cater only to local meat vendors and input traders and to prevent further losses, farmers, livestock raisers, and fisherfolk are forced to sell their produce at low prices, a scenario that can be prevented if there are readily available markets. This is also recognized by LBP representatives who shared that easy access and affordable lending programs are already in place although serious challenges remain in markets and low prices. The latter deepens as traders and merchants take advantage of the SFF's need to immediately sell their harvests. A representative of the LBP shared that traders and input merchants will buy *palay* at PhP 19/kg - PhP 25/kg, which once milled can fetch as high as PhP 50/kg.

4.4.4 Agricultural value chain financing (AVCF)

In the Philippines, the value chain involving the SFF in the study sites is still traditional and is generally characterized by many small and independent SFF that secure financing from financial institutions through tie-up programs with the government, from agro-input suppliers, and cooperatives/MFI (see figure 2)**.** In the retail lending channel, banks provide financing to the SFF prequalified by the funding agencies. There are several challenges in this channel. First, banks do not have adequate manpower to conduct regular monitoring of projects. Second, the SFF has no assured markets and are vulnerable to low prices due to the oversupply during harvest season. The issue of low prices is oftentimes exacerbated by traders/buyers who take advantage of the glut and the SFF's immediate need for money. Most often than not, the SFF ends up with little or no profit margin that affects their loan repayments.

Figure 2: Financing and marketing flow in different credit channels



There are channels in the study sites that exhibit internal AVCF. This includes trade financing that involves agro-input merchants who provide inputs to the SFF, take the harvests as repayment, and sell to partners or local retailers in nearby towns. This model is informal and unsupervised and trader-lenders can impose unfavorable prices either by raising interest rates on loans, raising selling price of inputs, or reducing the price for the produce (Llanto and Badiola 2010).

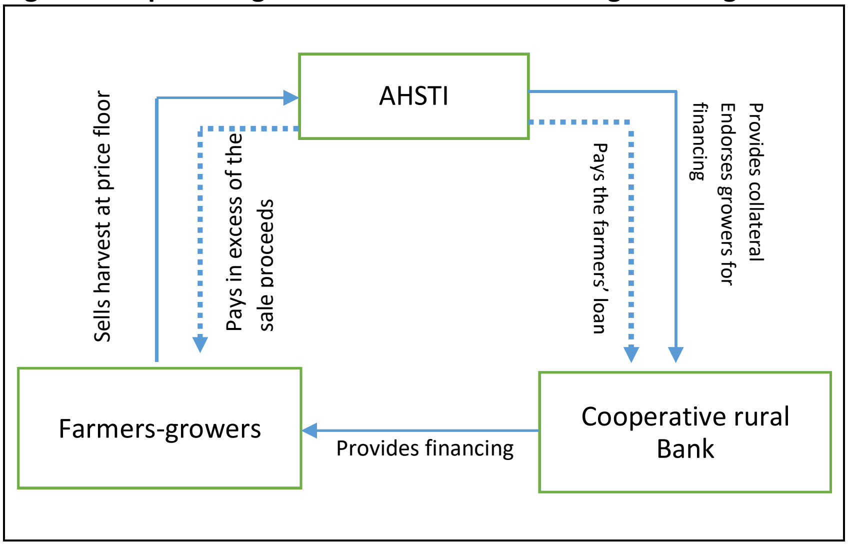
Cooperatives also provide SFF credit through government lending programs. While most cooperatives accept money as loan repayment, others have more organized approaches to financing and marketing. This is demonstrated by a multipurpose cooperative in Bukidnon that has regular buyers in Butuan and Cagayan for the vegetables produced by its members. Another big multipurpose cooperative in

Bukidnon has several businesses related to lending. It has a consumer store that sells inputs to its members. The cooperative also accepts *palay* payment to be milled in the cooperative's milling and later sold in its consumer stores. These indicate that players are aware of the SFF's role in the sustainability of their businesses and reveals opportunities that can be leveraged to develop an AVCF.

A tripartite arrangement among bank-institution-farmer is observed in Bukidnon, which can potentially be scaled up to address issues on marketing. However, there is a need to make this approach more inclusive. A cooperative rural bank in Bukidnon that directed its programs to big loans (at least PhP 500,000) has entered into an institutional arrangement with the Asian Hybrid Seed Technologies Inc. (AHSTI)[12]. In the arrangement, the cooperative bank lends to farmers-growers identified and endorsed by the AHSTI (figure 3). Farmers-growers are required to become an associate member of the cooperative rural bank before the loans are released. The AHSTI guarantees the loan by providing the collateral to the cooperative rural bank. It also supervises farmers-growers from planting to harvesting. In turn, farmers-growers sell the harvest to AHSTI at a guaranteed price. The harvest becomes certified commercial seed, which the government buys for distribution to farmers while the rest are sold to the local market as commercial seeds.

This is a promising approach that can solve the issues of inadequate markets and the concomitant low prices since this eliminates the middlemen by identifying institutional buyers that assure a price floor. However, only selected farmers-growers can participate in this AVCF since they are recommended by AHSTI. In turn, farmers-growers need to be an associate member of the cooperative rural bank. This means that farmers-growers who have poor credit history will not be able to participate in the value chain financing.

Figure 3: Tripartite agreement in Bukidnon: Bank-gurantor-growers



Other than the need for the AVCF to be inclusive, there is a need for setting-up links with institutions and ensuring that regulations and policies are in place and more importantly, the need for reshaping mindsets as well. The AVCF observed in the study areas are small-scale and cater to select group of SFF due to issues of timing in financing (in the case of agro-input suppliers) and to the institution/guarantor's careful selection of farmers-growers (in the case of the tripartite agreement in Bukidnon). In the case of the agro-input merchants, they provide inputs to the SFF and take the harvests as repayment after 3-4 months (in the case of hogs) and 10 months (in the case of sugarcane), which are sold to local retailers/partners in nearby towns. These partners require monthly payment for the inputs they supplied to the agro-input merchants. Links between actors in the value chain are also weak

[12] A100% Filipino-owned corporation located in Malaybalay City, Bukidnon that creates low-cost seeds of high yielding corn varieties customized to suit tropical agricultural conditions in the Philippines and other tropical and sub-tropical regions of the world (*https://ahsti.com.ph/*)

with the SFF producing and marketing independently of each other and with agro-input suppliers, most often than not, being connected only to informal credit sources.

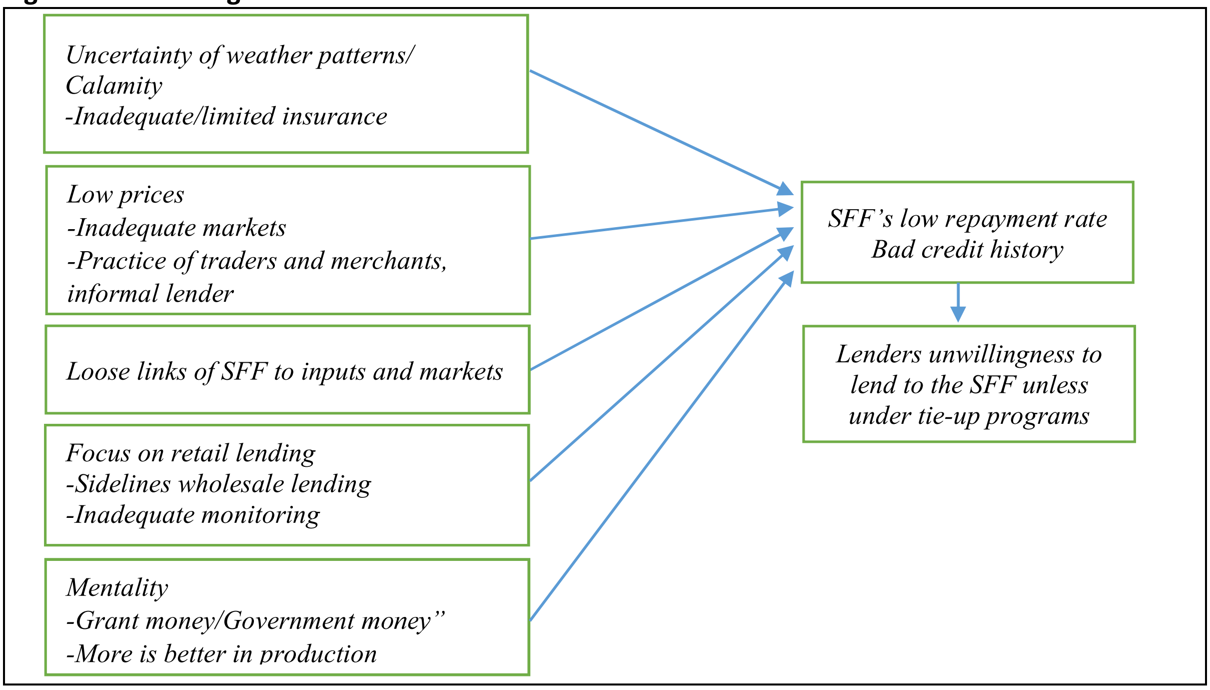
Currently, SFF loans are heavily subsidized by the government and the SFF are enjoined to form groups and associations to avail of benefits from government programs. The objectives of associations should go beyond availing benefits and should be oriented towards the improvement of the member's welfare through collective action towards value addition. There are also trust issues as farmers sometimes engage in side selling (e.g. reneging on commitments when farmers are offered higher prices).

