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ROTTERDAM SCHOOL OF MANAGEMENT  
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University of the Philippines  
CENTER FOR INTEGRATIVE  
AND DEVELOPMENT STUDIES

# Breaking barriers in agriculture financing:

Enhancing the inclusiveness and sustainability  
of agriculture value chains

*Jane Lynn D. Capacio, Emmanuel S. De Dios, Ph.D., and Rob van Tulder, Ph.D.*



## **EMIT C4C Discussion Paper**

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*27 July 2018*

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## List of Abbreviations

ACPC	Agriculture Credit Policy Council
AED	Agro-enterprise development
AFMA	Agriculture and Fisheries Modernization Act
AGFP	Agriculture Guarantee Fund Pool
AMCFP	Agricultural/Agro-Industry Modernization Credit and Financing Program
APCP	Agrarian Production Credit Program
APPC	Asia-Pacific Policy Center
ARBs	Agrarian reform beneficiaries
ARC	Agrarian Reform Community
ASKI	Alalay sa Kaunlaran, Inc. (microfinance institution)
BCDI	Bicol Consortium for Development Initiatives
BDC	Business Development Center (a department of Lamac MPC)
BECs	Basic Ecclesial Communities
BPI	Bank of the Philippine Islands
BSP	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)
C4C	Chains for Change
CACAO	Credit Assistance for Cacao Agribusiness and Other Organization Program
CAF	Census of Agriculture and Fisheries
CALABARZON	Cavite, Laguna, Batangas, Rizal, and Quezon (provinces comprising Region IV-A of the Philippines)
CALF	Comprehensive Agricultural Loan Fund
CAP-PBD	Credit Assistance Program for Program Beneficiaries Development
CARP	Comprehensive Agrarian Reform Program
CBCP	Catholic Bishops Conference of the Philippines
CDL	Caritas Diocese of Libmanan
CLRP	Citizen-Responsive Leadership Program
CRS	Catholic Relief Services, an international relief and development agency of the United States Conference of Catholic Bishops

CSOs	Civil Society Organizations
CSPs	Cross-sector partnerships
CSR	Corporate Social Responsibility
CSSP	Cross-Sector Societal Partnership
DA	Department of Agriculture
DA RFU V	Department of Agriculture Bicol (Region V) Regional Field Unit
DAR	Department of Agrarian Reform
DARCO	DAR Central Office
DCPs	Direct credit programs
DDLFP	Direct DAR-Lending Financing Program
DOLE	Department of Labor and Employment
DPWH	Department of Public Works and Highways
DRDAP	Dutch Rural Development Assistance Program
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EMIT	Escaping the Middle-Income Trap
FEP	Farmer Entrepreneurship Program
FGD	Focus Group Discussion
FSCP	Food Supply Chain Program
GAP	Good agricultural practices
GM	General Manager
GMO	Genetically Modified Organism
Ha	Hectare
IAVCC	Inclusive Agriculture Value Chain Consortium
ICMs	Informal credit markets
IRA	Internal Revenue Allotments
JFC	Jollibee Foods Corporation
JGF	Jollibee Group Foundation

KALASAG	Kaliwanagan and San Agustin (a smallholders' group, combination of two barangays in San Jose City)
KAWAYAN	Kalikasang Kabuhayan para sa Wastong Pamayanan
Kg	Kilogram
LANDBANK	Land Bank of the Philippines
LeAD	Leadership on Agro-enterprise Development
LGC	Local Government Code
LGU	Local Government Unit
LIBRATE	Libmanan for Reform, Accountability, Transparency and Empowerment of People
MCPI	Microfinance Council of the Philippines, Inc.
MFI(s)	Microfinance Institution(s)
MICOOP	Microfinance Innovations in Cooperatives
MPC	Multi-Purpose Cooperative (of Lamac)
MT	Metric tons
NABCOR	National Agribusiness Corporation
NASSA	National Secretariat for Social Action
NATCCO	National Confederation of Cooperatives
NFA	National Food Authority
NGO	Non-Government Organization
NLDC	National Livelihood and Development Corporation
NOAB	National Organic Agriculture Board
OECF	Overseas Economic Cooperation Fund (of Japan)
PBSP	Philippine Business for Social Progress
PCIC	Philippine Crop Insurance Corporation
PEF	Peace and Equity Foundation
PIDS	Philippine Institute for Development Studies
PLDFI	Prelature of Libmanan Development Foundation, Inc.
PO	People's Organization
PPP	Private-Public Partnership



PPSA	Philippines Partnership for Sustainable Agriculture (of Grow Asia)
PrC	Partnerships Resource Centre (of the Rotterdam School of Management)
PSA	Philippine Statistics Authority
QR	Quantitative Restrictions
RA	Republic Act
RPC	Rice Processing Center
RSBSA	Registry System for Basic Sectors in Agriculture
RSM	Rotterdam School of Management (Erasmus University, Netherlands)
SaPaDaPa	Samahan ng mga Pari sa Daang Bakal
SDGs	Sustainable Development Goals
SEC	Securities and Exchange Commission
SEDP	Simbag sa Pag-Asenso Inc.
SGV	Sycip, Gorres and Velayo (accounting firm)
SKK	Saradit na Kristiyanong Komunidad
SWG	Site Working Group
TWG	Technical Working Group
UP	University of the Philippines
VC	Value Chain

## Executive Summary

Despite the smallholders' need for agriculture financing, the Agriculture Credit Policy Council (ACPC) estimates a credit gap of Php 366.6 billion in 2014. This pertains to the variance between the credit requirements of the priority commodities of the Department of Agriculture in 2014 and the financing supplied by banks in the same year. This gap includes the credit needs of smallholders who find it difficult to borrow from financial service providers because of challenges like high transaction cost, lack of credit history, lack of acceptable collateral, perception of being high risk, and lack of infrastructure for loan assessment, disbursement, and collection. The gap persists in spite of the Agri Agra Law that penalizes banks for not lending 25% of their loan portfolio to farmers and agrarian reform beneficiaries.

The limited or lack of financing is part of the wickedness of problems in agriculture. "Wicked problems" are systemic, interrelated, and multidimensional and they create institutional voids or the lack of institutions that can facilitate market transactions (Khanna and Palepu, 1997). In other words, the formal and informal rules of the game are not enough or are incapable of solving wicked problems.

Throughout many decades, efforts have been made to solve the wicked problem of smallholders having limited or lack of access to formal credit. Direct credit programs have been implemented by Philippine government administrations to provide direct and subsidized credit to smallholders. Direct credit schemes, for instance, were included in productivity programs like Masagana 99 and Masaganang Maisan. Studies noted that this was the dominant approach because markets were perceived as "not well-behaved."

The direct credit approach was discredited. Around the world, government lending programs were challenged because of their failure to reach smallholders and their benefits were short-lived. Credit programs were removed from government agencies and there were deliberate attempts to shift to market-based financing models. In the literature, the seminal work of McKinnon and Shaw argued for the elimination of financial repression or the control of interest rates and extension of subsidies to financial institutions. In the Philippines, the policies shifted from direct credit provision to market-based policies including the passage of the Agriculture and Fisheries Modernization Act and the National Strategy for Microfinance.

Despite the policy shift, banks, particularly commercial banks, still find it difficult to lend to smallholders and comply with the Agri Agra Law requirements. The market-based approach considers the demand and supply sides of credit and studies have shown that barriers prevail on both sides resulting in a mismatch between the two.

The models that were studied in this paper, Jollibee Group Foundation's (JGF) Farmer Entrepreneurship Program (FEP) and the SKK Rice Processing Center (SKK RPC), used **interlinked contracts** characteristic of informal trader-lender relations. The smallholders source their production loans from cooperatives or microfinance institutions with the understanding that they will repay the loans by delivering a majority of their harvest to the off-takers (i.e. SKK RPC) or to their cooperatives (i.e. Lamac Multipurpose Cooperative and Kalasag Farmers Producers Cooperative) which, in turn, will deliver to major buyers (e.g. Jollibee Foods Corporation). The interlinked contracts perform the function of **collateral substitutes** in screening borrowers and

enforcing repayment. Like the tied-in contracts of trader-lenders, the smallholders' incentive to repay in-kind is high because the price of products is volatile and they are risk averse.

While the models adopt the basics of trader-lender arrangements, the FEP and the SKK RPC improved the interlinked contracts through formal and informal mechanisms. These mechanisms enhanced the inclusiveness and sustainability of value chains.

In the JGF FEP model, the pre-commitment of production output with the Jollibee Foods Corporation or JFC led to contracting arrangements.<sup>1</sup> Particular to the model involving the Kalasag Farmers, which was part of the pilot batch of FEP in 2008, the "contract" with JFC (and other buyers) combined with the bridging role of the Jollibee Group Foundation, and the presence and commitment of the Catholic Relief Services, National Livelihood Development Corporation, the Local Government of San Jose City and other stakeholders signaled the seriousness of the program. The efforts of these partners, and along with it their contributions to social investment costs, incentivized the Alalay sa Kaunlaran, Inc. (ASKI), an MFI, to lend to the newly-formed Kalasag Farmers Producers Cooperative. This is in spite of Kalasag not having track record and acceptable collateral at that time. ASKI was aware of the feasibility of the interlinked transaction and the commitment and costs shared by the partners and this made them "pray for" a good result and take on the risk.

A few years ago, the SKK Farmers Corporation engaged in interlinked contracts with farmers. However, except for one parish/barangay where there was 100 percent repayment, there was poor repayment rate of the majority of the farmers. The assessment was this was due not to the interlinked model but to the lack of readiness and capacity of the organization to engage in production financing. There was also no incentive of higher buying price of *palay* being offered by the SKK RPC. At present, Simbag sa Pag-asenso (SEDP), the microfinance partner of the SKK Farmers Corporation, lends directly to the farmers and this model is being iterated. It is assumed that with the incentives that are present now, including higher buying price for *palay*, and the hard lessons on production financing, the interlinked transaction between production financing and marketing, could be effective.

The models are replete not just with formal contracts but with informal agreements as well. The customs and norms in small rural communities enforce commitments. Reputation-based mechanisms are critical in closely knit communities and thin markets because the threat of sanctions and incentive of future rewards are credible. Moreover, the "polyvalent ties" among Kalasag farmers and FEP cluster members in Cebu where the smallholders are related as family members, relatives, neighbors, classmates - and not just as members of the same cooperative/cluster - pressure farmers to comply with agreements.

Together, the formal and informal mechanisms that improved trader-lender contracts led to financial inclusion and to inclusiveness and sustainability in the value chains that were studied. There are also indications that the contracts in the models are self-enforcing. This means that the parties – the farmers, financial service providers, and the corporate/major buyers – along with the partners in the chains (e.g. civil society, government agencies, and other stakeholders)

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<sup>1</sup> Which is not the same as contract farming or contract growing arrangements. The "contracts," based on the description of Jollibee Group Foundation, leans towards "deep procurement" (see FAO, 2015).

could enforce the agreements (delivery of the majority of the harvested products and payment of production loan) without the need for third-party enforcement (i.e., courts).

It is assumed that there are two conditions that improved the interlinked contracts:

One, the business models of the stakeholders allowed them to fulfill their mandate and achieve their bottomline but they enhanced their business model by being inclusive and sustainable. JFC's decision to implement FEP is based on its decision to pursue shared value creation, which meant that FEP, which is a corporate social responsibility initiative, is closely related to the core business of the company. The SKK Farmers Corporation's decision to "buy high, sell low" is prompted by the mandate of the Catholic Church to help poor smallholders particularly the ones in Basic Ecclesial Communities. The other stakeholders in these two models - government agencies, civil society organizations, banks, microfinance institutions, and social movements – collaborated with and pitched in their resources because the models are consistent with their vision, mandates, and business models. They found that incorporating inclusiveness and sustainability in their work help them achieve their targets.

Two, the stakeholders did not work on their own. Rather, they partnered with other stakeholders. They complemented their mandates and resources, looked for other partners, and worked together in addressing the issues and problems. As a result, the partnerships created an enabling environment for inclusive value chains to work.

The partnerships led to relationships that were important in hurdling critical moments like "faults" and even occasional instances of "loan defaults." The relationships, which were led by diverse and multiple leaders in value chains, allowed the partners to address tipping points.

The business models of partners and the relationships in value chains filled in the institutional voids that were at the intersection of public, private, and civic sectors. Institutional voids, like the lack of financing in agribusiness value chains, were addressed through the creation of new contracts and the enforcement of better agreements. In other words, wicked problems were addressed through the creation of inclusive institutions.

Based on these findings, the EMIT C4C provides key recommendations. These are meant for two types of audience: a) for lenders, particularly commercial banks and b) for government.

*For lenders:*

Commercial banks find it difficult to reach smallholders. The costs are high and the risks are not known. There are at least three tiers of farmers' groups.

The first tier is composed of groups that have already grown. Groups in this tier are already bankable and could already be funded by commercial banks through direct lending to their farmers' groups. The second tier is composed of groups like those studied in this paper (e.g. FEP's partner farmer groups and the SKK Farmer's Corporation). These groups have already hurdled initial financing requirements (e.g. production and working capital), they have major buyers, and they have proven that they could deliver the needed crops and commodities in terms of the needed quality and volume. Those in this tier, like the Kalasag Farmers that need a bigger cold storage or the SKK Farmer's Corporation that need a bigger rice processing center, are in need

of growth or expansion financing. Commercial banks can fund the requirements of this tier either through direct lending to the farmers' groups or through intermediaries like rural banks. The third tier is composed of farmer's groups that are unbanked. Most of the partner farmers of FEP and the farmers who are members of the SKK Farmer's Corporation were part of this tier until financial inclusion was made possible through the value chains. Commercial banks could also choose to lend to smallholders in this tier if they are involved in value chains that include major buyers as partners. Lending could be direct to the farmer's groups or through intermediaries (e.g. financial service providers like rural banks and microfinance institutions or through the major buyers). In Mindanao, for instance, there are models where the Land Bank of the Philippines partnered with the smallholders, the farmers' groups, and the buyer/company in order for the farmers to access production loans. In lending to the first, second, or third tiers, commercial banks could choose to undertake pilot initiatives first. The models could be iterated, further improved, and documented.