5. Ways forward: From facilitator-driven AVCF to integrated AVCF

Notwithstanding the availability of easy access and affordable government lending programs, issues and challenges remain. While risks in agriculture can come from various sources, production risk and market risk are identified to be prevalent in the agricultural sector. Production risk is a risk that leads to the high variability in production due to the daily vagaries of weather and the occasional but destructive natural calamities or pestilence. Climate change, manifested by extreme and protracted drought or excessive rains resulting in floods, has also become a challenge in the agricultural sector in recent years. Market risk are risks associated with uncertainties in prices that agricultural commodities will fetch during harvest time. Planting of similar crops at the same time, which entails similar harvesting time, also contributes to the risks associated with lower market prices.

While these two risks have been the overarching concerns of all KII and FGD respondents, there are other attendant issues that contribute to the risks in agricultural finance (Figure 4). These include the limited insurance to cover damages sustained due to natural calamities and the unfavorable practices of traders and merchants. Moreover, the LBP's focus on retail lending, while it encourages competition in the SFF financing ecosystem that result in more service-oriented products, has presented challenges in project monitoring. There is also the issue of misplaced mindsets among the SFF that money from government lending programs is a grant (e.g. not to be repaid), a mindset that is partly reflected in the low repayment rates. In addition, there is also the "more is better" mentality among SFF, which equates successful farming to bountiful harvest. However, in the case of the SFF who have limited inputs to production, the appropriate mentality is to use the right amount of inputs to generate maximum profits.

Figure 4: Risks in agricultural finance



One potential approach to address these challenges involves the value chain financing in agriculture. A 'value chain' in agriculture identifies the set of actors and activities that bring a basic agricultural product from production to final consumption, which are connected through a vertical linkage or a network between various independent business organizations and can involve processing, packaging, storage, transport and distribution (FAO 2010). There are two types of agricultural value chains: traditional and modern. Players in the former often engage in spot market transactions, with little or no accumulation of relationships, trust, and information. Players in the latter engage with each other in coordinated and integrated manner.

Due to the increasingly fast-paced lifestyle that boosts the demand for processed foods and paves the way for more retail stores and supermarkets, agricultural value chain financing (AVCF) has become a major focus of agricultural development programs all over the world. AVCF is any or all of the financial services, products and support services flowing to and/or through a value chain to address the needs and constraints of those involved in that chain, be it a need to access finance, secure sales, procure products, reduce risk and/or improve efficiency within the chain (Miller and Jones, 2010). There are two types of AVCF: internal and external (see FAO (2010)). The former takes place in the value chain (e.g. an input supplier financing famers) and the latter is facilitated by the relationships in the value chain (e.g. a bank issues a loan to farmers because it is guaranteed by a player in the value chain).

There are different models of AVCF depending on who drives the value chain development: producer-driven, buyer-driven, facilitator-driven, and integrated (see Table 5). Producer-driven value chain models are driven by producer associations through the provision of finance, inputs, and technical assistance in order to access new markets and obtain higher prices. This model is driven from the bottom end of the chain and may face challenges since producers may not fully understand the needs of those in the topmost chain (Jones and Miller 2010). Buyer-driven value chain models are driven by exporters/processors and are demonstrated in contract farming and trade financing where buyers/traders commit to finance the production and producers/associations agree to sell their harvests to the buyers/traders. Facilitator-driven value chain is driven by donors such as the government or NGOs. An integrated value chain is most evolved as it connects all players, including the SFF, suppliers, processors/millers, wholesalers/retailers, cooperatives, and banks. It links actors through vertical integration (e.g. from producers and wholesalers up to the supermarkets). In this model, financing, information, inputs, and technical training flow from other players to the producers.

Table 5: Typical value chain models of smallholder production

Model	Driver of organization	Rationale
Producer-driven (Association)	• small-scale producers, especially when formed into groups such as associations or cooperatives; • large scales farmers.	• access new markets; • obtain higher market price • stabilize and secure market position
Buyer-driven	• processors; • exporters; • retailers; • traders, wholesalers and other traditional market actors	• assure supply; • increase supply volumes; • supply more discerning customers – meeting market niches and interests.
Facilitator-driven	• NGOs and other support agencies; • National and local governments.	• 'make markets work for the poor'; • regional and local development
Integrated	• lead firms; • supermarkets; • multi-nationals	• new and higher value markets; • low prices for good quality; • market monopolies.

Source: Miller and Jones (2010)

In the short-run, the facilitator-driven AVCF appears to be the most suitable approach that can integrate the SFF into the value chain, thereby, ensuring an inclusive AVCF. As the lead in the facilitator-driven AVCF, the government can replicate AVCFs that are already in place. The approach involving AHSTI, for example, can be replicated in other commodities and communities. A key challenge here, however, is to find players that would be willing to participate in the AVCF. In particular, the government needs to look for firms/buyers/institutions that will vouch for the SFF's loan application and to look for a financial institution willing to provide the loan.

Currently, many SFF are independent producers who likely lack the capacity to meet the volume and quality requirements of wholesalers and institutional buyers and have yet to fully appreciate the importance of technology and trust, among other things. Thus, the government can help in preparing the SFF towards a sustainable AVCF. While the development of AVCF is crop-specific, there are common elements that can be done especially in the case of a facilitator-driven AVCF in its infancy. The starting point of which is to perform a situation analysis to understand the market, the available players, and resources.

- Understanding the market includes the assessment of institutional buyers (e.g. What do they need? How many do they need? At what price are they willing to pay for these? How often do they need the delivery?).
- Understanding the players includes the assessment of available partners (e.g. How will agro-input suppliers be able to scale-up its lending facility? How can the LBP, cooperatives and MFI's participation evolve from lending to market facilitation?)
- Understanding resources involves the assessment of the SFF's readiness towards new approaches and technologies. (e.g. What approach will work in forming sustainable associations? What are the dynamics in the community that can present opportunities and challenges in the AVCF?)

Thus, it is imperative for the government, as it facilitates the replication and scaling up of successful but small-scale AVCFs, to look into the following key points (see table 6 for summary)**:**

- *The SFF need a collective voice.* While markets determine the price, big players have substantial influence as well. This idea can be leveraged for the SFF to tilt the market outcomes in their favor. Thus, it is important not only to organize the SFF into groups but to identify leaders as well. In the short-run, leaders should be able to manage individual harvests to prevent the oversupply during peak seasons and to help in mobilizing members to actively participate in government-led consultation, training, and capacity-building. Consultation with the SFF is critical in understanding feasible options given the existing human capital and physical resources. Consultation can also help in fostering a sense of ownership among the SFF, which can help the AVCF to be successful.

- *The SFF need training and capacity-building.* While some of the SFF are currently mobilizing towards forming groups/associations, the objectives of group formation should evolve towards improving access to financing and marketing and enhancing collective and individual welfare. Currently, groups/associations are being formed in order to avail of the government assistance. It is important that these groups/associations look beyond the assistance mentality and evolve towards the adoption of correct attitudes and mindset. In addition, there is a prevailing "government money" mentality associated with government lending programs, one that implies there is no need to repay since the fund comes from the government.

  These underscore the need to capacitate the SFF in technical knowhow, financial literacy, and production-related knowledge but more importantly in values formation that develop a strong sense of commitment. Training activities that introduce the use of technology and short-run and medium-run plans that can solve problems in marketing and other related issues can be included in the tie-up lending programs.

- *The SFF need to ease into the use of technology,* which is important in the flow of information in the value chain. Currently, there are obstacles to the SFF's adoption of technology in the payment systems or mobile banking. These include not only the lack of connectivity but the SFF's attitudes as well. Some SFF see no need to adopt these technologies since they borrow from community-based credit sources and payments are done via roving account officers or over-the-counter.