The following suggestions could be incorporated in piloting agri-financing models:

One, **value chain financing could be pursued**. Based on the models, interlinked contracts serve as collateral substitutes that facilitated financing. Based on the relationships in value chains, including the pre-commitment of buyers to purchase from farmers and the commitment of partners-beyond-the-chain to assist farmers, banks can lend to partnerships. This can include mechanisms like "blended financing" or joint ventures of farmers and major buyers and other schemes that will allow banks to lend to the relationships or the partnerships in value chains.

Two, creating **shared value** means engaging in initiatives that have business and social returns. Commercial banks could gear their corporate social responsibility to efforts that are related to the banks' core business. In this way, the CSR of commercial banks could focus on improving the capacity of smallholders and other value chain stakeholders to engage in value chain financing. The CSR program could shoulder the initial social investment cost of partnering with smallholders. The banks' partners (e.g. major buyers, civil society, and government offices) could also share in the social investment cost, co-manage the risks, and address the problems.

Three, the interlinked contracts in inclusive value chains could be **expanded** to include other partners. The experiences of the Dutch program, 2SCALE, in Benin, as well as the Mercy Corps and partners' project in Indonesia, which were part of this paper's literature review, show that interlinked credit markets could include not just corporate buyers, smallholders, government, civil society, and banks. The value chain could also involve input providers that will ensure the availability of and access to the needed inputs, which is one of the risks in lending to smallholders. These kinds of expanded contracts among partners in value chains could widen the scope and scale of value chain financing.

Four, commercial banks can work together to be able to **share in the product development cost**. The implementation can be designed so that commercial banks are lending to different models, groups, or areas. The Land Bank of the Philippines, which has a longer and more varied experience in agriculture and agrarian lending, is encouraged to join the product development effort, share its lessons, and contribute to the product development cost. LANDBANK can benefit from the development of new, more efficient, and more effective models.

Five, in doing pilot projects or model building, it is important for the initiatives to be documented for lesson gleaning and lesson drawing.

*For government:*

The provision of complementary, non-financial, support services will improve the smallholders' bankability. The provision of infrastructure like roads and telecommunication facilities will improve the marketability of farmers' products. In turn, marketing contracts can give smallholders' higher chances of obtaining production loans. The lack of viable and acceptable crop insurance for onions and other high-value crops, is a serious concern. In the models that were studied in this paper, the smallholders have varying degrees of resilience. However, natural disasters could wipe out their gains. Public goods like crop insurance and other risk mitigation measures are needed.

In areas where inclusive value chains or inclusive agri-enterprises are present, the programs of agencies like the Department of Agriculture, Department of Agrarian Reform, Department of Trade and Industry, Department of Labor and Employment, and the Department of Public Works and Highways could be synched to improve the chances of success. This effort can also increase the possibilities of positive spill over to other areas.

The efforts of government agencies in gathering information about borrowers, crops commodities, and value chains and in making these data available could lessen the cost of screening borrowers and assessing risks. The efforts at creating credit score cards should be expedited.

There are renewed discussions on providing direct credit to farmers. This should be seriously reconsidered given the numerous lessons on direct and subsidized credit. Finally, banning informal lenders should be reevaluated. Informal finance providers fill in the credit gap or the financing requirements that are not provided by formal service providers.

## Introduction

This paper is a knowledge product of the Escaping the Middle-Income Trap Chains for Change (EMIT C4C) Center. The EMIT C4C is a program of the University of the Philippines (Center for Integrative Development Studies) and the Erasmus University (Rotterdam School of Management).

The EMIT C4C traces its beginnings from the *Escaping the Middle-Income Trap: Pragmatic strategies for Inclusive Growth* project undertaken by the University of the Philippines (particularly the UP School of Economics and the UP College of Social Sciences and Philosophy), the Erasmus University Rotterdam (particularly the Rotterdam School of Management and the Erasmus School of Economics), and the Asian Institute of Technology in Bangkok. The EMIT project, which was from 2011 until 2016, examined why of the many countries that have managed to transition from a low-income to a middle-income country status, only a very few have succeeded in joining the cluster of industrialized and rich economies of the world.

One of the key realizations of the EMIT research project is that the overall problem of the Philippines' lack of competitiveness (especially vis-à-vis the closest ASEAN competitors) can be traced to the low and stagnant agricultural productivity and the dysfunctional supply chains in the sector. Key to the analysis is the fundamental interconnection between this competitiveness challenge and the lack of inclusiveness in the agricultural sector. Addressing the marginalization of smallholders and producers is therefore not only a primary societal goal in order to restore their human dignity, it is also an economic imperative to transition towards sustainable growth.

The problem of persistent poverty can likewise be seen in terms of the inability of a substantial part of the country's population, mostly in agricultural areas, to benefit from the steady growth that has taken place in the last couple of decades. Smallholders have been particularly marginalized, and likewise trapped in the lowest value-added segments in the country's local supply chains. The inadequate provision of critical public goods (e.g., infrastructure, education, clear system of land tenure, credit for smallholders), the low incentives to produce and invest on the part of farmers, and the lack of inclusiveness in business practices all contribute to the wicked problem of low and stagnant agricultural productivity and ultimately to widespread rural poverty.

## The Action Research Project

As a follow-through of the EMIT research project, key professors and researchers from the University of the Philippines, Erasmus University, and Asian Institute of Management assembled a team to conduct an action research project on inclusive business and inclusive value chains in agriculture. Moreover, given the urgency of finding an approach towards sustainable peace through development, the inclusive models in Mindanao were likewise studied. The project embarked on an innovative action research, involving collaborative and iterative learning with all the key actors in agricultural value chains. It is an actual practice of partnerships between academe, stakeholders and practitioners (especially the smallholder farmers), that is bringing about true and shared value for all.

The extension of the EMIT project in 2017 has therefore focused on agri-enterprise development, specifically in addressing the wicked problem of linking smallholder farmers to major buyers in agricultural value chains.

## **Context of the Report: Inclusive Agriculture Value Chain Consortium**

In November 2016, the Bank of the Philippine Island (BPI) Foundation, PinoyME Foundation, Grow Asia Philippines Partnership for Sustainable Agriculture (Grow Asia PPSA), Philippine Business for Social Progress (PBSP), Peace and Equity Foundation (PEF), and the Microfinance Council of the Philippines, Inc. (MCPI) organized the "Agrifinancing Summit 2016: Banking on Inclusive Rural Enterprise Development," an agriculture financing summit that gathered commercial and rural banks, microfinance institutions, private companies, civil society organizations, government agencies, and international financial institutions to tackle the challenges of financing the activities of smallholder farmers to enable them to supply their products to corporate markets.

After two days of discussion, the conference participants realized key points. First, there are already several initiatives in assisting smallholder farmers to connect to corporate supply chains. The challenge is in scaling up and replicating the initiatives and in enabling smallholders to be consistent in supplying to corporate buyers. There is also a challenge in making the supply of credit more affordable to smallholder farmers so they can move away from informal loan providers particularly the unscrupulous traders. Second, commercial banks are interested and willing to invest directly in the initiatives of smallholder farmers. However, they note their constraints in terms of the high cost of transactions, the lack of credit worthiness of smallholder farmers, and the high risks of lending to them. Third, there are a lot of government programs in support of making smallholders commercially viable but these are not being fully maximized because of the lack of awareness about these programs or their limited scope (Danilo Songco, recap of the IAVCC meeting, March 7, 2017).

Sensing the enthusiasm of the more than 150 conference participants, the organizers of the conference proposed to establish a consortium of groups that are willing to collaborate to continue addressing the challenges and to develop models of such collaboration that can be eventually mainstreamed (Danilo Songco, interview, August 31, 2017). In the first business meeting of the Value Chain Consortium, which was later renamed to Inclusive Agriculture Value Chain Consortium (IAVCC)<sup>2</sup>, key players of different value chains actively participated: corporate buyers or off-takers (Nestle, MacNut, Zamboanga Grains, Unilever), commercial banks (BPI, Banco de Oro, Land Bank of the Philippines and Development Bank of the Philippines), civil society organizations (PinoyME Foundation, Philippine Business for Social Progress, Foundation for Sustainable Society, Peace and Equity Foundation, Jollibee Group Foundation), and government (Department of Agriculture, Department of Trade and Industry, Department of Finance, and Senator Cynthia Villar). The members agreed that the Inclusive Agriculture Value Chain Consortium will serve as a platform for exchanging information, brokering transactions (i.e.,

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<sup>2</sup> The decision to change the name of the consortium by putting emphasis on "Agriculture" was decided in the meeting and planning of consortium members on 18 September 2017.



putting the different stakeholders together to form actual partnerships), and documenting the different partnership models through an action research.

The consortium members initially agreed on six agribusiness models that will serve as pilot cases for information exchange, brokering, and financing. These are as follows:

- A. Nestle Philippines's COFFEE Project (Bukidnon);
- B. Jollibee Group Foundation's Farmer Entrepreneurship Program (Nueva Ecija);
- C. PinoyME Foundation's SKK RPC initiative (Libmanan, Camarines Sur);
- D. Zamboanga Grains' yellow corn project (Zamboanga del Norte);
- E. Unilever's coco sugar project (Quezon); and
- F. MacNut's arabica coffee project (area to be determined).

Based on agreements in the meeting, the agribusiness models were selected because these constitute varying business models that could enrich the analysis (i.e., cover conditions that might be specific to certain crops and geographical locations). Another criterion was the selection of models with different stages; e.g., ones that are low-hanging (those that have taken off but are experiencing constraints) and ones that are at the start-up phase (the momentum of the low-hanging models could inspire the beginners). In that meeting, the participants noted that most of the models are low-hanging. The commercial banks committed to address the financing constraints of the selected models.

In the same meeting, PinoyME Foundation, a member of the steering committee and a co-organizer of the November 2017 conference, invited researchers from the University of the Philippines (UP) and Rotterdam School of Management of Erasmus University (RSM / Erasmus University). The researchers, which were part of a research project on "Escaping the Middle-Income Trap (EMIT)," took on the challenge of documenting the 6 models of the AVCC as part of their action research projects.

The EMIT C4C researchers crafted a concept note and showed it to the AVCC steering committee, through the PinoyME Foundation, on 21 March 2017. The concept note elaborated on the need to: a) understand inclusive value chains and partnership models, b) scale up viable agribusiness models, and c) "replicate" specific models in new or untried situations. The concept note committed to develop a paper containing the following:

- 01. Documentation of the 6 IAVCC models including the efforts being undertaken and the results;
- 02. Review of relevant literature and practices;
- 03. Typologies to include a mapping of as many stakeholders as possible;<sup>3</sup>
- 04. Case studies of select IAVCC initiatives to uncover the cost of agribusiness projects with smallholder farmers to include the cost of "subsidies;"
- 05. Models and templates that could be "replicated" in new areas or cases;

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<sup>3</sup> In doing this, it is noted on the paper, will locate the IAVCC members among the many players. From the mapping, typologies will be developed including one on the presence/absence of critical elements for inclusive agribusiness projects with smallholder farmers. This effort will give a solid handle for understanding and analyzing the mechanisms that work and the constraints that hinder the achievement of objectives.

06. Policy brief for presentation to public and private stakeholders; and
07. Research agenda for the IAVCC and other stakeholders.

To be able to implement the research, the EMIT C4C dedicated Php 697,500.00 from its own research funds and Grow Asia PPSA dedicated Php 157,000.00 for local travels, materials, and documentation. Both sets of funds were transferred to PinoyME Foundation as the central repository of resources. It is also important to note that in the conduct of the field work for the cases that are covered in this paper, Jollibee Group Foundation, PinoyME Foundation, and Zamboanga Grains, Inc. co-shared resources.

From the six IAVCC cases, a separate action research project was undertaken on Jollibee Group Foundation's Farmer Entrepreneurship Program and PinoyME Foundation's SKK RPC in partnership with both JGF and PinoyME Foundation. Aside from the two, the case of Unifrutti Philippines – La Frutera – Hineleban Foundation, was also included in the action research project. During the first phase (also called first loop) of the action research project, a deep dive documentation of the three cases and a discussion of the preliminary findings with internal stakeholders were undertaken. It is out of this Action Research Project that most of the data, analysis, and findings for this paper were culled. For this Action Research Project, the Jollibee Group Foundation provided resources to the EMIT C4C to cover part of the research costs.

This paper discusses two of the six cases discussed with the IAVCC: Farmer Entrepreneurship Program and SKK RPC. The EMIT C4C developed a separate case study on the Zamboanga Grains model. The three other IAVCC models did not materialize for various reasons including lack of models/areas to be studied and different research priority of the stakeholders/practitioners.

### **Flow of the paper**

This paper has two parts. The first part covers the macro picture of agriculture financing including a review of related literature, a scoping of Philippine policies and programs on agriculture financing, and a discussion on the state of financing for smallholders in the country. The second part covers the FEP and SKK RPC models. This part begins with an elaboration of the conceptual framework and the research methodology. Afterwards, each model is discussed. This part ends with conclusions and recommendations with the latter zeroed in on suggestions for government and commercial banks.