The use of technology takes some time getting used to. People become technologically adept through appropriate orientation and constant use. This is the approached used by a cooperative in Bukidnon, with at least 70% of its members being ATM cardholders. In addition, some branches of the LBP lending centers have required all SFF to open an ATM account and all transactions including loan release and repayment are done through the ATM facility. This is a practice that can gradually be adopted by the SFF financing ecosystem. Conduits and lending partners should help in the introduction of technology to the SFF through the introduction of mobile banking and electronic payment systems.

- *There is a need to develop a savings habit and improve on agricultural insurance program to enhance the credit access of SFF.* Uncertainties in agricultural production can be mitigated by savings and insurance programs. Banks and other financial institutions that lend to SFF should strengthen savings programs for SFF not only for lending purposes but to hedge against covariate shocks as well. On insurance, efforts to improve agricultural insurance in the country is being undertaken. A study by Reyes et al (2019) suggested several areas for improvement for the PCIC, which include the need to improve on the penetration rate, strengthen partnerships with the LGU, and target beneficiaries for the free insurance program. The latter can be improved through the development of better information system that will provide a more updated and complete listing and geotagging of agricultural producers and households in the country

- *Cooperatives should evolve from being conduits to one that facilitate markets.* Cooperatives have collective bargaining and marketing strategies that can help in linking the SFF with institutional buyers. Some cooperatives in Bukidnon have already used this approach as they accept harvests as payment, which they deliver to buyers in nearby towns. Despite this, the problem of low prices remains. Cooperatives that have direct buyers in nearby towns shared that they have to strike a balance on the price that they demand since some of their members opt to individually sell their harvests. This emphasizes the importance of groups/associations as they have the potential to sway market outcomes. The government lending programs should look into how its lending partners can strengthen their involvement into the AVCF.

- *The LBP should help in linking the SFF with their clients who are merchants/traders.* The LBP has successful lending programs such as the *Sikat Saka* that can potentially be a starting point of an AVCF. The LBP can help the SFF forge linkages with the bank's retail clients who are merchants and traders.

- *Agro-input suppliers should have strong links with financial institutions.* Some agro-input suppliers have already created an ecosystem of financing and marketing although currently small-scale due to financing issues. Despite issues on the timing and the availability of financing, there are some opportunities (e.g. some linkages have already been established) that can potentially be scaled-up. Agro-input suppliers are community-based and they can leverage their familiarity with borrowers and communities not only in monitoring but in risk management as well. Thus, strengthening the link of the agro-input suppliers to financial institutions has the potential to reach SFF communities with no access to credit and with limited connection to markets.

- *There is a need to improve information systems to properly record and analyze agriculture loans to be better informed on product designs, risk management strategies and innovations.* To do this, the establishment of credit information bureau for rural credit can be explored. No single organization has credit information on small farmers. The LBP provides wholesale loans to cooperatives and farmers' organization and does not have individual farmer data. The credit bureau can provide the risk profile of individual SFFs and agricultural borrowers. This will reduce transaction costs for agricultural credit and help financial institutions and government to develop programs that will complement the risk profile of SFF. With the establishment and operation of the Credit Information Corporation (CIC), the collection of credit information of small farmers will become feasible.

Table 6: Agricultural value chain financing: Current situation and potential developments

Current situation	Short-run to Medium-run objectives	Long-run objectives
Some evidence of value chain financing but are small-scale and are not inclusive.	***Develop a facilitator-driven AVCF***	***Strengthen AVCF through vertical integration***
Loans/credits:		
Heavily subsidized loans; Inadequate markets and low prices	SFF to receive loan packages but with concomitant capacity-building, reshaping attitudes and mindset, financial literacy, and	SFF to finance their agricultural production, to strengthen existing links and forge new links
Low repayment rate of SFF, SFF deemed not credit worthy	SFF to establish good credit history and credit worthiness	SFF deemed trustworthy; SFF well-integrated into the AVCF
Objective of groups/association:		
To avail of government assistance	To improve market outcomes and SFF's individual welfare	To integrate into the AVCF and sustain productivity and SFF's collective welfare
Risk-mitigating measures:		
Low financial and savings literacy	Strengthen savings program	
Inadequate coverage	Improve the penetration rate and coverage	
Production:		
Individual production	Collective production	Responsive/reliable production to guaranteed markets/institutional buyers
ICT:		
Some adoption in the supply-side; SFF not yet ready due to connectivity and attitudes	SFF to ease into the use of ATM; Financial institutions to upgrade payment systems and leverage mobile banking	Use of management information systems to link financing instruments with financial institutions; to monitor the movement of goods, download/repay loans, purchase inputs, and access information
Mentality:		
"Government money"	Market-orientation	Value addition
Infrastructure:		
No agency that collect/manage SFF credit profile/information	Establish a Credit Information Corporation (CIC)	
No storage facilities	Establish post-harvest facilities and processing hubs; Capacity building in commodity management	Establish warehouse receipt system
Slow connectivity; Some areas no ISPs	Invest in infrastructures to improve connectivity	Reliable nationwide connection at low cost

In the medium-run, infrastructures are needed.

- *There is a need to establish post-harvest facilities where crops may be stored while waiting for prices to become less disadvantageous to the SFF.* These facilities need competent people who are skilled in commodity management to ensure the security and quality of the inventory. To establish such facilities, the collaboration of both the public and private sector is critical in building capacity and putting up of regulations to ensure transparency in the operation and management of the facilities.

- *For perishable products, establishment of processing hubs in strategically located areas can be explored.* Post-harvest facilities work only for non-perishable commodities such as grains. For commodities that are perishable, the development of the agro-processing industry is a good strategy to adopt[13]. This is in line with the Department of Trade and Industry-Board of investment roadmap that outlines objectives and strategies for the agribusiness and fishery that aim to strengthen the agro-processing industry and to transform the Philippines as an agribusiness hub in the long-run. The DA can explore collaboration with the DTI in this regard.

- *There is a need to improve the speed and coverage of Internet connection.* As financial institutions introduce the use of electronic payment systems, reliable and low-cost connectivity is essential. Connectivity is an element that all stakeholders shared to be problematic. Indeed, based on the Department of ICT's 2019 National ICT and Household Survey, 82% of households have no Internet access. The high cost of Internet and of equipment to access the Internet are top reasons for not having access. Globe, the most common Internet Service Provider (ISP) for both urban and rural communities[14], is also the slowest with download speed of 6.44 Mbps (Globe Mobile) and 7.49 Mbps (Globe Telecom)[15]. In addition, 502 out of the 1604 barangays have no ISPs.

In the long-run, the facilitator-driven AVCF has to evolve into an integrated AVCF, one that is independent of government subsidies and one in which information and financing are flowing seamlessly across the chains.

- *Integrated AVCF needs to be vertically integrated with multinational firms/exporters/retailers/ wholesalers/processors as prime movers.* Institutional buyers, SFF associations, and even financial institutions are closely linked to facilitate the various aspect of the value chain. In the long-run, the SFF and their associations should be able to strengthen the linkages set out by the facilitator-driven AVCF and come up with innovative AVCF strategies to forge new linkages. Information systems that allow AVCF players to monitor the movement of goods, download/repay loans, purchase inputs, and access critical information should be in place. Information systems that link the data on financing instruments (such as warehouse receipts, discussed below) with financial institutions are also critical in reducing administrative costs associated with verification on the part of the lender and in reducing transaction costs to produce proof on the part of the borrower.

- *Further development of infrastructures that are interlinked to financing and marketing may be explored.* Services provided by post-harvest facilities for non-perishable commodities, for example, should evolve into warehouse receipt financing. A warehouse receipt system (WRS) is a system that provides both secure storage and access to credit for the value chain actor that 'owns' the inventory (Miller and Jones 2010). A producer, trader, or processor can store grain in a certified public or private warehouse, receive a receipt for the deposit, and use the stored commodity as collateral against a loan from a lending institution (Miller and Jones 2010). One

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[13] Agro-processing industry is part of the manufacturing sector that processes and transforms primary and intermediate products from agriculture, forestry, and fisheries into manufactured goods (FAO 1997). It uses various methods to process these agricultural inputs (e.g. smoking, preserving) (FAO 1997).