**Part 1: Agriculture financing literature, policies, programs, and state of agriculture lending for smallholders**



## Review of relevant literature

The literature provides insights into the conditions that contribute to inclusive or sustainable<sup>4</sup> agriculture financing. This review covers local and international studies encompassing different types of written work: a) journal articles discussing theoretical and empirical aspects of credit and other financial services; b) materials showing the results of scoping efforts and program evaluations; and c) case studies investigating models of smallholders' financial inclusion.<sup>5</sup>

Partnership-based approaches (based on long-term relationships) are becoming prominent in the literature. There are case studies and reports that show cross-sector partnerships (i.e., among government, private sector, and civil society) providing the enabling environment for inclusive and sustainable financing.<sup>6</sup>

### ***State-led financial interventions and the problems that emerge from directed credit***

Strong government intervention in lending, particularly subsidized credit, was the dominant approach from the 1950s until the early 1990s. According to Buttari (1995), the sentiment that "markets were not well-behaved" prompted governments to allocate credit directly and establish the terms of lending. Joseph Stiglitz (1993) called for strong government intervention since the equilibrium in the credit market may exist at a point where the demand and supply of loans do not equate. He discerned that banks do not want to lend beyond a certain interest rate because the borrowers who were willing to pay even at higher rates are considered as high risk. Hence, the demand for loans may exceed the supply and the free market cannot guarantee efficiency.

Directed and subsidized credit was perceived as the way to provide smallholders access to credit. Geron et al. (2016) observed that directed credit was aimed at specific farmers' groups, specific locations, and specific crops (Llanto 2000; Geron et al. 2016). In the Philippines, directed credit was usually incorporated in production programs (along with seeds and fertilizer dispersal) like

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<sup>4</sup> "Sustainable" is in reference to the Sustainable Development Goals (SDGs), particularly the ones that relate to inclusive value chains: These goals are: (1) no poverty, (2) zero hunger, (5) gender equality, (8) decent work and economic growth, (10) reduced inequalities, (12) responsible consumption and production, (15) life on land, (16) peace and justice, and (17) partnerships for the goals.

<sup>5</sup> The research team did a Google Scholar search on the following key words: smallholders, farmers, agriculture, credit, financing, inclusive, sustainable, value chains, and partnerships. The works of Gilbert Llanto, Piedad Geron, Alma Badiola and others from the Philippine Institute for Development Studies (PIDS) were flagged from the key word search on smallholders, farmers, credit, financing, and value chains, especially if these are narrowed down to the Philippines. The works of Rob van Tulder and the 2SCALE program emerge in key word search on partnerships, financing, and agriculture. From a review of these works, the research team followed the literature that were cited, and reviewed those that were available online. Some of the authors that were reviewed by Llanto, Geron, and Badiola in their papers are not available online. The draft also does not yet venture into a discussion of the gaps and weaknesses in the literature. This is something that could be explored in the future iterations of the paper.

<sup>6</sup> The Conference Report on Agrifinancing Summit 2016 (a publication of PinoyME Foundation with support from the Philippine Business for Social Progress) somehow reflects these trends as reflected in Ronald Chua's Summary and Synthesis of the two-day event. He discussed the key perspectives and imperatives of "market-based interventions versus state-focused interventions versus private-public-people partnerships" where it is "important to look into the system and interrelationship of different players and their different functions".

the Masagana 99 (rice) and Masaganang Maisan (corn). Many foreign donors supported projects that included directed and subsidized credit (Meyer and Nagarajan 2006).

Eventually, it was discovered that the benefits of directed credit were short-lived. This approach incurred high costs that were unsustainable in the long-term, and therefore failed to reach most of the farmers (Meyer and Nagarajan 2003; Geron et al. 2016). Castillo et al. (2000), in Geron et al. (2016), determined that other support services like capacity building and market linking were given little attention by the government, given its focus on directed lending.

The lessons from directed agricultural credit include the following (Meyer and Nagarajan 2003; Roumasset 2004; Geron et al. 2016): a) agricultural credit should be provided as a result of financial intermediation (and not as a direct input in production); b) credit is fungible and in the face of farmers' multiple needs, it is difficult and costly for lending institutions to ensure that the loans were used for their intended purpose (e.g., purchase of inputs); c) lenders need to totally cover their costs and sustain their operations so they should be allowed to charge market-determined interest rates; and d) directed credit is prone to political pressures, making it susceptible to biases.

A successful rural financial institution should be: a) rural-based (and not just highly specialized in agriculture); b) independent or autonomous; c) able to charge market interest rate; d) able to mobilize savings; e) less dependent on donors or state funds; f) able to collect on loans and have few losses; and g) able to provide staff incentives. With clearer evidence on the failure of directed credit programs, donors withdrew support and lending mechanisms were discontinued.<sup>7</sup>

### ***Liberalization of financial markets***

The failure of directed credit led to the liberalization of financial markets. McKinnon and Shaw wrote separate papers arguing for the elimination of financial repression in 1973. Financial repression is characterized as having a heavily regulated financial sector by controlling interest rates and extending subsidies to financial institutions. They argued that financial restrictions lead to non-market clearing situations where controlled interest rates reduce savings and capital accumulation and discourage the efficient allocation of resources. McKinnon added that financial repression leads firms to tap subsidies for more capital-intensive enterprises rather than labor-intensive sectors such as agriculture.

The failure of directed credit also led to the adoption of market-based (not market-led) credit and financial services. In the Philippines, from the late 1990s until the present, studies looking into the ***demand and supply sides of financial services, notably credit, emerged***. These studies examined why agricultural credit does not easily flow to rural areas, especially to smallholders (Geron et al. 2016; Bermudez 2009).

The demand side refers to the ability and willingness of smallholders to access and utilize financial services, while the supply side pertains to the entry and willingness of financial service providers to offer the needed products or services. In this framework, the government's role is not to give direct credit services but to provide an enabling environment for the matching of the demand and supply of financial services. This frame also does not espouse total free market of credit since

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<sup>7</sup> This summary is derived mostly from Geron et al. 2016.

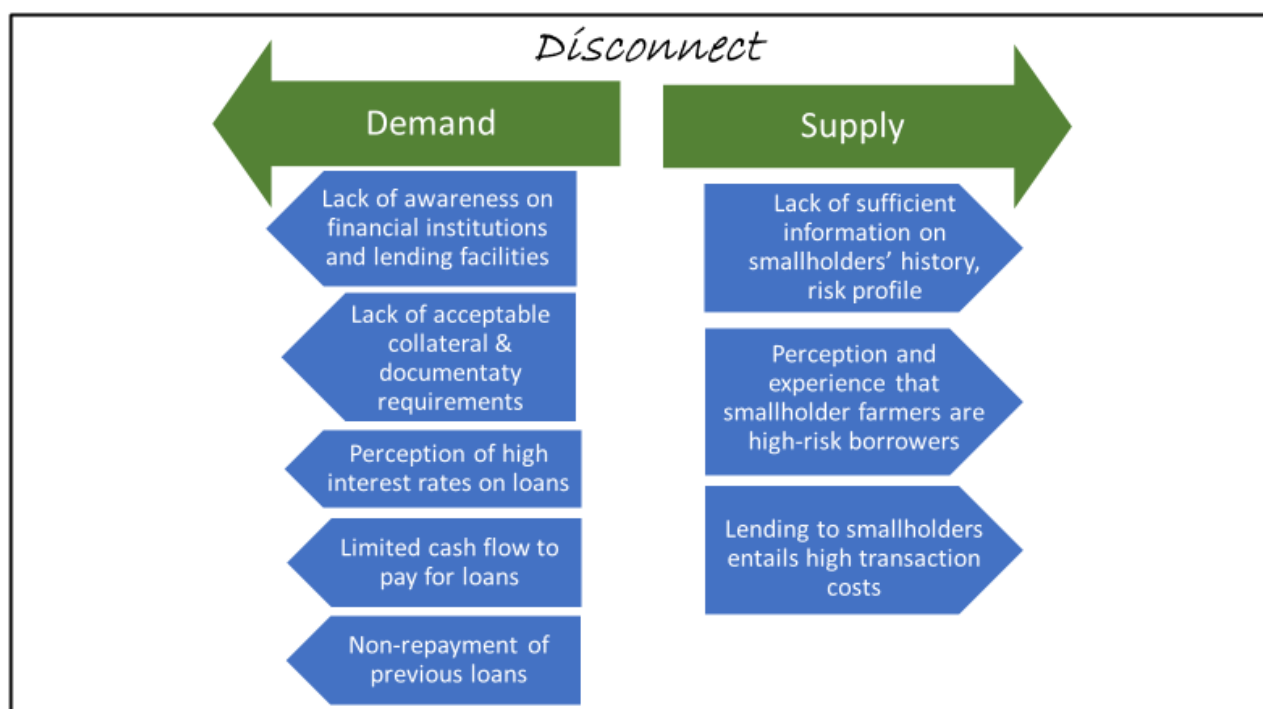
the matching of demand and supply also needs some (limited) form of government interventions, including the establishment of loan guarantees.

Geron et al. (2016) note that there is effective demand for financial services, particularly agriculture-related credit, when smallholders meet the following conditions: a) they are aware of the presence of financial institutions (in their area) and know about their programs and services; b) they can have access to banks and other formal financial institutions; c) they have the needed collateral; d) they are able to comply with the documentary requirements; e) they have sufficient cash to pay for their loans; and f) they are offered with products that match their needs (and cash flow).

There is effective supply for financial services, specifically agriculture-related credit, when formal financial institutions meet these conditions: a) the risks connected to agriculture are minimized or covered; b) the costs associated with lending to far-flung areas and dispersed farmers are reduced; c) there is knowledge or understanding of the financing needs of smallholders, and there are products that would respond to these needs; and d) the regulatory environment encourages lending to smallholders.

There is a mismatch between the demand and supply of financial services because of various barriers. Figure 1 summarizes the disconnect that hinders the smallholders' access to agriculture credit.

Figure 1. Demand & Supply mismatch in smallholder agriculture credit



On the demand side, the barriers include the smallholders' lack of awareness of accessible financial institutions and lending processes and procedures, difficulty in meeting the

requirements, lack of acceptable collateral, perception that banks have high interest rates on loans, limited cash flow to meet loan obligations, and non-repayment of previous loans.

To hurdle these demand-side barriers, Geron et al. (2016) suggest various means including information dissemination, acceptance of innovative collateral substitutes (e.g., marketing contracts), simplification of requirements, provision of lower interest rates on wholesale loans, setting a ceiling on pass-on retail loans, and restructuring of arrears.

On the supply side, the barriers are significant. One, financial institutions do not have sufficient information on smallholders, including their history and risk profile (Geron et al. 2016). Asymmetric information means greater uncertainty and higher risks, leading to an unwieldy and unreliable credit assessment (Bermudez 2009). Two, financial institutions require collateral and documentary requirements in order to manage risks associated with lending to smallholders. Bermudez (2009) notes that expertise is short among the suppliers of agriculture financing, and evaluating the risks in agricultural proposals requires tools, competence, and skill sets that are different from conventional banking. Banks could not thoroughly evaluate the primary source of repayment or the “first way out” and often need hard collateral as “second way out” in their lending transactions. And three, financial institutions need to manage their costs in lending to smallholders, especially those situated in far-flung areas.<sup>8</sup>

To address supply side challenges, Geron et al. (2016) recommend the provision of support services to smallholders (e.g., capacity building), the use of agricultural credit guarantee to manage the risk of financial institutions, and the adoption of responsive crop insurance packages to manage the risk of farmers. They also suggest the use of lending conduits, such as farmers’ cooperatives, to manage the cost of lending to far-flung areas. They likewise welcome the culling of information on all borrowers, which is a mandate of the Credit Information Act.

### **Informal credit markets: Interlinked contracts of trader-lenders**

Informal credit markets are identified in the literature as market correcting tools that occur when there are not enough formal financial institutions that can service the credit demand of the economy. Rural households often go to informal credit markets to support their production and consumption requirements (Pham and Lensink 2007). The relative ease of transaction, proximity, access, non-requirement of collateral or acceptance of alternative collaterals, flexibility and lower transaction costs for borrowers and savers (Kashuliza 1993; see also Adams and Fitchett 1992) make borrowing from informal sources palatable for many smallholders.

Esguerra (1993) defines the space for informal finance providers: “Against the backdrop of failed government-sponsored credit programs and the demonstrated inability of banks - despite some measure of financial liberalization - to meet the small farmer demand for credit, the competitive advantage of informal lenders became acknowledged as fact.” Informal lenders occur when there are not enough formal financial institutions that can service the credit demand of the economy.

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<sup>8</sup> Bermudez adds that rural financial institutions have inadequately invested in and deployed technology to reduce underwriting and administration costs. Many of these rural financial institutions are strong in regard to their intimate familiarity with their customers. Because of the intensity of these one-on-one, face-to-face, interactions, they paid little attention to automating the administration and underwriting of loans that could bring down unit costs.

In discussing informal credit markets, the view that they are monopolistic, usurious, and exploitative is extreme. Some of the authors who studied informal finance do not subscribe to this extreme view even if they also criticize state-sponsored credit programs. This is partly because this perspective is seen as the basis for government interventions in rural credit markets (Esguerra 1993; see also Adams 1992).

In the 1980s, the contributions to the analysis of informal credit markets evolved from models of markets characterized by imperfect information (Esguerra 1993). For many transactions, information regarding the quality of crop or commodity being traded is unequally available between lenders and borrowers. Often, this asymmetric information leads to rationing in credit markets (Stiglitz and Weiss 1981).

In the context of imperfect markets due to asymmetric information, mechanisms like “interlinked contracts” provide incentives to minimize representation and induce honest behavior.<sup>9</sup> He defines an interlinked transaction as one in which two parties trade in at least two markets on the condition that the terms of all such trades are jointly determined. In his dissertation, Esguerra (1993) looked into informal credit relations in rice producing province of Nueva Ecija and learned about two types of informal lenders: farmer-lenders and trader-lenders. He saw that informal lenders engage in interlinked or tied contracts with smallholders.