[14] *https://dict.gov.ph/ictstatistics/wp-content/uploads/2020/06/NICTHS-FINAL-REPORT-PRESENTATION_26-JUNE-2020.pdf*

[15] As of June 2020, Comclark is the fastest at 22.54 Mbps, Converge ICT Solutions at 21.37, Converge at 20.56, PLDT at 19.41, Sky Cable at 11.82, Smart Broadband at 9.6, and Eastern Telecoms Philippines at 9.08. *https://www.statista.com/statistics/1117074/philippines-fastest-internet-service-providers-by-download-speed/*

successful WRS is the National Bulk Handling Corporation (NBHC), a warehouse management company in India that provides not only a trading platform to all participants of the value chain but secure collateral management and a single-window and customized end-to-end solutions as well (Jones and Miller 2010). To guarantee the condition and security of stored goods at field warehouses, NBHC obtains regular audit and stock condition intelligence through an in-house team, conducts quality testing, administers security, and manages the health of the stored goods (Choudhary 2007).

In the Philippines, an enabling legal framework for the WRS is in place[16]. However, the Warehouse Stock Receipt issued by the NFA is not considered a negotiable instrument. The Quedan[17] and Rural Credit Guarantee Corporation (Quedancor), established in 1978, had been mandated to cover quedan financing and credit guarantee. However, Quedancor had suspended its lending operations to focus on guarantee due to other operational difficulties (Llanto and Badiola 2010). In June 28, 2017, Quedancor was abolished through the Memorandum Order Number 13 of the Office of the President on the grounds that there are other successful agricultural guarantee programs such as those offered by the Philippine Export-Import Agency, Small Business Corporation, and the LBP's Agricultural Guarantee Fund Pool.

WRS, if properly managed and regulated, can help in the AVCF since it guarantees credit and can stabilize prices. For WRS to become successful, there is a need to

A. put up and observe commodity grades and standards accepted within the trading community, ensure warehouses are well managed, receipts are recognized collateral, and that transparency exists throughout the system (Jones and Miller 2010).
B. conduct supporting research such as situation analysis/assessment. This includes a pilot test of the WRS in a suitable area in the country (Briones and Tolin 2016). Areas to be considered can be those that are top producers of grains (non-perishable) such as Nueva Ecija for rice and Isabela for corn.

6. Summary

Cognizant of the value and contribution as well of the challenges in the agricultural finance, the government has intensified its lending programs that are designed to help the agricultural sector, specifically, the smallholders. Thus, affordable and easy access retail lending has intensified in recent years. Despite these efforts, significant problems remain. These include the lack of markets and low prices, which have significant implications on the SFF's overall repayment capacity and credit rating. Indeed, these lending programs are unlikely to become successful if financing and production are not viewed in the bigger context of a value chain financing. While AVCF is specific to crops and may differ depending on the available players and resources in communities, the government can set-up the elements necessary for the development of an AVCF that is sustainable and independent of government subsidies in the long-run. This implies that government credit programs have to be strategic and targeted and should be designed not just to give access to credit but to capacitate the SFF, farmers' organizations and cooperatives towards the establishment of AVCFs. Banks and other financial institutions have the funds to supply credit to the agricultural sector and to the SFF. The reduction of uncertainties in small farm production is imperative for these funds to flow, however.

In the short-run, a facilitator-driven AVCF is recommended to pave the way for an inclusive AVCF. Several critical elements are highlighted. These include 1) the capacity-building and reshaping mindsets among the SFF and the key role of associations in mobilizing the SFF to actively participate in

[16] In the Philippines, there are enabling laws for warehousing and warehouse receipts, namely, the Bonded Warehouse Act of 1932 and the Warehouse Receipts Act of 1912 that covers all storable goods (Llanto and Badiola 2010). In addition, Briones and Tolin (2016, p. 8) wrote that "Specific rules and regulations for rice and corn were initially outlined in National Grains Authority Act of 1972 (Presidential Decree No. 4) and were expanded and developed through the Revised Rules and Regulation of the National Food Authority (NFA) on Grains Business of 2006."

[17] Spanish word that is translated as "warehouse financing"

government-led consultation and training, 2) the adoption of technology, 3) the improvement in risk-mitigating measures such as the development of savings habit among the SFF and the development of innovative agricultural insurance, 4) the strengthening of links between agro-input suppliers and financial institutions, 5) the participation of banks and conduits in forging SFF links with markets, and 6) the establishment of a credit information bureau for rural credit. In the medium-run, the government can focus on 1) the improvement in connectivity and 2) the establishment of physical infrastructures such as post-harvest facilities and processing hubs.

In the long-run, the facilitator-driven AVCF has to evolve into an integrated AVCF with SFF associations, and even financial institutions, being closely linked to facilitate the various activities of the value chain. The SFF and their associations should be able to strengthen the linkages set out by the facilitator-driven AVCF and to come up with innovative AVCF strategies to forge new linkages. Information systems should be in place to enable the linking of financing instruments with financial institutions and to facilitate seamless transactions between and among the chains.

Given that the value chain in the country is still traditional and it takes time to set-up the requisites of successful AVCFs (e.g. capacitating the SFF, associations, and small cooperatives; conduits to link the SFF with input and output markets; forging linkages with institutional buyers), the buyer-driven AVCF can be explored as a second-best alternative in the long-run. This AVCF is a scaled down version of the integrated AVCF in terms of markets although systems that facilitate the flow of information and the interlinking of financial instruments with financial institutions remain essential.

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Appendix 1: Profile of On-Going Agri-Credit Programs

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
DEPARTMENT OF AGRICULTURE-AGRICULTURAL CREDIT POLICY COUNCIL (DA- AACPC)															
1. Production Loan Easy Access (PLEA) Program	2017	ACPC	ACPC	Through Lending Conduits	Coops, Rural Banks, Coop Banks	To address the financial needs of marginal farmers and fisherfolk for fast, convenient and affordable credit for agrifishery production especially among those in poor and remote areas that are unserved by banks	Nationwide	Rice, corn, high value crops, livestock and poultry	MSFF registered under the Juan Magsasaka't Mangingisda National Database System or the Registry System for Basic Sectors in Agriculture (RSBSA).	Agricultural production	Rice, corn fisheries, livestock and poultry: **up to PHP 50,000** HVCC: **up to PHP 150,000** *Only one member of the household can avail of a loan at a time. Household member can be either the head, spouse or adult	Up to 2 to 10 years depending on the commodity or the activity the loan applicant is involved with.	None	6% per annum or 0.5% per month. Interest is not deducted in advance from the loan.	ACPC-Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392
2. Survival and Recovery (SURE) Assistance Program	2017	ACPC	ACPC	Through Lending Conduits	Coops, rural Banks, Coop Banks	To support the immediate rehabilitation of agricultural and livelihood activities of farmers and fishers in areas "Under State of Calamity" with considerable damage in agriculture due to natural calamities as determined by the DA and/or LGUs	Areas "Under State of Calamity" with considerable damage in agriculture due to natural calamities as determined by the DA and/or LGUs;	Rice, corn, high value crops, livestock and poultry	MSFF whose livelihood was affected by the calamity	Survival Assistance - for immediate and emergency needs of the affected borrowers Recovery Assistance to finance the requirements of rehabilitating his/her farming and/or fishing or livelihood activities Includes production inputs, repair of farm/fishery assets, and acquisition of livestock/work animals	Survival Assistance – P5,000.00 per borrower Recovery Assistance P20,000.00 per borrower	To be determined by the lending conduit depending on the gestation of the project financed and capacity of the borrower to repay the loan but not to exceed 3 years	None	Zero % interest	ACPC-Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
3. Capital Loan Easy Access	2019	ACPC	ACPC			To provide the required working capital for the marketing/trading and processing of agri-fishery products	Nationwide		Cooperatives/ Associations of MSFF - CDA/SEC/DO LE-BRW registered - 2 years in operation - No pending case or investigation against the organization, its Board and key officers - With management capable to implement the program - With established/firm market and existing facilities required for the project - Direct beneficiaries are MSFF	Finance working capital requirements of trading, marketing, processing of agri-fisheries products	Up to P5.0 million	Amortized based on cash flow up to 5 years	None	6% per annum based on diminishing balance	Charleston M. Dulay Contact No. (02) 636-3392