He saw that tied contracts or interlinked transactions are common forms of “collateral substitutes” (conditions in loan contracts that increase borrowers’ incentive to repay).<sup>10</sup> Lenders (or interlockers) are foremost interested in non-credit markets (e.g., securing grains in the case of trader-lenders and economizing cost of farm labor in the case of farmer-lenders) and these interests influence the design of contracts. Compared to pure moneylenders, interlockers have lower interest rates because they depend mainly on moneylending as source of income and do not have the flexibility - compared to trader lenders who want the grains and the farmer-lender who want the farm labor - to lessen interest rate.

The interlocked or tie-in sale provision in the (informal) loan contract serves as a screening and enforcement mechanism. A borrower’s decision to enter into a credit / marketing arrangement is a mechanism for enforcing loan repayment because the trader-lender, who also acts as the medium for the sale of the borrower’s harvested surplus, in effect, has first claim on the proceeds of the sale. S/he is in the position to directly collect the amount loaned. With this, financing flowed to smallholders who are in need of production and other loans.

### ***Cross-sector partnerships for enabling inclusive and sustainable agriculture financing***

The literature on partnerships (e.g., cross-sector partnerships, public-private-partnerships) offers an approach for inclusive and sustainable agriculture financing. In this body of work, the partnership – the value chain stakeholders working together – enables the flow of financing to the smallholders and other actors in the chain. These efforts have elements of interlinked credit markets but the partnership contracts improved the mechanisms.

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<sup>9</sup> The literature on asymmetric information from the New Institutional Economics suggest that the supply and demand approach to credit could be enriched with an appreciation of the economic role of contracts and institutions.

<sup>10</sup> Binswanger and Rosenzweig (1986) gave this definition.



The Dutch-funded program, “Toward Sustainable Clusters in Agribusiness through Learning in Entrepreneurship” or 2SCALE ([www.2scale.org](http://www.2scale.org)) manages a portfolio of cross-sector partnerships across nine focus countries in Africa. 2SCALE offers lessons on agriculture financing from partnership experiences in the African region. Magaja and Agai (n.d.) register that like other farmers, 2SCALE farmers are in need of financing for various purposes including purchase of inputs, buying and consolidation of agricultural products, agricultural processing, and acquisition of equipment and other assets. The private sector likewise requires resources for some of their needs.

Despite the demand, “the financial sector strongly lacks the knowledge, incentives, and skills to target and service the agriculture sector, leading to severe financing constraints.” Most of the loan products demonstrate a mismatch between the repayment schedule and cash inflow of smallholders and the small and medium enterprises in the agriculture and food sector. Many of the banks also offer a rigid repayment schedule.

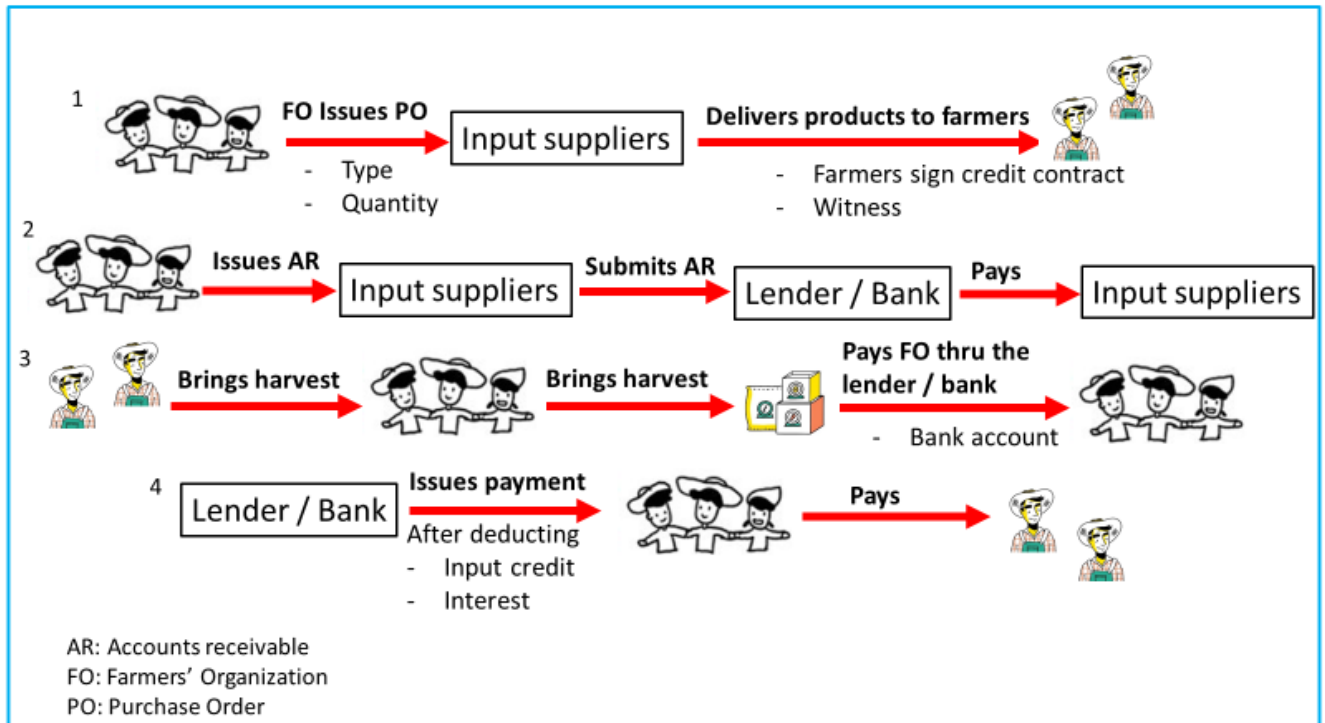
The 2SCALE program gathered the partners across the value chains and asked key questions aimed at improving the availability and effective use of financial services for smallholders and small and medium enterprises. A needs assessment was conducted, an inventory of available financial services and products was taken, and the business models and funds flow in the value chain were studied. The 2SCALE staff, coaches, and finance specialists subsequently matched the demand and supply, leading to the enhancement of financial products and the design of new financial instruments. Afterwards, the products/instruments were used, monitored, and evaluated (Magaja and Agai n.d.).

In a 2SCALE initiative in Benin, the smallholders’ organizations developed a business plan incorporating the production activities and the financial needs. Sales contracts committing the selling and buying of farm products were crafted and agreed upon by the farmers and the off-taker. Said contracts allowed farmers to access inputs from the input dealers, to be paid by the financial service providers. Upon receipt of inputs, individual farmers sign a credit contract with their farmers’ organization. The farmers’ organizations submit the credit contract and acknowledgement receipt to the financial service provider to trigger payment to the input supplier. During harvest time, the farmers’ groups deliver their products to the off-taker and the latter pays for the delivered harvest through the financial service provider. The financial service provider deducts the input credit and interest and remits the balance to the bank account of the farmers’ groups.<sup>11</sup> Figure 2 depicts the flow of the 2SCALE value chain in Benin.

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<sup>11</sup> This 2SCALE effort in Benin included the following stakeholders: nine farmers’ cooperatives, Promo Fruits Benin (off-taker), FOJEDEA and SONAPRA (input dealers), and FECECAM (private financial service providers).

Figure 2. 2SCALE value chain in Benin



Another multi-stakeholder approach to reduce risks in financing smallholders is also documented in Indonesia (PinoyME Foundation's IAVCC Conference Report 2016; PISAgro and Grow Asia's Corn Working Group Journey 2016). A commercial bank, a rural bank, an input supplier, a humanitarian organization, and an insurance provider collaborated to address the needs of stakeholders of the value chain, principally the financing requirements of smallholders.

Mercy Corps Indonesia, a global humanitarian group, facilitated the financing scheme and provided capacity building to the farmers. In partnership with the Ministry of Agriculture, Mercy Corps developed a short text messaging platform to allow smallholders to easily access agricultural services and share information (Nyamanhindi 2013). Syngenta, an input supplier, helped provide agriculture extension services to the farmers by determining the composition and volume of input packages (seeds, pesticides and fertilizers), distributing these packages, and training the farmers on farming methods. BPR Pesisir Akbar, a rural bank, assessed, validated, and provided the farmers' loans. It also worked with Syngenta, Mercy Corps, and other stakeholders in monitoring the progress of crops. Bank Andara, a commercial bank, provided the wholesale financing for BPR Pesisir Akbar, and trained it on aspects like financial literacy. Asuransi Central Asia, a crop insurance provider, administered insurance coverage to the farmers and trained the agronomists from Syngenta and the officers from BPR Pesisir Akbar on the insurance products.

In the Philippines, Llanto and Badiola (2015) detailed the value chain financing of the Kalasag Farmers Producers Cooperative. They identified the off-taker in the value chain (Jollibee Foods Corporation), the smallholders (Kalasag farmers), the financial service providers (Alalay sa Kaunlaran, Inc. or ASKI, a microfinance institution and the Agriculture Credit Policy Council or

ACPC, a government think tank), the organizer of farmers (Catholic Relief Services), and the developers of the Farmer Entrepreneurship Program or FEP (Jollibee Group Foundation, Catholic Relief Services, and the National Livelihood Development Corporation). Llanto and Badiola (2015) narrated that the farmers borrowed funds for onion production from their cooperative, and in turn, the latter borrowed from ASKI (later on, from ACPC). During harvest, individual farmers sell at least 60% of their products to their cooperative. Their cooperative peels, stores, and delivers harvested onions to the Jollibee Foods Corporation and to other buyers. When payment for the onions is received, the cooperative pays the financial service provider and the farmers.

To enable this transaction, various groups assumed distinct parts in the value chain: the local government unit of San Jose City and Catholic Relief Services organized and clustered the farmers; the Jollibee Group Foundation bridged the farmers to JFC (and eventually to other buyers); the local government also provided agriculture extension services; and the National Livelihood Development Corporation invited ASKI to join the FEP and to lend to the smallholders even in the absence of acceptable collateral.

The study of Jimena et al. of the University of the Philippines Los Baños (2016) examined cases of agro-enterprise development (AED) initiatives in the Philippines in regard to the roles of institutional players in the value chains. It profiled select AED initiatives and identified different modes of developing these initiatives. Their strengths, weaknesses, opportunities and threats were determined, and the potential impact on rural poverty reduction was analyzed. The profiling involved eight civil society organizations, two private sector groups, and three government offices. The data from the profiling effort were thematically analyzed. The FEP and the SKK RPC are covered in the study as part of AED projects led by the private sector (Jollibee Group Foundation) and civil society (PinoyME Foundation), respectively.

Jimena et al. (2016) observed that AED is a market-oriented approach stemming from the failures of production-based approaches to address rural poverty. AED is partnership-oriented and AED projects are implemented through multiple or extended partnerships with more than two entities from different sectors working together to pool their unique expertise and resources. Even government-led AED (e.g., sugarcane block farms) rely on partners from the private sector (like sugar mills), other government offices (e.g., LGUs for agriculture extension services), and civil society and academe for provision of business development services. Each partner plays a specific role crucial in AED project implementation.

The AED projects have untapped potentials or opportunities that could be further maximized. These include the growing opportunities for agriculture value chain financing that open farmers' access to credit. Jimena et al. (2016) recommend maximizing and providing support to AED initiatives, including potential for chain-wide upgrading programs.

# **Agriculture financing policies and programs in the Philippines: Historical overview and current considerations**

Scholars and practitioners have long studied agriculture financing policies and programs in the Philippines. Before the late 1990s, the policy and program regime was characterized as supply-led provision of credit, with the government serving as supplier of cheap, subsidized, and highly-targeted credit to the rural sector. Policies and programs eventually took a different turn. In 1997, the Agriculture and Fisheries Modernization Act (AFMA) was passed and in 1998, Executive Order No. 138, also known as the National Strategy for Microfinance, was issued. With these enactments, directed lending programs were removed from government agencies and were coursed through government financial institutions. The government was also tasked to provide an enabling policy environment and support services to key actors in the rural sector, rather than to serve as direct provider of credit. Private financing providers were encouraged to participate in the delivery of credit and microfinance products and services.

This review traces the historical antecedents of agriculture financing policies and programs to provide the context of current initiatives. It also includes an analysis of the background of these policies in light of the fragmented delivery of support services from the government. The review demonstrates that many agriculture financing policies and programs have been undertaken. The shortage of resources and good intentions in the sector is therefore not the reason behind the limited financing catering to smallholders.

Crucial to the success of models like the FEP is the pursuit of coordination and relationship-based approaches that go beyond government-led and even market-based methods. Models like the FEP succeeded in building partnerships amidst fragmented government offices providing silo-type programs.

## **Credit policies and programs from the 1970s until mid-1990s**

The various works of Llanto, Geron, Badiola, and the Philippine Institute for Development Studies (PIDS) include discussions of policies and programs on agriculture financing. Llanto's paper (2000) as well as Geron et al.'s 2016 paper comprehensively trace agriculture financing policies and programs from the 1970s until the present. The discussions in this section are based mostly from these works.

Llanto (2000) notes that from the 1970s, the government implemented supply-led credit policies and programs that were usually commodity-specific and were implemented to meet self-sufficiency objectives, particularly on the staples: rice and corn. Special time deposits at below market rates were available to banks that lend to rice and corn farmers. The Central Bank had a special rediscounting window providing low-cost funds to encourage lending to smallholders. The supply-led provisioning of credit was reinforced by the 1975 Agri-Agra Law or Presidential Decree 717 that mandated financial institutions to allocate 25% of their portfolio for lending to agriculture initiatives and agrarian reform beneficiaries (ARBs).