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
4. Agricultural and Fisheries Machineries and Equipment Loan Program	2019	ACPC	ACPC			Provision of financing for the acquisition of farm machineries and equipment to make farm operations more cost-effective by addressing labor intensity in land preparation, crop cultivation and maintenance, and minimize postharvest losses	Nationwide		Individual MSFF Organization borrowers (coops or associations of MSFF – CDA/SEC registered) - Must pass the following: - Good credit standing - No adverse finding (no derogatory record with DA/other agencies) - With sufficient coverage area - Viable business plan (can pay off the loan)	Finance acquisition of machinery, equipment and/or facilities from production, harvesting to post harvest • Standalone – one type of machinery • Combo package – set of machinery, equipment, facilities	Acquisition cost of machine/ equipment	None	Amortized based on cash flow up to 10 years	2% per annum	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
5. Sikat Saka Program	2012	ACPC	LBP	Through Irrigators Association		Provides financing for the palay production of small farmers through irrigator's associations (IAs), to (i) help the yet "unreached" palay and corn farmers access to timely, adequate, and affordable production credit; and (ii) improve the viability of agricultural production towards the attainment of food self- sufficiency	Nationwide	Rice and corn	- Small palay and corn farmers - Owners of 1-5 hectares of irrigated land - With a purchase order or market contract with NFA or other buyers - Have attended the Program briefing and any training/seminar on organizational	Finance palay and corn production	Based on farm budgetary plan but not to exceed: • Rice (per hectare) Inbred – P37,000 Hybrid – P42,000 • Corn (per hectare) Open pollinated – P28,000 Hybrid – P40,000	6 months	None	15% per annum for the first two loan cycles. Interest rate for the succeeding cycles is decreased by 1% per cycle for borrowers who fully pay their loans on time until the annual interest rate reaches the maximum discounted rate of 9%.	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392
6. Agrarian Production Credit Program (APCP)	2012	ACPC	ACPC, LBP and DAR	Through conduits	Coops, FAs	To provide credit assistance for agriculture and fisheries production, agri-enterprise, and/or livelihood projects to newly organized and existing ARBOs, POs, FOs other than ARBOs and other conduits that are generally not qualified under the regular credit programs of the bank	Nationwide except BARMM	Rice, corn, high value crops, fish pen	Coops, FAs, FOs, POs	To finance the requirements for Agriculture and Fisheries production such as, but not limited to, corn, sugarcane, coconut, cacao, coffee, livestock, poultry and fishery products and Agri- enterprise and livelihood projects such as, but not limited to, trading and processing of agricultural crops and commodities	*Total credit requirement of the eligible borrower based on the applicable loan ceiling of LANDBANK. For those with existing agriculture and fisheries production loan *up to 10% of the loan portfolio of the borrower. Without existing agriculture and fisheries production loan under the APCP, up to Php1 million per borrower	*For agriculture and fisheries production based on the cycle/cash flow of the project but not to exceed seven (7) years with grace period of up to three (3) years on the principal. *Semi-Annual/Annual Crops Plantation Crop - maximum of 7 years. *For Fixed Asset Acquisition - remaining economic useful life of the asset to be acquired, whichever is applicable, but not to exceed 5 years	*Assignment of the PNs underlying collaterals. *Assignment of insurance proceeds/ guarantee claims/ holdout on deposit (if any). *Chattel mortgage as object of financing (if any).	For Short term Loan 8.5% per annum; For Term Loan - 9.5% per annum	Nereo Tierra Contact No. 8926-1890

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
7. Expanded Survival and Recovery Assistance for Rice Farmers (SURE-Aid)	2019	ACPC	LBP			Provision of a one-time loan assistance to rice farmers whose incomes were affected by the drop in the farm gate prices of palay after the enactment of the Philippine Rice Tariffication Law (RTL)	Nationwide	Rice	- Rice farmers tilling 1.0 hectare and below, - listed in the RSBSA, and/or through DA identified service conduits, and - endorsed by the local government units (LGUs), and DA field regional	Immediate relief to rice farmers to regain their capacity to continue their rice production	PHP15,000 plus cost of Documentary Stamp Tax (DST)/Cash Card	8 years, inclusive of 6 months grace period	None	0%	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 8636-3392
8. BuyANIhan Program	2019	ACPC	LBP and DBP	Through LBP and DBP		BuyANIhan provides financing to cooperatives and associations with rice farmers as members to elevate direct engagement of cooperatives and associations in the rice industry value chain	Nationwide	Rice	Cooperatives/ associations with rice farmers as members, endorsed by DA-Regional Field Offices	Working capital for buying palay	Up to 100% of the maximum inventory level based on the warehouse/storage capacity	- Credit line – 3 years, with each drawdown payable based on cash conversion cycle - Term loan – 3 years, payable quarterly, semi-annually, annually	None	0%	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392
9. Survival and Recovery Assistance for Hog Raisers (SURE Hogs)	2019	ACPC	ACPC			Credit support to backyard hog raisers whose stocks were affected by the African Swine Fever (ASF)	ASF-Affected Areas	Swine	Backyard hog raisers identified by the DA-RFOs who are affected by the ASF, and registered	Finance other agriculture or fisheries livelihood	PHP3,000 per culled hog, or a maximum of PHP30,000 per borrower plus cost	Not to exceed 3 years	None	0%	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
10. Expanded Rice Credit Assistance-Rice Competitive-ness Enhancement Fund (ERCA-RCEF)	2019	ACPC	LBP and DBP			Provision of financial assistance to rice farmers, which aims to help increase productivity of rice farmers who were projected to have reduction or loss in farm income arising from the proposed tariffication. ERCA is allocated with the amount of PHP 1.0 billion, which is 10% of the Rice Competitiveness Enhancement Fund, as provided for in the RTL	Nationwide	Rice	Rice farmers and their cooperatives and associations	Individual farmer – purchase of farm inputs; acquisition of machinery and equipment, including mechanical dryer Cooperative/ association – purchase of farm inputs; working capital; acquisition of machinery and equipment, including mechanical dryer; establishment of facilities; relending/ rediscounting to small farmers listed	Direct lending – up to 90% of the total project cost based on the farm plan and budget On-lending – based on net borrowing capacity o Relending – up to 90% of the total budget cost Rediscounting – up to 90% of face value of the sub-PN or their outstanding balance in current status, whichever is lower	2 years loan line for palay production available via 180 days PN; roll-over may be allowed For acquisition of fixed asset/s, the term of the loan shall depend on the projected cash flow but no longer than the economic useful life of the fixed asset/s • For relending/rediscounting – based on the maturity of sub- borrower PN	None	Direct lending – 2% per annum On lending – 0% per annum, provided that the effective pass-on rate to end-borrowers shall not be more than 6% per annum	ACPC Program Development Division: Dir. Ma. Cristina G. Lopez Tel. No. 86363392
DEPARTMENT OF AGRICULTURE-BUREAU OF FISHERIES AND AQUATIC RESOURCES (DA-BFAR)															
11. BFAR- Land Bank Partnership for the Promotion and Development of Mariculture Park	Jul-05	BFAR	Trust Banking Group of the Land Bank of the Philippines (Guarantee Fund) Invest and reinvest the undisbursed/ unreleased portion of the Fund in government securities such as: Treasury notes Treasury bills Retail	1. Prioritized Mariculture Park locators/ investors 2. Provide financial assistance 3. Extend capability building support to the cooperative locators in the Mariculture Parks through the conduct of needed training for existing and	Countryside financial institution s (Rural Banks)	Expanded financial, technical and marketing assistance to the fisheries sector to improve production efficiency and optimize utilization of mariculture parks	Nationwide	-Seaweed, Milkfish, Grouper, Abalone, Pompano Rabbitfish and ancillary industries G20 -Application for Fund coverage of projects and activities not listed above shall be subject to evaluation by BFAR	Cooperatives LGUs Countryside Financial Institutions SMEs (Single Proprietorship, Partnership, Corporation) • NGOs including Associations and People's Organizations	Loan purpose is to finance fish production and related projects Fund coverage of projects and activities not listed above shall be subject to evaluation by the Fisheries Trust Secretariat for endorsement to and approval by the Fisheries Trust Fund Oversight Committee	Coops - up to 6 times of its net worth LGUs- based on the project cost but not more than the LGU's net borrowing capacity as determined by Land Bank CFIs- should not exceed its Net Borrowing Capacity NGOs- should not be more than the requirement of borrowers but not to exceed twice its	- Short Term Loan, One Year - Term Loan- within (6) months from the date approval	- Real Estate Mortgage - Chattel Mortgage - Assignment of subPNs and underlying collaterals (rediscounting) - Available credit enhancement instruments such as insurance, PCIC, PTMA and Credit	The applicable interest rate for all types of borrower shall be based on LANDBANKS' prevailing interest rates per type of borrower of the time of loan drawn down	Drusila Esther E. Bayate, Assistance Director for Technical Services, and Fisheries Trust Fund Oversight Committee Chairman