Esguerra (1995) and Lamberte (1992) reviewed the Philippine direct credit programs (DCPs) and found out the following features:

1. Preference toward group lending vs. individual lending
2. Use of lending conduits to implement programs
3. Comprehensive financing programs are preferred rather than commodity or activity specific loans
4. Savings mobilization features were introduced
5. The need to broaden the beneficiaries

The use of lending conduits is of particular interest for direct credit programs. Conduits were employed to administer the programs in a more efficient and scalable manner since financing activities is at the core of the operating functions of a rural or commercial bank. Banks are also less exposed to political interference and have the ability to design products better (Lamberte 1992). Government agencies, however, suffered from limited staff experience in the implementation of direct credit programs especially with functions such as credit evaluation, monitoring and collection, and being subject to political influence.

Due to the mounting calls for reforms with DCPs, agencies allowed third parties to act as lending conduits or wholesalers for DCPs. This included financial institutions (private or government, commercial, thrift or rural), NGOs and cooperatives. Banks had a natural advantage for implementing credit programs for its experience and expertise. NGOs and cooperatives were said to be closer to poor communities and had lower cost for evaluating rural borrowers.

The mid-1980s until the early 1990s was a period of policy reforms toward more market-based financial policies and programs. Llanto (2000) identifies the key policies and programs during this period to include the deregulation of interest rates and the gradual removal of subsidies. The Central Bank, as a policy, adopted market-based interest rates and their mechanism for preferential credit allocation was closed. The different funds for commodity-specific agricultural lending were consolidated into the Comprehensive Agricultural Loan Fund (CALF). Moreover, since many rural banks suffered defaults and repayment losses during the 1970s and 1980s from the commodity-specific programs, the Central Bank issued Circulars meant to rehabilitate rural banks through fresh capital infusion and rescheduling of past due obligations with the Central Bank.

The Department of Agrarian Reform (DAR) had direct lending assistance from the DAR Central Office (DARCO) for agrarian reform beneficiaries and their organizations and cooperatives. These include the Dutch Rural Development Assistance Program (DRDAP), a direct credit program of the DAR, which was meant to serve as fertilizer assistance to farmers through direct lending. Applying for loans through the DRDAP necessitated minimal requirements; and over time, this led to a dismal repayment rate (21.56%). Two other direct lending programs followed the DRDAP: the SPO Direct and the Direct DAR-Lending Financing Program (DDLFP). In the experience of the DAR, these directed credit programs resulted in massive loan defaults that remain unpaid even after many years (Songco et al. 2011). This prompted the DAR to create a Task Force Collection in 1996 to address the low and non-payment of loans.<sup>12</sup>

The passage of the AFMA in 1997 and the National Strategy for Microfinance in 1998 signaled the shift to more market-based reforms including the phase-out of government's directed, subsidized,

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<sup>12</sup> DAR Special Order 781 dated 30 September 1996.

and targeted credit programs, the consolidation of the proceeds from the directed credit programs into the Agricultural Modernization Credit and Financing Program (AMCFP), and the encouragement of the private sector to participate in credit and microfinance delivery. Congress also introduced reforms in support of the microfinance industry by revising the General Banking Law of 2000 (RA 8791), which includes a different treatment for microfinance-oriented banks, the availability of rediscounting facilities, and the provision of a different supervision format appropriate for MFIs.

In spite of these, Llanto (2000) remarks that the market-based reforms in government policies were inconsistent. For instance, Cabinet Resolution 29 was passed in 1998, which allowed the Department of Social Welfare and Development (DSWD) to engage in direct lending. Although this policy only covers the DSWD, it nevertheless created an avenue to undermine the government's own market-oriented credit and financial policy, leading to the proliferation of subsidized credit programs. He referenced a 1995 OECF study, which reported that there were 111 directed credit programs in the country; by 1997, Llanto et al. reported that there were about 42 credit programs in the agriculture sector.

### **Current policies in agriculture financing**

The policies and programs in agriculture financing is a mix of market-based reforms with what Buttari (1995) describes as "forms of indirect government intervention in credit markets." Aside from the AFMA and the National Strategy for Microfinance, other policies reinforced the private sector's participation in the provision of agricultural credit. The Bangko Sentral ng Pilipinas (BSP) issued a BSP Circular promoting the Agricultural Value Chain Financing Framework that defines the program features and regulatory incentives to guide financial institutions.<sup>13</sup> The BSP Circular puts a premium on agricultural value chains as an "effective and organized approach to channel financing to the agriculture sectors and promote financial inclusion." It reasons that "by encouraging the linking of various players in an agricultural value chain, credit risks of participating small farmers/fisherfolks can be reduced," which would allow them to have access to credit.

Furthermore, in 2008, the government passed the Credit Information System Act, which intends to establish a comprehensive and centralized information system on credit that would allow financial institutions to rate the overall credit risk of lending to smallholders (including ARBs) based on evidence (e.g., credit records).<sup>14</sup> This law created the Credit Information Commission, which is in the process of accrediting credit bureaus that will produce the credit scores. Within this current regime of market-based environment, the supply side of credit or the formal financial institutions continue to lament key government policies like the Agri Agra Law. The Implementing Rules and Regulations of the Agri Agra Law affirms the allocation of 25% of financial institutions' total loanable funds for agriculture and agrarian reform credit, of which at least 10% should be available for ARBs.<sup>15</sup>

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<sup>13</sup> BSP Circular # 908, series of 2016, which is based on the Monetary Board's Resolution # 360 dated 24 February 2016.

<sup>14</sup> RA 9510 or the Credit Information System Act dated 31 October 2008.

<sup>15</sup> The Implementing Rules and Regulations of the Agri Agra Law are stipulated in RA 10000, passed in 2009.

The penalty for non-compliance with the Agri Agra Law is 0.5%, and part of the penalties paid by financial institutions are remitted to both the Agricultural Guarantee Fund Pool and the Philippine Crop Insurance Corporation. Given the high transaction costs and risks associated with agriculture and more so, agrarian lending, commercial banks typically prefer to pay the penalties instead of undertaking lending, which they deem to be costly and risky.

Table 1. Compliance with the Agri Agra Law as of June 2017

<b>Compliance with the Agri Agra Law (RA 10000)</b>				
(in billion pesos)				
<b>As of June 30, 2017</b>	<b>All Banks</b>	<b>Uni / Com</b>	<b>Thrift</b>	<b>RB/Coop</b>
<b>A. Total Loanable Funds</b>	3,813.986	3,578.941	178.810	<b>56.235</b>
<b>B. Minimum Requirement:</b>				
10% Agra	381.399	357.894	17.881	<b>5.624</b>
15% Agri	572.098	536.841	26.822	<b>8.435</b>
Total	953.497	894.735	44.703	<b>14.059</b>
<b>C. Agra Compliance</b>				
Amount	39.519	28.531	3.132	<b>7.856</b>
Rate	<b>1.04%</b>	<b>0.80%</b>	<b>1.75%</b>	<b>13.97%</b>
<b>D. Agri Compliance</b>				
Amount	504.439	472.255	16.816	<b>15.369</b>
Rate	<b>13.22%</b>	<b>13.20%</b>	<b>9.27%</b>	<b>27.34%</b>
<b>E. Total Compliance</b>				
Amount	543.959	500.787	19.948	<b>23.224</b>
Rate	<b>14.26%</b>	<b>13.99%</b>	<b>11.16%</b>	<b>41.30%</b>
<b>Direct: Alternative</b>	<b>50:50</b>	<b>47:53</b>	<b>68:32</b>	<b>92:8</b>

Source: Agricultural Guarantee Fund Pool 2017

Both the supply and demand sides of credit note the limited reach or implementation of programs on agricultural guarantee and crop insurance, which could help manage costs and risks. While agricultural guarantee could improve the supply side of credit by securing a huge portion of loanable funds to agriculture, crop insurance could improve the demand side of credit by protecting the smallholders' crops against calamities and destruction.

The Agriculture Guarantee Fund Pool (AGFP) is a program under the Department of Agriculture in partnership with the Land Bank of the Philippines. The AGFP aims to mitigate the risks in agricultural lending by guaranteeing the payment of 85% of the principal balance of loans to banks and other partner lending institutions (except in cases of fraud on the part of lending

institutions). With this mandate, the AGFP encourages lending institutions to extend unsecured agricultural loans to smallholders.

As of December 2015, the AGFP gave a total guarantee coverage of Php 5.2 billion to 101 partner institutions (53 banks, 41 cooperatives, and 7 non-government organizations and farmers' organizations), benefiting a total of 105,007 farmers and fisherfolks. The total amount of guarantee claims paid is Php 235.7 million pesos.

The Philippine Crop Insurance Corporation (PCIC) is a government financial institution created in 1978 to provide smallholders and farmers' groups insurance protection against crop losses. Its programs include protection for rice, corn, high-value crops, livestock, fisheries, and non-crop agricultural assets like warehouses.

The PCIC registers that as of 2016, only 15% of crops in the country are insured against destruction (i.e., weather patterns, temperature, etc.). Also, the other key performance results of the PCIC as of end of 2016 are as follows: it covered an amount of Php 39 billion; it paid Php 1.5 billion in claims; and it insured approximately 1.095 million farmers.

### **Key policies that affect agriculture financing: Fragmented delivery of support services to smallholders**

Banks lament that the demand side of credit is severely constrained by the limited support services to agriculture value chains particularly to the smallholders. An important context to this limited delivery of support services, mostly public goods in nature, involves the various policies and mandates that are lodged with different government offices. The delivery of most of these support services – agricultural extension, land rights, public works – are not well-coordinated.

The Department of Agriculture (DA), Department of Agrarian Reform (DAR), Department of Trade and Industry (DTI), and Department of Labor and Employment (DOLE) all cater to agriculture, but each is focused on its own mandate and objectives without entirely coalescing its initiatives with that of the other agencies. The DA aims to achieve food sufficiency; the DAR targets the implementation of land redistribution and the improvement of income and welfare of agrarian reform beneficiaries; the DTI promotes the growth of agri-export industries; and the DOLE ensures the labor rights and the implementation of labor standards of farm workers. The DA and DAR assist smallholders with land, while the DOLE assists regular and contractual farm laborers who are mostly landless. Between the DA and the DTI, there is also, in general, a bifurcation of targets. The DA focuses on agricultural production, and the DTI focuses on processing. Roads and other infrastructure, which are lodged with the Department of Public Works and Highways (DPWH) and other agencies do not necessarily prioritize areas where there are inclusive agriculture value chains.

The devolution of agriculture programs, including agricultural extension services, from the DA to local government units (LGUs) also effected the fragmentation of the delivery of support services. The 1991 Local Government Code devolved more than 17,000 extension workers from the DA to 78 provinces and over 1,000 municipalities and cities (Cidro 2015; Magno 2001). The devolution was designed to move agricultural extension services much closer to the farmers and the communities being served. In principle, the devolution of agricultural extension is an ideal set-



up since it was fashioned to stimulate more inclusive, efficient, effective, and transparent transactions and decision-making at the local level (Balisacan 2006 quoted in Cidro 2015).

Despite its positive intentions and envisioned outcomes, the devolution faced numerous dysfunctions. The principal challenge is identified as “finding the means to mobilize adequate financing,” since local tax collections are insufficient to effectively cover the LGUs’ fiscal obligations given restricted revenue sourcing (Llanto 2009). In particular, fifth and sixth class municipalities do not have a rich tax base and hence find it difficult to finance the service and delivery of agricultural extension. The inability of LGUs to raise adequate local funds has caused a culture of dependency on the Internal Revenue Allotments (IRA) from the central government (Guevara 2004; Manasan 2002). Cidro adds that the LGU’s share of the IRA is directly proportionate to its local income; therefore, poor LGUs with less capacity to raise taxes and revenues receive a smaller share (2015). This makes unprosperous local governments, most of which ministering to the rural poor, become more consumed by the cycle of fund deficiency and dependency.

Such financial predicament induced by the devolution is compounded by the lack of technical support to fulfill the devolved and specialized functions at the local level. The LGUs are unable to sustain and train technical staff due to deficient funds, causing the underutilization of skilled personnel especially in agriculture. In some cases, the appointments for local positions are politically motivated, leading to the engagement of workers who do not have enough competence and skills in agricultural extension, and consequently lack the predisposition to prioritize such programs. Moreover, the central government continues to be responsible for the agricultural planning and policy formation process without the involvement of local officials, magnifying the frail linkages in research, training and extension, due to the poor coordination and delineation of functional responsibilities (Magno 2001; Cidro 2015).

### **Current agriculture financing programs for smallholders**

Geron et al. (2016) identified and assessed the agriculture financing programs for smallholders. These include: a) those funded by the Agro-Industry Modernization Credit and Financing Program (AMCFP); b) the programs of the Land Bank of the Philippines (in partnership with agencies and their regular windows); and c) programs of the Department of Agrarian Reform (DAR).

#### **a) Programs funded by the AMCFP**

The removal of the directed credit programs led to the creation of the Agro-Industry Modernization Credit and Financing Program, an umbrella credit program under the Department of Agriculture. The AMCFP, as opposed to the previous directed credit programs, is demand-driven, not commodity-specific, not decided upon by government agencies, and not subsidized. The AMCFP likewise provides capacity building to both demand and supply stakeholders of credit (Geron et al. 2016).

The programs of the AMCFP include the Agriculture and Fisheries Financing Program (AFFP) that lends to farmers and fishers who are not served or are underserved by formal financial institutions, particularly the ones who are listed in the Registry System for Basic Sectors in Agriculture (RSBSA). The AMCFP also includes the Sikat Saka Program, which

provides access to credit to small *palay* (unhusked rice) farmers through Irrigators Associations serving as conduits. Other programs funded by the AMCFP include the Coop Bank Agri Lending Program that supports cooperative banks; the Agricultural Microfinance Program, which provides credit to rural women; and the Calamity Assistance Program that aids smallholders and fisherfolks affected by natural disasters.

b) Programs of the LANDBANK

The Land Bank of the Philippines (LANDBANK) was established in 1963 as part of the Agricultural Land Reform Code and was mandated to assist in the purchase of agricultural estates, the purchase of land by agricultural lessees, and the provision of financing to smallholders particularly agrarian reform beneficiaries.

At present, LANDBANK either uses its i) own funds or ii) funds from the budget allocation of non-financial government agencies like the DA and DAR. The latter refers to special credit programs designed for specific types of clients.

Table 2. LANDBANK programs and source of funds

	Use budget allocation of agencies	Use LANDBANK's own funds	Combination of budget allocation and own funds
Wholesale programs	CAP-PBD	LANDBANK's regular windows CACAO FSCP KAWAYAN	APCP
Retail programs	SIKAT SAKA AFFP		

Source: Geron et al. 2016

Programs like the Credit Assistance Program for Program Beneficiaries Development (CAP-PBD) are implemented by the LANDBANK but the credit funds are from the budget of the Department of Agrarian Reform. Programs like the Sikat Saka and the AFFP are retail in nature and their loan funds are sourced from the DA-ACPC-AMCFP and the AMCFP budgets, respectively. The programs that utilize the LANDBANK's own funds are as follows: Credit Assistance for Cacao Agribusiness and Other Organization Program (CACAO), Food Supply Chain Program (FSCP), and Kalikasang Kabuhayan para sa Wastong Pamayanan (KAWAYAN).

The Agrarian Production Credit Program (APCP) is unique. It is a wholesale program that sources funds from the LANDBANK's own budget, but infused with guarantee funds sourced from the DA. The APCP is meant for DAR's main clients, the agrarian reform beneficiaries and their organizations.

c) Programs of the DAR

The DAR implements credit/microfinance and capacity building programs through partners like the LANDBANK, CARD Bank, and the National Confederation of Cooperatives (NATCCO). These are mostly credit programs where the DAR provides the capacity building component to complement the partners' lending to ARB organizations. These include the DAR-LANDBANK's Microfinance Capacity Development Program in Agrarian Reform Areas, the DAR-CARD capacity building for ARB cooperatives in agrarian reform areas, and the DAR-NATCCO Microfinance Innovations in Cooperatives (MICOOP).

## State of agriculture financing for smallholders in the Philippines

Smallholders, which include agrarian reform beneficiaries (ARBs), are the largest segment of the rural population. The data from the Registry System of Basic Sectors of Agriculture or RSBSA estimate that there are around 6.6 million farmers of which 4.5 million (68%) are smallholders. Reports from the Department of Agrarian Reform show that there are around 2.8 million ARBs or those awarded with 3 hectares or less of agricultural land through the land reform programs. As a proportion of the smallholders in the RSBSA, ARBs comprise around 41%.

Smallholders have small land sizes. The 2012 Census of Agriculture and Fisheries (CAF) reported that there are 5.56 million farms/holdings in the Philippines, which covers 7.19 million hectares. This translates to an average area of 1.29 hectares per farm/holding. Per CAF definition, a farm/holding is any piece of land used wholly or partly for agricultural production and operated as one technical unit by one person or with others.

The number of farms/holdings increased from 1980 to 2012 by 62.6%. The Philippine Statistics Authority (PSA) notes that these "could be accounted to the partitioning of farms/holdings from one generation of agricultural holders/operators to their succeeding generation" (PSA 2015).

*Table 3. Number of farms/holdings and average area, 1980 & 2012*

Census reference year	Number of farms/holdings	Average area per farm/ holding
1980	3,420,323	2.84
2012	5,562,577	1.29

Source: PSA, Censuses of Agriculture and Fisheries 1980 and 2012

In 2012, about 98% of total farms/holdings had size of 7 hectares and below. If cut off is 3 hectares or the maximum area awarded under the Comprehensive Agrarian Reform Program (CARP), about 89% of total farms/holdings had size of 2.999 hectare and below.

*Table 4. Data of farms, 2012*

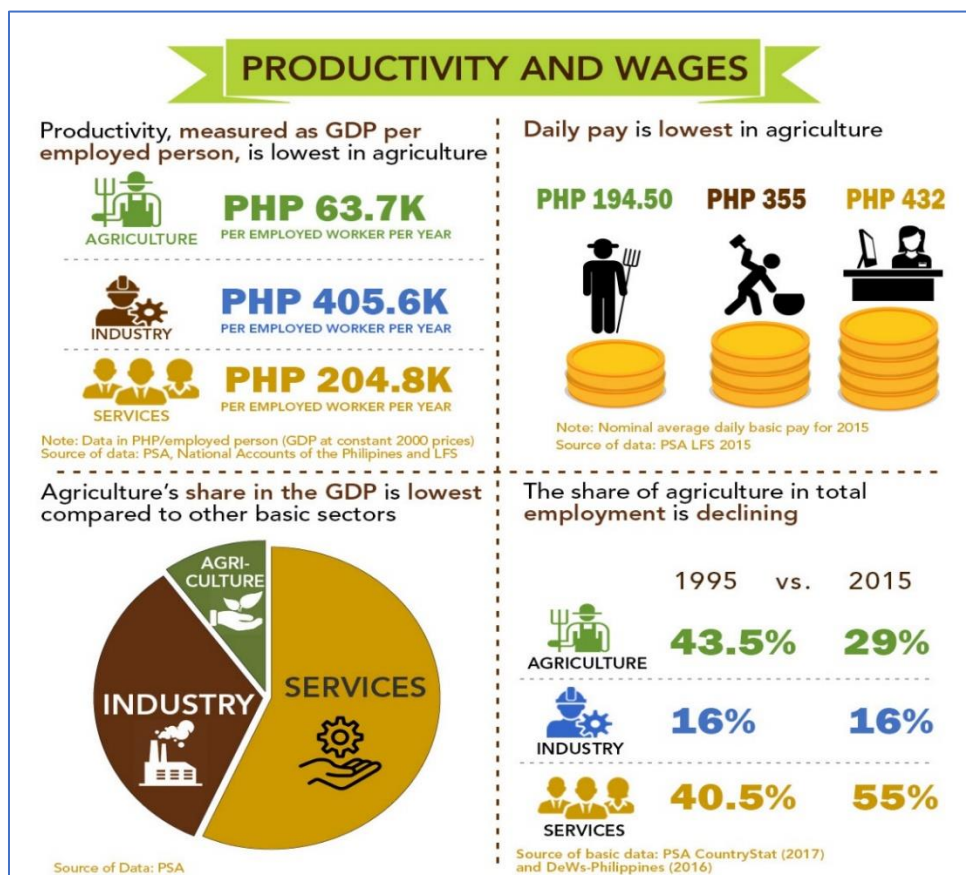
Size of farm	Number	%	Area	Average area
Total	5,562,577	100.00	7,190,087.109	1.29
Under 0.500 ha	2,159,963	38.83	277,780.819	0.13

0.500 ha to 0.999 ha	1,004,633	18.06	609,084.068	0.61
1.000 ha to 2.999 ha	1,780,702	32.01	2,594,814.772	1.46
3.000 ha to 7.000 ha	518,046	9.31	2,112,231.941	4.08
7.001 ha to 9.999 ha	44,102	0.79	363,201.962	8.24
10,000 ha to 24,999 ha	49,657	0.89	655,133.751	13.19
25.000 ha to 49.999	3,877	0.07	125,214.209	32.30
50.000 ha and over	1,597	0.03	452,625.587	283.42

Source: PSA, Census of Agriculture and Fisheries 2012

In terms of employment and wages in agriculture, it was found out, based on a review of official surveys,<sup>16</sup> that agriculture still provides employment for a sizable 29% of workers; however, their output share is only 10%. Also, the productivity of an average agricultural worker is only about a third of an average worker and the basic pay of an average agricultural worker is below half the salary of an average worker. In 2012, 66% of the working poor were in agriculture and in 2015, around 40% of the underemployed are in agriculture (Briones 2017).

Figure 3. Productivity and wages in agriculture (Source: PIDS)

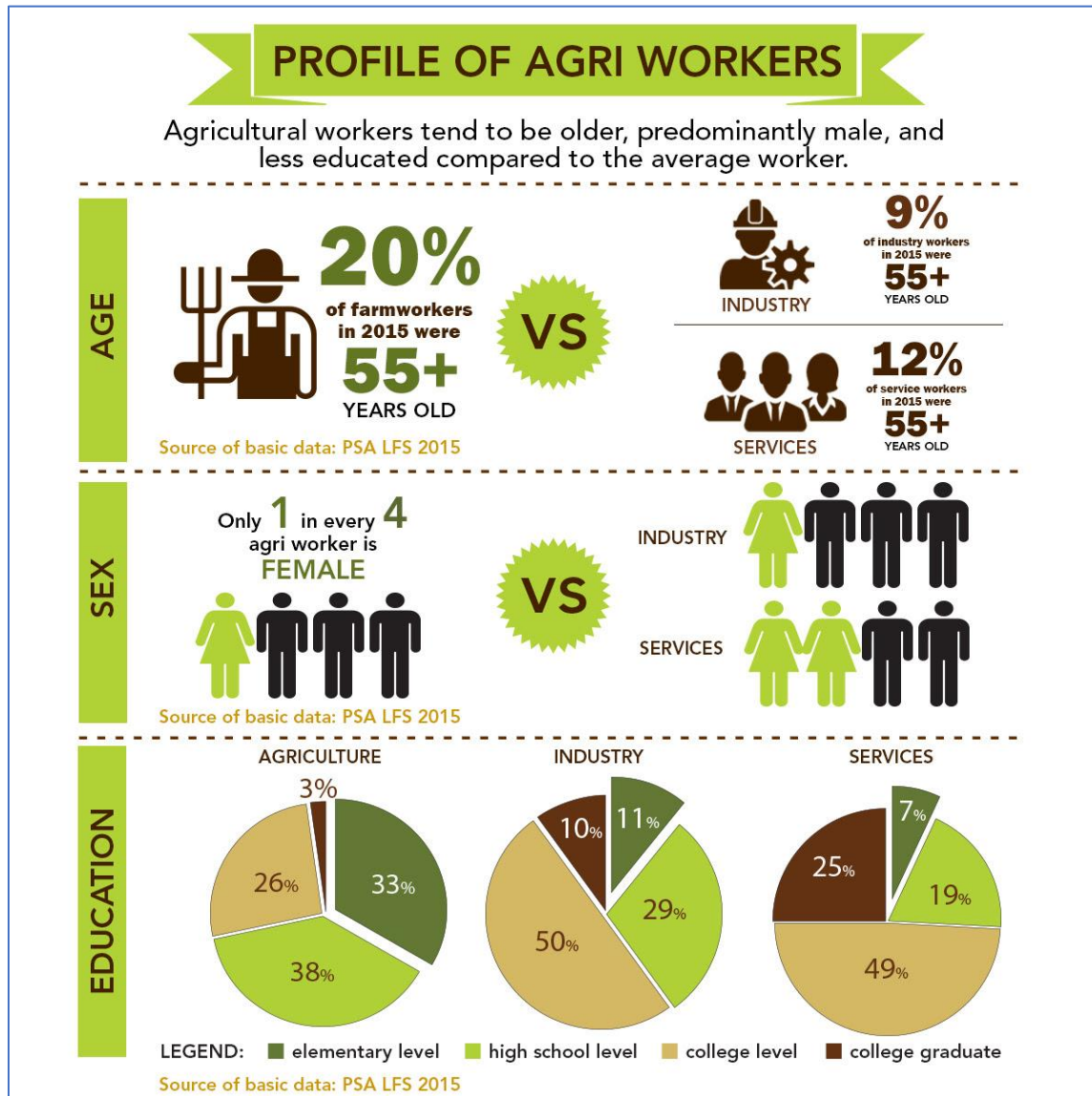


Source of illustration: PIDS 2017.

<sup>16</sup> Briones, in his study that characterizes agricultural workers, reviewed three secondary data sources namely Labor Force Survey, Family Income and Expenditure Survey, and Agricultural Labor Survey. He also considered other sources like the Census of Agriculture, Census of Population and Housing, and the Registry System of Basic Sectors in Agriculture.

Around one-fifth of workers in agriculture are visibly underemployed (defined as underemployed workers who express a desire for additional hours of work in the present job, in an added job, or a new job with longer hours). In spite of having only one-third of total workers, agriculture accounts for 59% of visibly underemployed in 2015 (Briones 2017). This could be due, among other reasons, on the seasonality of agriculture where underemployment declines during peak seasons (planting and harvest) but increases during off-peak season.

Figure 4. Profile of agricultural workers (Source: PIDS)



Source of illustration: PIDS 2017.

Lending to smallholders has been deemed to be challenging. And lending to agricultural workers who do not own farmlands is almost impossible. The Bangko Sentral ng Pilipinas or BSP mentions 5Cs as the main challenges of Agricultural Financing in the Philippines (2016), namely:

1. Cost – high transaction costs for financial institutions in lending to farmers due to geographical limitations, long funding cycles, large upfront costs
2. Credit History – financial institutions have limited knowledge about the credit history of borrowers, limited available documents
3. Collateral – lack of acceptable guarantees (i.e., land titles, proof of ownership of assets); weak institutions for protecting property rights
4. Contention – perception that poor cannot pay and are considered as high risk
5. Channel – lack of infrastructure for assessment, disbursements, loan collections, etc.

The Agricultural Credit Policy Council (ACPC) also noted the following constraints: a) weak capacity and lack of viable projects, b) high risk and cost of lending, c) lack of innovative loan products, d) limited information for lenders and borrowers, e) farmers are discouraged with borrowing from financial institutions. This paper's review of literature covers the constraints on the demand side of credit.