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
			Treasury Bonds 4. Bangko Sentral ng Pilipinas (BSP) Bills/Special Deposit Account and other instruments the repayment and servicing of which are guaranteed to the government	potential Banks client 4. Facilitate extension of market linkaging assistance to locator- Bank clients through the Banks Development Assistance Center							existing loanable funds (exclusive if borrowings) SMEs- based on Net Borrowing Capacity		Surety Fund as applicable		
DEPARTMENT OF AGRICULTURE-NATIONAL TOBACCO ADMINISTRATION(DA-NTA)															
12. Integrated Farming and Other Income Generating Activities Project-Tobacco Contract Growing System (IFOIGAP-TCGS)	2017-2018	NTA				• To increase farmers' productivity and profitability from tobacco production through the adoption of good agricultural practices; • Promote a market-oriented approach in tobacco production through the adoption of a contract growing scheme, to enhance participation of the private sector in production technology transfer, production assistance and leaf marketing	Region I (Ilocos Norte, Ilocos Sur, La Union, Pangasinan); CAR (Abra); Region II (Cagayan, Isabela)	Tobacco	Tobaco Farmers	For Cash Portion: - Cost of Seedlings, Land Preparation, Gas & Oil, & Fuelwood In Kind: Fertilizer, Pesticides, Fungicides, Suckercide (the NTA shall subsidize a portion of the amount allocated for farm inputs (fertilizer, Pesticides, Fungicides, Suckercide). This amount shall be in the form of subsidy and is not recoverable).	• Virginia: o Neutral Flavor: Php45,400/ hectare Improved Flavor: Php63,400/ hectare Burley o Neutral Flavor: Php55,600/ hectare o Improved Flavor: Php69,500/ hectare Native Batek: Php45,400/ hectare	One (1) year	None	For NTA Financed: The production assistance shall be subject to an interest charge of two percent (2%) per annum on the principal net of subsidy; a onetime service charge of one percent (1%) based on the total amount availed	NTA Corporate Planning Dept. Tel. 372-3185/82

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
13. Integrated Farming and Other Generating Activities Project (IFOIGAP-Rice, Wet Season 2017` under NTA Financing	2017	NTA				• To contribute to the attainment of food/rice self-sufficiency program of the Government/ Department of Agriculture • Increase the present level of productivity and income of the tobacco farmer	Region I - (Ilocos Norte, Ilocos Sur, La Union, Pangasinan); CAR (Abra); Region II (Cagayan, Isabela)	Rice	Tobacco Farmers	The "Cash Portion" shall be used for the Purchase of certified seed, gasoline and oil and hire tractor during land preparation while the "in kind" shall be in the form of fertilizers which shall be purchased by the NTA	Production Assistance will be based on the actual need of the FCs but shall not exceed Php20,000/ hectare	The FC shall pay the production and marketing assistance, administrative charges and service fees in full from the proceeds of the sale of palay.	None	Administra-tive charge of 2% per annum; service charge of one (1%), both of which are deducted from the proceeds of the sale of palay.	NTA Corporat e Planning Dept. Tel. 3723185/82
14. Curing Barn Assistance Project	FY 2017	NTA				• To promote the use of the NTA prescribed efficient curing barns/sheds particularly the use of Venturi and Anawang designs; To increase the income of tobacco farmers through the production of properly cured leaf; and To maximize the local tobacco farmer's share of the markets for domestic cigarette manufacturing, and for the growing exportation;	Region I - (Ilocos Norte, Ilocos Sur, La Union, Pangasinan); CAR (Abra); Region II (Cagayan, Isabela)		Tobacco Farmers	• For Repair (FCB / Semi-Permanent ACS) For construction (New FCB & Semi- Permanent ACS& New Semi-Permanent Collapsible ACS.	• Php20,000.00 per unit for Repair, provided that Php10,000.00 will be free; Php50,000.00 per unit for construction, Php 10,000.00 will be free. PhP 40,000.00 /farmer, Php10,000.00 will be free.	• For Repair (FCB /Semi Permanent ACS) Php10,000.00 will be payable to the NTA for a (2) year maximum term; For construction (New FCB & Semi-Permanent ACS Woodshed) Php 40,000.00 will be payable to the NTA for a four (4) year maximum term. For construction (New Semi- Permanent Collapsible ACS) Php 30,000.00 will be payable to the NTA for a three (3) maximum year	None	6% per annum; a one-time service charge of one (1%) on the principal; a penalty charged at a rate of three percent (3%) per month computed from the due date	NTA Corporate Planning Dept. Tel. 3723185/82

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
DEPARTMENT OF AGRICULTURE-SUGAR REGULATORY ADMINISTRATION (DA-SRA)															
15. LBPSRA Special Credit Program under the Sugarcane Industry Development Act (SCP-SIDA)	2018	SRA & LBP	SRA transfers fund to LBP as Program Fund. The program and Income Fund is managed by LBP based on the joint Memorandum Circular between LBP and SRA	Direct Lending by LBP Lending Centers to borrowers. SRA endorses loan applicants to LBP. Credit modality is provided on the Joint Memorandum Circular between LBP and SRA	LBP Lending Centers	Promote and support productivity Improvement programs to boost the production of sugarcane and increase the incomes of sugarcane farmers/planters and farm workers	Sugarcane producing regions and provinces	Sugarcane	Individual Farmers (10 has and below) Collective farms (30 has and below) 3. Block farms (At least 30 has) Common Service Centers	1. Sugarcane production 2. Asset acquisition for farm mechanization and hauling services 3. Equipment shed/garage/ motorpool construction 4. Working Capital	1. Up to 90% of the production cost (Sugarcane Production) based on standardized farm plan and budget 2. Up to 90% of the project cost and financing requirement (for other loan purpose)	Maximum of 18 months for production loan Based on cash flow/payback period (for other loan purpose) One year line available via Promissory Notes depending on cash cycle for Working Capital Loan	1. For product ion loans: assignment of sugar quedans (for borrower with sugar quedan) or assignment of sales proceeds of sugarcane (for borrower with no sugar quedan) 2. Any asset acceptable to bank (for other loan purpose)	2% per annum for sugarcane production loan 5% per annum for other loan purpose	From LBPPMD1: Mr. Edgardo de Guzman From SRA: Mr. Roberto C. Velasco, SCP-TWG; Head Alex John Galicia, SCP Secretariat - 8929-6137
LAND BANK OF THE PHILIPPINES															
16. Agricultural Competitive-ness Enhancement Fund (ACEF)		LBP	LBP	Direct Lending by LBP Lending Centers to borrowers.	LBP Lending Centers	The program aims to: • Provide necessary credit to farmers and fisherfolk and their cooperatives and associations and micro and small enterprises to increase their productivity; and • Establish an agricultural lending program that enhances competitiveness of target project beneficiaries or sectors especially the small farmers and fisherfolk	Nationwide		Individual farmers and fisherfolk Micro and Small Enterprises Farmers and Fisherfolk Cooperatives and associations Conduits	Livelihood/Agri-Enterprise Loans – To augment conduit funds for relending to ARBs/SFHs to finance their livelihood and agri-enterprises projects Providential Loans – to augment conduit's funds for relending to member ARBs/SFHs to finance their house or office repairs;	Livelihood/Agri-Enterprise Loans - Up to P1.0 Million per farmer/ fisherfolk Farmer and Fisherfolk coop/ association – Up to P5.0 Million per project per borrower		• Production Combination of the following: - PCIC insurance and/or AGFP guarantee coverage, if applicable; and Assignment of expected produce • Acquisition of fixed asset Any or	6% per annum	Programs Management Department I (PMD I) 5220000 loc. 7450,2992, 2804

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
													combination of the following: Chattel mortgage on object of financing Assignment of expected produce PCIC Insurance proceeds		
17. Sulong Saka		LBP	LBP			Aims to provide credit assistance to farmers cultivating high value crops such as banana, cacao, coffee, oil palm, rubber, vegetables, among others and for various qualified stakeholders to support their production, processing, marketing and other agribusiness projects	Nationwide	High value Crops	Individual Small Farm Holders Small and Medium Enterprises (SMEs) Cooperatives Farmers Associations/ Organizations Large Agribusiness Enterprises (LAEs)/ Corporation * Local government Units (LGUs) Non-Government Organizations (NGOs) Countryside Financial Institution (CFIs)	* Production of High Value Crops such as Vegetables (Highland, Lowland, Spices, Legumes); Fruits (Mango, Banana, Pineapple, Others); Industrial Crops (Abacca, Bamboo. Coffee, Cavao, Rubber, Oil Palm) and Alternative Food Staple Crops (Saba Cardaba, Soybean, Rootcrops) Establishment of Nursery, Budwood/ mother plant/ parent clone gardens New Plantation, Replanting, Rejuvenation, Rehabilitation of old trees	For Production Loan - standard project cost sharing of 80:20 (90:10 for small farmers) For Fixed Assets - not more than 80% of the acquisition/ construction cost For Commodity Loan - up to 85% of the market price of commodity at the time availment For LGUs - not more than the net borrowing capacity based on BLGF certification				