### **Credit gap**

Because of the constraints, the APCP estimates that the Credit Gap – what is required and what is provided – stands at Php 367 billion in 2014. The credit gap refers to the difference between the credit requirements of the priority commodities of the Department of Agriculture in 2014 and the financing supplied by banks in the same year. This gap also covers the credit needs of smallholders who found it difficult to borrow from financial service providers.<sup>17</sup>

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<sup>17</sup> The APCP, which is still using this 2014 data, plans to conduct an Assessment of the Credit Demand of Small Farmers and Fishers this 2018 to estimate/update the annual demand for loans of various farmers including smallholders (Personal Communication with the APCP).

Table 5. Credit Gap, 2014

Credit Gap, 2014 estimates (in PBillion)			
Major Commodity	Credit Requirement (PBillion)	Supplied by Banks (PBillion)	Credit Gap (PBillion)
Rice & Corn	226.7	56.1	170.6
Coconut	78.3	6.1	72.2
Sugarcane	29.8	14.3	15.5
HVCC <sup>1</sup>	80.3	37.7	42.7
Livestock & Poultry	88.1	37.6	50.5
Fisheries	21.7	6.5	15.2
<b>Total</b>	<b>524.9</b>	<b>158.3</b>	<b>366.6</b>

<sup>1</sup> HVCC include abaca, cassava, rubber, mango, coffee, banana, durian, lanzones, mangosteen, durian, oil palm, and other vegetables such as cabbage, onion, carrots, tomato, eggplant, white potato, cauliflower, broccoli, and habitchuelas

Source: DA Agricultural Credit Policy Council 2014

In 2014, the total amount of agricultural loans released by banks amounted to only Php 158.3 billion pesos. This amount represents almost a third of the total agricultural loans needed by the agriculture sector.

Table 7 shows the profile of borrowing from smallholders. It can be seen that the proportion of smallholders who borrow from formal sources increased while the proportion of those who borrowed from informal sources decreased.

Table 6. Profile of borrowing from smallholders

	2006	2008	2014
Proportion of smallholder borrowers	68%	63%	60%
Proportion of smallholders borrowing from formal sources	48%	52%	53%
Proportion of smallholders borrowing from informal sources	52%	41%	40%
Proportion of smallholders borrowing from both formal and informal sources		7%	7%

Source: Small Farm Indebtedness Survey culled from Geron et al. 2016

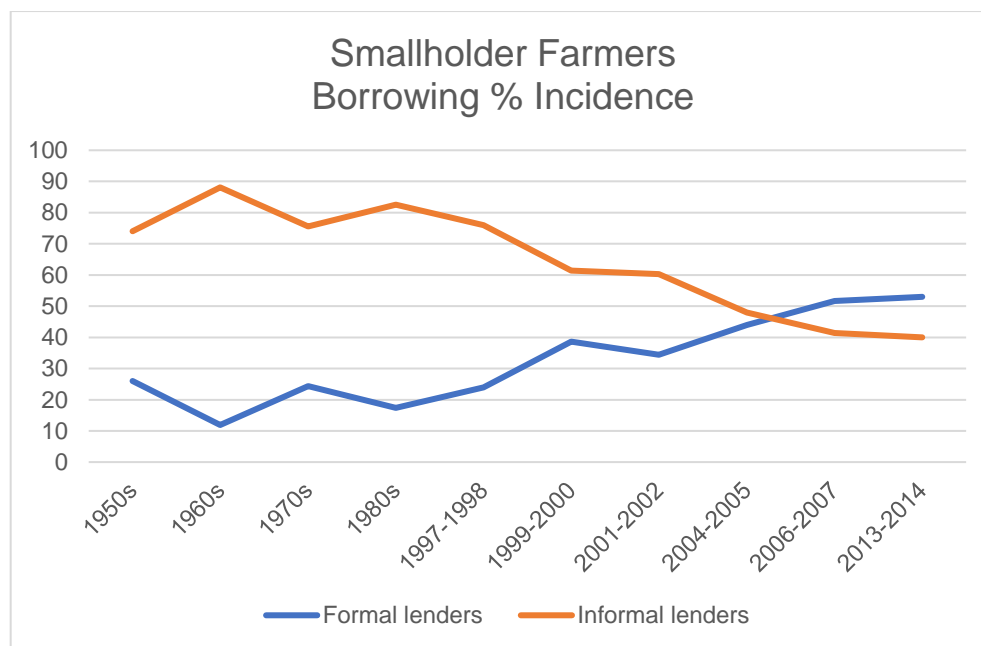
### Borrowing from informal credit markets

Informal credit markets remain an important source of financing for smallholders although their reach is waning. A study by the ADB showed that rural informal credit markets in Asia can still be



considered as an important sector, covering from 40-70% of total rural credit sources from different countries.

Figure 5. Smallholders Borrowing Incidence, 1950-2014



Source: DA-ACPC Presentation, IAVCC meeting 2017 and Bautista 1991

The Philippines has seen a shift of credit sourcing for rural borrowers. From a high of almost 90% of rural credit sourced from informal credit markets in the 1960s, the share of informal sources steadily dropped until the mid-2000s where formal credit sources overtook the informal credit markets for the percentage share of the rural credit market.

### Formal providers of production financing

In terms of production financing from formal sources, data from Geron et al. (2016) show that private commercial banks provided 90% of the total agricultural loans in 2014. Relative to rural banks, the commercial banks share of production loans increased from 2006 to 2014. LANDBANK's share increased from 10% in 2006 to 17% in 2014 and private commercial banks from 22% in 2006 to 38% in 2014. In contrast, the share of rural banks declined from 42% in 2006 to 27% in 2014. The same is true for thrift banks (from 25% in 2006 to 18% in 2014).

Geron et al. (2016) believe that the stepping up of private banks in providing agricultural loans in general and production loans in particular could be partly attributed to the deliberate shift from government, supply-led directed credit approach to a more market-based and demand-driven approach to agricultural lending.



### **Waning of microfinance and microfinance-oriented loans for the agricultural sector**

Finally, Geron et al. (2016) note that there seems to be a waning of microfinance and microfinance-oriented loans for the agricultural sector.<sup>18</sup> Microfinance institutions (MFIs) maximized the gap that was created by the halting of directed credit programs by moving in to address the needs of the market.

In 2012, there were 39 banks with micro-agri loans. This was reduced to 33 in 2013. The data from the Bangko Sentral ng Pilipinas, quoted by Geron et al. (2016), show that while there was around Php 496 million micro-agri loan portfolio in 2012, this was reduced to Php 259 million in 2013. The reasons for this waning are not yet reported.

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<sup>18</sup> In most cases, microfinance came from non-government organizations who extended loans to the unbanked and unserved sectors including smallholders and landless farmers particularly women. The familiarity of microfinance providers with the borrowers and the local economy enabled them to provide context-specific and tailor fit loans in accordance to the needs and cash flow of farmers.

## Part 2: Agriculture Value Chain Models



## **Conceptual framework: Wicked problems, business models, and partnerships**

Financing the requirements of agribusiness value chains involving smallholders, or what is termed as inclusive or sustainable value chains is an important, albeit difficult, aspect of agri-enterprise ventures.<sup>19</sup>

The elusiveness of models that work and could be scaled up or replicated could be traced to the “wicked problems” of agriculture in the Philippines. Wicked problems are deeply-etched and systemic that they resist solutions, let alone definitions. They are institutional in nature and thus, could not be addressed by one actor or one institution alone.

Most of today’s (remaining) problems of sustainable development – hunger, poverty, health, ecological degradation, education – are “wicked.” They are interrelated and materialize at the interface between public and private interests. They require other ways of thinking, but they also need the involvement of a variety of interested parties to work on solutions. Consequently, they are not easy to address, let alone solve.

Table 8 identifies the characteristics of wicked problems. It also identifies some of the characteristics of agriculture in the Philippines that make it a wicked problem.

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<sup>19</sup> The different members of the IAVCC have been engaged in various types of agribusiness endeavors. Some of these have worked (with varying levels of success) but many have also failed (with varying levels of failure) making sustainable value chains and inclusive business models – and the concomitant financing mechanisms - elusive.

Table 7. Characteristics of wicked problems and their manifestations in Philippine agriculture

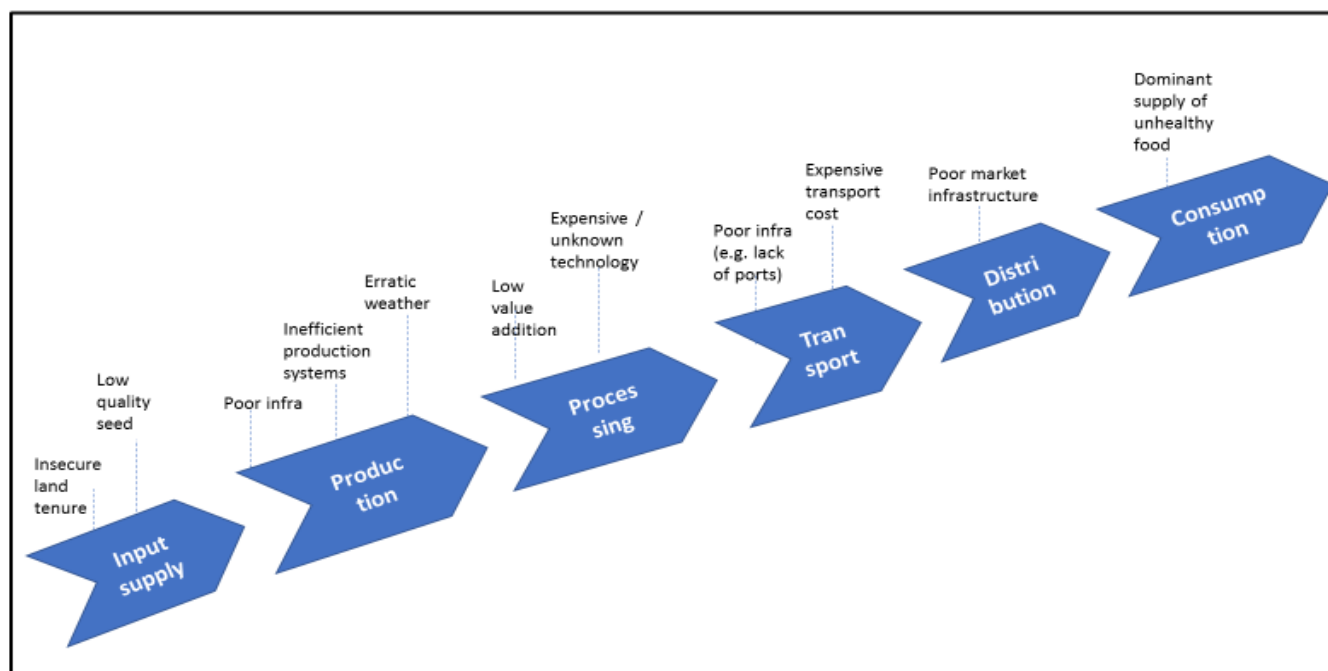
Characteristics of wicked problems	Some manifestations of wicked problems in Philippine agriculture
<b>Symptomatic:</b> Every wicked problem can be considered to be a symptom of another wicked problem; wicked problems are systemic.	The low farm income of smallholders puts them in situations where they could not access good quality education for their children and good quality health services for their families. Low quality schools and health services in rural Philippines are also a function of limited resources (including tax payments) of the local population. Unfortunately, low human capital contributes to low technology adoption, to limited farm yield, and to low farm income.
<b>Interrelated:</b> The problem cannot be understood in isolation; wicked problems are most of the time linked to other (wicked) problems; this makes information on them often incomplete and/or contradictory.	Smallholders lack farm capital, which makes them invest less in farm productive activities. This, however, makes them produce less crops and earn lower income. With low income, the farmers tend to scrimp on their farm capital.
<b>Urgent:</b> The greater the sense of urgency of an issue, the easier it is to align different interests; paradoxically, in case of modest urgency, the problem become more 'wicked': there are better solutions possible.	The various agriculture issues in the country are seen as important but most stakeholders do not view these problems as urgent. There are always more pressing problems like climate-related disasters that need urgent attention.
<b>Has no moral or optimal solution:</b> There are no right or wrong solutions, there is no optimal or final and correct solution; only better or worse approaches.	For their part, banks, particularly commercial banks, want to extend loans to smallholder farmers. Doing business could be good in populous rural areas. Moreover, lending to smallholders, particularly agrarian reform beneficiaries (ARBs), will improve their compliance to the Agri-Agra Law. But banks are hindered by the farmers' lack of financial records and their lack of capital; as such, for banks, borrowing to farmers entail high transaction costs and high risk. Good intentions and expensive regulations are not enough to enable lending to smallholders.
<b>Prone to denial:</b> Psychological barriers of addressing the problem are often considerable; the uncertainty about the consequences of one's (in)actions can make actors deny that the problem is their responsibility to act upon.	Agriculture issues in the Philippines are in the realm of public (national, local), private, and civic spheres. Accountabilities are spread making the problems and their solutions prone to denial.
<b>Unique:</b> Every wicked problem is relatively novel, therefore unique, and strongly context dependent.	Agriculture issues appear to be very peculiar in terms of crops, locations, stakeholders, and other considerations.
<b>Dependent on one's understanding:</b> One's understanding of a wicked problem determines the way one can resolve the problem. One might choose an inappropriate because of an inadequate understanding of the problem.	In many cases, the stakeholders understanding of problems is that it is a simple information gap: the buyers do not know the available demand and the farmers do not know the opportunities to sell to corporate buyers. Thus, they attempt to solve it through information sharing. But despite information platforms, buyers and farmers still do not engage in transactions.