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
18. Agricultural Credit Support Project (ACSP)		LBP	*DA - Provides funds, technical and marketing support * DAR - Provides farm facilities and other support services * DENR - Provides other support services * LBP - Provides credit, manages fund and administer loans	Through LBP Lending Centers	LBP Lending Centers	ACSP offers loan funds toward increasing investments, creating new job opportunities, and improving agricultural productivity in the rural areas * The Department of Agriculture, Department of Agrarian Reform, Department of Environment and Natural Resources and Land Bank of the Philippines partnered to provide credit assistance to Agrarian Reform Beneficiaries (ARBs) through their respective organizations and support their on farm and off-farm activities whether individual or communal projects	Nationwide		Agrarian Reform Beneficiaries Organizations (ARBOs) Farmer Organizations (FOs) Peoples Organization (POs) Other Conduits such as Coops, Rural Banks and NGOs ARBs or their household members who are actual cultivators of the land and have no outstanding loan with any financing institutions for the same project/loan	* Crop production (short and long gestating crops) * Agri-enterprise * Livelihood projects (agri-related)	For Crop Production - Up to 80% of the total project cost For Agri-enterprise and Livelihood Projects: - For those with existing crop production loan, up to 10% of the loan portfolio of the borrower For those without existing crop production loan under ACPCP, up tp P1,000,000 per borrower	* Short Term Loan - not more than 1 year * Term Loans - more than 1 year but not to exceed 7 years inclusive of up to 3 years grace period			* For short term loans - 8.5% per annum * For term loans - 9.5% per annum

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
19. Sustainable Aquaculture Lending Program (SALP)/ Pagsa-sakang Pantubig		LBP	LBP	Through LBP Lending Centers	LBP Lending Centers	Sustainable Aquaculture Lending Program (SALP)/ Pagsasakang Pantubig strengthens the value chain of fishery, mariculture, aquaculture and supporting economic activities. It is anchored on the business relationship of institutional buyers or processing /canning companies, linked with small fishers, or micro, small and medium enterprises (MSMEs) which serve as their growers or suppliers	Nationwide	Aquaculture and Mariculture products	*Cooperatives/Fede rations *Associations/ Non- Government Organizations *Micro, Small and Medium Enterprises *Large Agribusiness Entities *Countryside Financial Institutions	*Purchase of inputs for Aquaculture/ Mariculture Production *Working Capital for Trading/Marketing operation *Fixed Assets Acquisition (fishing vessel/ banca and paraphernalia, fish cage, pump, aerator, High Density Poluethylene (HOPE) liner, generator, transport, machinery, equipment, etc.) and installation of other support facilities *Pond development and/ or improvement *Building construction (cold	Up to 80% of the total project cost		Any or combination of the following: *Real Estate Mortgage *Chattel Mortgage *Assignment Of Receivables/ Pos *Assignment of subPNs and underlying collaterals (Rediscounting) *Assignment of guarantee and/or insurance coverage		
20. Credit Assistance Program Program Beneficiaries Development	2006	LBP	LBP, DAR	Through conduits	Coops, FAs	Aims to continue the provision of credit assistance to existing CAPPED window III cooperative/FA borrowers	Nationwide except BARMM	Rice, corn, high value crops, fish pen	Coops, FAs	Working capital, Agriproduction, livestock & aquaculture, fixed asset acquisition	5M/conduit, 80% of the project cost	2 years or monthly, quarterly, semi-annually of lump sum	PNs, assignment of Invty, receivables, proceeds of marketing contract chattel mortgage, assignment of insurance guarantee claims	ST - 8.5% p.a., TL - 9.5% p.a.	Preciosa Osi - Contact No. 8926-1890

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
21. Assistance to Restore and install Sustain able Enterprise for Agrarian Reform Beneficiaries (ARISE -ARBs) & Small Farm	2018-2021	LBP	LBP, DAR	Through conduits	Coops, FAs	Aims to make available financing support to disaster affected women and men ARBs/SFHs and their families to restore livelihoods and farming activities	Area identified by PAGASA/N DR RMC that were affected by natural calamities	Repair of office and or house and restoration of agri- based enterprise	ARBs/SFHs and ARB cooperatives - FZ	Finance repair of office (ARBOs, Coops) and or house of ARBs and Livelihood and enterprise loan	1M/conduit	12 months	N/A	3%/annum	Preciosa Osi - Contact No. 8926-1890
22.Accessible Fund for Deliver y to Agrarian Reform Beneficiaries Program (AFFO RD- ARBS)	2019	LBP	LBP, DAR	Individual	N/A	To provide credit assistance to individual ARBs	Nationwide except BARMM	Rice, corn, high value crops, fish pen and small farm implements	Individual ARBs with EP or CLOA and Leaseholder	To finance the production of rice, corn, high value crops, fish pen and purchase of small farm implements	*For crop production-based on the credit needs of the farmer per farm plan and budget submitted, but not to exceed eighty (80%) of the total cost. * For acquisition of small farm implements - up to 80% of the acquisition cost	*For S.T.L. - up to 360 days, P.N. Payable in lump sum or based on crop cycle *For T.L. - more than one year up to five (5) years, based on crop cycle or project cash flow and/or economic useful life of fixed asset to be financed, payable quarterly, annually	*AGFP coverage with corresponding premium to be borne by the farmer-borrower and to be deducted from the loan proceeds *Assignment of PCIC insurance claims on crop damage *Assignment of Produce and Receivables *Credit life insurance (optional) *Chattel mortgage	Fixed at 5% per annum	Ricardo Reyes - No. 8926-1890

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
DEVELOPMENT BANK OF THE PHILIPPINES															
23. Sustainable Agribusiness Financing Program		DBP	DBP			The SAFP is a credit assistance program for agribusiness projects engaged in the production, harvesting, processing, and marketing of crops, poultry, livestock, and fishery.			Wholesale: (with at least one (1) year profitable operation) Banks – Commercial Banks; Thrift Banks; Rural Banks; Cooperative Banks; and Microfinance Institutions Non-Banks – Non- Government Organizations (NGO); Irrigators' Associations (IA); SEC registered Financing Companies; Cooperatives; Farmer/Fisherfolk Associations; other types of assoc./org. duly registered with the corresponding government	All agri-business projects including but not limited to the traditional crops, high value crops, organic crops – from production, post-harvest, processing to marketing or the whole value chain; Poultry, livestock, fishery including cattle/goat dairy production, cattle breeding cum fattening, swine production, goat raising, fish production and harvest, processing to marketing of meat and other food production projects; • Investment Feed stocking ubiol	Loan amount shall be up to maximum of 90% of the total project cost (TPC) For Domestic Packing Credit, up to 80% value of PO			Prevailing market rate • Term Loan –shall be based on the project cycle and projected cash flow as determined by DBP but not to exceed ten (10) years, inclusive of grace period. Progress and/or balloon payment on principal and interest may be allowed. • Credit Line – shall be based on the approved tenor/client's cash conversion cycle but not more than 360 days.	Rallen O. Verdadero Head, Program Development Management II 812-8088/ 818-9511 loc.3327

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
24. Sustainable Agribusiness Financing Program for the Dairy Industry (SAFP DAIRY)		DBP	DBP			This is a subprogram under the SAFP specifically, to assist the National Dairy Authority (NDA) attain its roadmap's main objective which is to gain significant level in Ready to Drink (RTD) Milk market.			Wholesale: (with at least one (1) year profitable operation) Banks – Commercial Banks; Thrift Banks; Rural Banks; Cooperative Banks; and Microfinance Institutions Non-Banks – Non-Government Organizations (NGO); Federations; SEC registered Financing Companies; Dairy Cooperatives; Farmer Associations; other types of dairy assoc./org. duly registered with the corresponding government agencies	Stock acquisition Breeding Growing/rearing Buildings and improvements Milking/ processing machinery, equipment & tools fabrication and maintenance Milk production and processing Milk distribution and dealerships Feed production/ milling /mixing Forage production Loan refinancing • Other dairy- related enterprises PO financing • Working capital Land (project site)	Loan amount shall be up to maximum of 80% of the total project cost (TPC) For Domestic Packing Credit, up to 80% value of PO	• Term Loan – shall be based on the project cycle and projected cash flow as determined by DBP but not to exceed ten (10) years, inclusive of grace period. Progress and/or balloon payment on principal and interest may be allowed. • Credit Line – shall be based on the approved tenor/client's cash conversion cycle but not more than 360 days. • Domestic Packing Credit – shall not exceed the expiry date of the PO.		• Prevailing market rate	Rallen O. Verdadero Head, Program Development Management II 812-8088/ 818-9511 loc.3327

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
25. Broiler Contract Growing Program (BCGP)		DBP	DBP			A sub program under the Sustainable Agribusiness Financing Program, it is designed to encourage contract growers to expand their business by facilitating the financing of poultry broiler contract growing projects through shortened loan processing. It likewise aims to finance the promotion of agribusiness for countryside development while responding to the food requirements of the country			Poultry broiler contract growers who are registered with Securities and Exchange Commission, Department of Trade and Industry, Department of Labor and Employment, or Cooperative Development Authority Engaged in poultry broiler contract growing projects that will not pose risk to health, national security and the environment Holder of a letter of approval/ contract growing agreement with a legitimate integrator	*Farm development *Farm acquisition *Farm expansion/ rehabilitation	Loan amount shall be up to maximum of 80% of the Total Project Cost	Maximum of 10 years		Maximum of 10 years	Project Managers Program Development and Management II 812-8088

Name of Program	Year Started	Lead Overseer	Fund Manage-ment Scheme	Credit Delivery Modality	Conduit/s	Major Objectives	Area Coverage	Type of Commodity Financed	Eligible Borrowers	Eligible Loan Purpose	Amount of Loan Ceiling (PhP)	Loan Maturity	Collateral Require-ments	Interest Rate (p.a.)	Contact Person and Contact Number
26. Tree Plantation Financing Program		DBP	DBP			A credit assistance program for the expansion, harvesting, maintenance and protection of existing tree plantations with at least 4-year old standing trees in at least 1% of the plantation area of qualified private and public land.		Wood trees	*Industrial tree plantation companies *Wood producers *Integrated Forest Management Agreement holders- members or accredited by the Philippine Wood Producers Association *Socialized Integrated Forest Management Agreement (SIFMA) holders *Private landowners *LGUs *Private schools *People/s Organization/ Cooperatives	*Expansion of tree plantation: - Acquisition and planting of major tree planting stocks Site development - Maintenance and operating expenses for the expansion of plantation - Lookout tower - Bunkhouse - Water system - Fire lines *Existing tree plantation of at least 4-year old tree species: - Maintenance and protection expenses *Harvesting of fruits of mature tree species *Processing and Post-harvest facilities					

Source of Table: Compiled by Agricultural Credit Policy Council

Appendix 2: FGD Guide Questions for the SFF

The Agricultural Credit Policy Council (ACPC) commissioned the Philippine Institute for Development Studies (PIDS), a policy think tank attached to the National Economic and Development Authority, to analyze the credit demand of the small farmers and fisherfolk (SFF). In addition, the study aims to shed light on the issues and challenges in the SFF credit in order to recommend policies that can enhance their demand for agricultural credit.

Individual responses provided during the interview will be kept confidential. Only consolidated responses by resource persons will be presented in the study's final report.

Credit rationing

1. Have you ever applied for a loan from banks? Why or why not?
2. For those who applied for a loan from banks:
   a. What is the purpose of the loan?
   b. Can you discuss the process, including the requirements, fees, timelines, loan terms, of your loan application?
   c. Can you discuss the details of loan repayment (e.g. schedules, amount of amortization)?
3. Was there a time when you were rejected from your credit application to banks? What were the reasons for the rejection?
4. Have you ever availed credit from sources other than banks? What are these sources?
   a. Why did you avail credit from these sources?
   b. Can you discuss the process, including the requirements, of your loan application?
   c. Can you discuss the details of loan repayment (e.g. schedules, amount of amortization, mode of payment)?

Risks, coping, and mitigation

1. What are the challenges/obstacles/issues that you face in terms of finance, production, selling/marketing?
2. How do you cope with these challenges/obstacles/issues?
3. How do you think can the government help the SFF
   a. mitigate the risks associated with weather shocks, climate change, and natural calamities?
   b. mitigate other risks such as low market prices?
4. To what extent do you depend on social networks and informal risk-sharing/risk-reducing mechanisms for support?
   a. Are there self-help groups, farmers' organizations or social networks in the community in which you live in?
   b. Are you a member of any of these groups? What are the benefits offered by these groups?

Programs

1. Are there government or LGU-initiated programs that are designed to help the SFF? Have you availed any of these programs? Why or why not?
2. Other than those already provided for by the LGU/government, are there other programs that you think should be in place to help the SFF?

Appendix 3: KII Guide Questions for representatives of financial institutions (rural banks, commercial banks, microfinance institutions)

The Agricultural Credit Policy Council (ACPC) commissioned the Philippine Institute for Development Studies (PIDS), a policy think tank attached to the National Economic and Development Authority, to analyze the credit demand of the small farmers and fisherfolk (SFF). In addition, the study aims to shed light on the issues and challenges the in SFF credit in order to recommend policies that can enhance their demand for agricultural credit. *Individual responses provided during the interview will be kept confidential. Only consolidated responses by resource persons will be presented in the study's final report.*

Credit rationing

1. Who are your clients?
2. Can you discuss the process, including the requirements, of a typical bank loan application?
3. Was there a time when an SFF applied for a loan and was denied? Why?
4. Was there a time when an SFF applied for a loan and was approved? Why?
   a. Can you discuss the process, including the requirements, a loan application extended to the SFF?
   b. Can you discuss the details pertinent to the loan (e.g. schedules, amount of amortization, collateral, collateral substitutes)?
5. Why do you think the SFF turn to informal sources for loans?

Programs

1. Do you lend to traders, self-help groups, or cooperatives, that in turn lend to the SFF? Can you describe the nature of transactions between the bank and these groups?
2. Are you aware of government or LGU-initiated programs that are designed to help the SFF?
3. Other than those already provided for by the LGU/government, are there other programs that you think should be in place to help the SFF access the formal financial sources?
4. How do you think information, communication, and technology can help the SFF access the formal financial sources?

Appendix 4: FGD Guide Questions for representatives of a) CSOs, NGOs, self-help groups, and SFF associations or cooperatives *and* b) other informal credit sources (traders, warehouse owners, landlords, money lenders)

The Agricultural Credit Policy Council (ACPC) commissioned the Philippine Institute for Development Studies (PIDS), a policy think tank attached to the National Economic and Development Authority, to analyze the credit demand of the small farmers and fisherfolk (SFF). In addition, the study aims to shed light on the issues and challenges in the SFF credit in order to recommend policies that can enhance their demand for agricultural credit. *Individual responses provided during the interview will be kept confidential. Only consolidated responses by resource persons will be presented in the study's final report.*

Credit rationing

1. Where do you get the funds that you use to extend loans?
2. Have you experienced borrowing from banks and other financial institutions?
   a. Can you discuss the process, including requirements, fees, timelines and loan terms?
   b. Can you discuss your experience when you applied for a loan but was denied? Why?
   c. Can you discuss your experience when you applied for a loan and was approved? Why?
3. Who are your clients?
4. Can you discuss the process, including the requirements, of a typical loan application to the SFF?
5. Was there a time when an SFF applied for a loan from you/your organization and was denied? Why?
6. Was there a time when an SFF applied for a loan from you/your organization and was approved? Why?
   a. Can you discuss the process, including the requirements, of a loan application extended to the SFF?
   b. Can you discuss the details pertinent to the loan (e.g. schedules, amount of amortization, collateral, collateral substitutes)?
   c. How do you ensure the repayment of loans? What happens in case of default?
   d. Do you require a guarantor? Do you require the SFF to sell all their harvest to you?
7. Why do you think the SFF turn to informal sources for loans?
8. Do you borrow from banks and in turn lend to the SFF? How do you earn profits from the borrowing-then-lending approach?
9. Other than as lenders, are there any functions that you or your group perform in order to help SFF?

Programs

1. Are you aware of government or LGU-initiated programs that are designed to help the SFF?
2. Other than those already provided for by the LGU/government, are there other programs that you think should be in place to help the SFF access the formal financial sources?
3. How do you think ICT can help the SFF access the formal financial sources?
4. How do you think ICT can help you improve your services to the SFF?

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DEPARTMENT OF AGRICULTURE
ACPC