<p><b>No ultimate test of a solution</b></p>	<p>Counterfactuals, or “what could be the situation if the intervention did not happen,” do not exist. Trying to set these up could be expensive. Moreover, despite efforts, wicked problems could only be partially modeled and thus, tested for intervention results.</p>
<p><b>No solutions:</b> Wicked problems could only be “approached;” and the approaches are manifold.</p>	<p>There are no one-off solutions to agriculture financing problems. As such, project-based or short-term program solutions do not work and often, these frustrate and disillusion stakeholders, making it difficult for them to work together or mobilize later on.</p>
<p><b>Different stakeholders with different responsibilities:</b> There are always multiple stakeholders involved which have diverging interest and different explanations for the appearance of the problem.</p>	<p>Stakeholders in Philippine agriculture e.g. government, companies, farmers, financial intermediaries, are often part of the problem as well as part of the solution and thus have different responsibilities.</p>

Source: The characteristics of wicked problems are from Rittel and Weber (1973) and Conklin (2005); the manifestations in Ph. Agri are researchers’ own analysis

Looking at the problems in Philippine agriculture from a value chain perspective, some of the key challenges are identified in Figure 3. Problems permeate the whole chain; moreover, these are interrelated requiring not just a single or a couple of “solutions.” Rather, these require systemic approaches or ones that consider the whole chain. The approaches also require stakeholders to work together to be able to create new systems or new institutions.

Figure 6. Problems in agriculture value chain



Source: Danilo Songco, PinoyME Foundation

## Wicked problems and institutional voids

Institutions are the formal and informal rules of the game (North 1990; Greif 2005) and they serve important functions in societies including providing support to the operations of a business transaction. Wicked problems create institutional voids or gaps. Van Tulder and Keen (2016) categorized institutional voids to be first order, second order, and third order in nature.

First order challenges are failures on the part of each societal sector (government, market, and civil society) to deliver its principal value to society (Kolk, Van Tulder, and Kostwinder et al. 2008 quoted in Van Tulder and Keen 2016). This means that the core functions of organizations towards their primary stakeholders or principals are not being done. This includes governments failing to provide public goods like infrastructure or not regulating land uses in rural areas and civil society organizations not organizing smallholders. These failures, regardless of reasons, create negative externalities.

Second order challenges are situations where societal sectors refuse to extend their influence beyond their primary stakeholders. In these types of challenges, governments, companies, and civil society organizations are not doing anything that transcend their scope or influence. This could mean government agencies regulating firms and banks but not exerting efforts at improving the capacity of firms and banks to comply with the regulations. This could mean companies not undertaking corporate social responsibility or civil society organizations not undertaking social enterprises. They do not want to stimulate, utilize, and expand their positive effects (or externalities). Their insufficient actions increase the degree of wickedness of problems.

Third order challenges are situations where there is insufficient collective action taken by all three societal sectors at the same time (Byrson et al. 2015; Van Tulder and Van Der Zwart 2006 quoted in Van Tulder and Keen 2016), which create wicked problems (PrC 2016) or systemic societal problems (Confesor 2012). These challenges represent the part of the societal set-up that requires the participation of all sectors in society, which do not feel responsibility and only see the risks of getting involved.<sup>20</sup>

There are two possible approaches to wicked problems.

First, inclusiveness and sustainability should be aligned with the business models<sup>21</sup> of societal sectors. This is particularly true for companies. Inclusiveness and sustainability begin with the intent, the value proposition, and the business case. Company leaders realize that their competitive position can be enhanced by aiming at inclusiveness and sustainability. They move from value added to shared value creation and become inspired by societal needs instead of market needs only (Van Tulder forthcoming).

Leaders of companies with these business models are convinced that without a sustainable solution or approach, there is no business anymore. Their business models are “societal,” and they have business leaders who understand that they cannot effectively address an issue without involving other stakeholders including competitors. Anthony Burgmans, chairman of Akzo Nobel and former chair of Unilever, says these business models combine “inclusive business” and “inclusive growth.” Paul Polman, CEO of Unilever, articulates Unilever’s business model in this manner: “in a society that fails, I cannot thrive as a business.” They are open to partnerships with other societal sectors, even their competitors, for inclusive value chains and inclusive business goals.<sup>22</sup>

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<sup>20</sup> This relates to the literature on Network Externality. When more agents in the market use the same product (i.e. formal rural credit institutions, MFIs), the better it will become in terms of service, cost and efficiency. As more players enter into the market, the services will become better and will have an improved position in addressing institutional voids.

<sup>21</sup> Vermeulen and Cotula (2010) state that a business model is a way in which a company structures its resources, partnerships, and customer relationships in order to create or capture value – in other words, a business model is what enables a company to make money.

<sup>22</sup> Van Lakerveld and Van Tulder (2017) developed a business model taxonomy (from inactive to reactive to active to proactive business models) that indicates the position of companies vis-à-vis inclusiveness and sustainability. Inactive business models are classic business cases where inclusiveness and sustainability are taken on if these will improve efficiency and thus increase income and reduce cost for the company. This business model wishes to DO THINGS RIGHT and in general, undertakes “corporate self-responsibility”. Reactive business models are defensive business models where the motivation for inclusiveness and sustainability is a response to stakeholders’ demand. This model is motivated by “negative duties,” wishes

Financial service providers (like banks and microfinance institutions), civil society organizations (like cooperatives and non-government organizations), and national and local government agencies have business models, too. These organizations need to deliver goods and services to people, including smallholders, as part of their mandate. However, these stakeholders are often limited or hindered by systemic problems. With strategic and societal relationships with other stakeholders, inclusiveness and sustainability could be enhanced in the business models of these institutions.

Second, wicked problems need cross-sector partnerships. Even if firms become inclusive, wicked problems still need other stakeholders (i.e., financial service providers, CSOs, government agencies) who are also embracing inclusiveness and sustainability and undertaking measures to address important systemic goals. Complex processes (such as issues on inclusive development involving smallholder farmers) are unlikely to be caused by a single factor or agent. Rather, they develop as a result of multiple causes. No one actor can also address wicked problems. Only by using complementary resources and capabilities from different societal spheres (government, business, and civil society), can wicked problems be addressed.

Cross-sector partnerships or CSPs (composed of government, business, and civil society), as an approach, is considered to be needed, viable, and constructive in addressing interrelated and systemic problems (PrC 2010; Seitanidi and Crane 2014). It is not separate actors but their relationships that shape the relevant change (Glassbergen 2011 quoted in Van Tulder and Pfisterer 2013).

Cross-sector partnerships have partners that:

- ✓ Originate from different societal spheres;
- ✓ Share (developmental) a common vision, goals, and objectives;
- ✓ Benefit from complementarity in resources and competencies;
- ✓ Interdependent and interactive;
- ✓ Voluntarily collaborate and contractually agree;
- ✓ Mutually agree at the division of labor (and resources);
- ✓ Share in the decision making;
- ✓ Share responsibilities, risks, and accountabilities; and
- ✓ Have informal trust-based relationships alongside formalized relationships (PPP Lab Insight Series 01).

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NOT TO DO ANYTHING WRONG, and in general, undertakes "corporate social responsiveness". Active or strategic business models are clear on the vision and concludes that without a sustainable solution or approach, there is no business, e.g. without smallholder agriculture, there is no business at all. This model is motivated by "positive duties," set on DOING THE RIGHT THINGS, and generally undertakes "corporate social responsibility". Proactive or societal business models involve external stakeholders (even competitors) because of an understanding that an issue could not be addressed without partnering for change. It combines "inclusive business" and "inclusive development" to undertake, "corporate sustainable responsibility."



Cross-sector partnerships capitalize on the relative advantages of the stakeholders. Their relationships, dynamics, and cultures create new institutions that could fill the institutional voids or address the wicked problems.

High barriers limit the flow of financing in agriculture value chains making it difficult for smallholders to join profitable chains. As will be shown in the models, value chain financing was possible through partnerships among societal sectors. The societal sectors engaged in relationships based on shared value creation or on mandates that were enhanced by being more strategic, inclusive, and societal. The partnerships were embedded, long-term, and these provided the enabling environment for addressing costs and risks and as such, for financing to flow in agriculture value chains.

## Research framework

In the context of wicked problems or institutional voids, this research answers two questions:

- a) What are the generic elements or conditions of inclusive agriculture value chain models?  
and
- b) What are the conditions for inclusive agriculture financing?

To be able to get the data and analyses, case studies were undertaken on select models. An action research was undertaken on the Farmer Entrepreneurship Program and the Saradit na Kristiyanong Komunidad Rice Processing Center. The action research is an iterative process involving the EMIT C4C of the University of the Philippines and the Rotterdam School of Management of the Erasmus University and the practitioners (e.g. Jollibee Group Foundation, PinoyME Foundation, and their partners).

The three cases are diverse in regard to crops (high value crops like onions and vegetables and staple crops like rice and corn), location (Luzon, Visayas, and Mindanao), and off takers. The diversity allowed the action research to come up with lessons that sift through the area and crop contexts.

For the case studies, three data gathering methods were used:

- Desk research – Includes a review of relevant literature on sustainable business models, agriculture value chains, and value chain financing as well as internal documents of stakeholders (e.g. financial reports, brochures, reports to shareholders and funders); and
- Key informant interviews – Includes interviews with key officials of companies, groups of smallholder farmers, and financial service providers; and
- Focus group discussions – Includes interviews with “homogenous groups” of stakeholders such as members of farmers’ cooperatives and staff of corporate foundations.

The indicators, key questions, and sources of information are in the annex of this paper.

## **Discussion flow of each model**

The discussion of the models follows a similar flow. The first part covers the introduction including the important highlights of the cases. It then goes into a discussion of the timeline as well as the wicked problems that were confronted by the stakeholders. Afterwards, an estimation of the farmers' situation is undertaken through the farmers' recall of their situation prior to the programs.

The discussion then focuses on the inputs or interventions of the program, which often include agriculture financing. Then it delves into the program results and the strategies that contributed to the achievement of results.

After the results, the discussion zeroes in on breaking the financial barriers or the generalization on how financing flowed in value chains which enabled smallholders to engage with corporate or major buyers. That part is followed by a discussion on risks and social investments. The conclusions, per model, go back to the big picture, to generalizations about the generic conditions for inclusive agriculture value chains. The models end with recommendations.

## Farmer Entrepreneurship Program (FEP)



During the Strategic Planning of the Board of Trustees of the Jollibee Group Foundation (JGF) in September 2007, members of the Board deliberated on how JGF can significantly address rural poverty. The challenge posed by the board members was, "Jollibee Foods Corporation as a food company requires raw materials that farmers produce and can make itself available as a direct market to the smallholder farmers. Can Jollibee Group Foundation make this work?" (Gisela Tiongson, interview, August 7, 2017).

This mandate led the JGF management team to work on something that was largely untraversed. Gisela Tiongson, JGF Executive Director, remembers JGF President Grace Tan Caktiong directing the JGF staff to find the best way to get this done in a way that would benefit the farmers the most. Belen Rillo, JGF Vice President and retired JFC executive who used to handle the JFC Commissary, gave practical directions to help the farmers meet the quality and food safety requirements of the company (Gisela Tiongson, interview, August 7, 2017).

The Farmer Entrepreneurship Program (FEP) is a package of interventions that enables smallholders to be able to sell to corporate buyers like Jollibee Foods Corporation (JFC). From 2008 to 2014, around 1,800 farmers were assisted across 28 project sites. Most of them have already delivered different products to JFC and to other buyers including supermarkets, restaurants, food processors, local traders, and wet markets. The enabler of this market transaction between the smallholders and the corporate buyers is the Jollibee Group Foundation,

which was joined by two other institutions, Catholic Relief Services (CRS) and National Livelihood Development Corporation (NLDC), in implementing the FEP during the program's first seven years. Since 2015, the program is managed by JGF in partnership with local institutions like cooperatives, local government units, microfinance institutions and social enterprises.

The action research project examined two groups: a) the Kalasag Farmers Producers Cooperative from Nueva Ecija and b) the smallholder farmers from Cebu assisted by the Lamac Multipurpose Cooperative (Lamac MPC). The modalities of interventions differ between the two groups, and both serve as examples of what smallholders can achieve if provided with a set of interventions.

Kalasag is a farmers' group in San Jose, Nueva Ecija that was included in the pilot phase of FEP. The name "Kalasag" is a combination of two barangays (villages) in San Jose City: Kaliwanagan and San Agustin. Fifteen farmers from Barangay Kaliwanagan and 15 from Barangay San Agustin were recruited to become members of the agro-enterprise clusters that were formed in 2008.<sup>23</sup> Clusters are barangay-based small and informal groups formed by the program to serve as product supply units that can consolidate and deliver to various markets.<sup>24</sup> From two farmer clusters, Kalasag has become a farmers' cooperative. At first, Kalasag received an essential set of interventions (clustering, production financing, and accessing JFC as buyer) but afterwards, when it was able to continuously deliver to JFC and pay its loans, other stakeholders took notice and provided other inputs like farm machines and equipment. In 2009, during its first delivery to JFC, Kalasag delivered 60 metric tons (MT) of white onions to JFC. It sold more than 730 MT of white onions to JFC in 2017. As of August 2017, it sold more 24 MT of hot pepper to JFC and deliveries continued for the rest of the year.

The farmers from Sudlon II, Cebu City, and Dalaguete, Cebu, have similarities with Kalasag. They too were provided with the same essential and complete set of interventions – clustering, production financing, and accessing JFC as buyer – but instead of gearing them to become formal groups or juridical entities, they became members of Lamac Multipurpose Cooperative (referred to the rest of the document as Lamac MPC). The Lamac MPC traces its roots to the *Samahang Nayon* or village association that organized the agrarian reform beneficiaries, tenants, and other tillers in the Lamac valley. Lamac MPC now has around 76,000 members being serviced by 25 branches in Cebu and select provinces in the Visayas. Lamac MPC joined the FEP as a partner in 2013 and started targeting hotels and supermarkets as buyers of farmers' products. By 2017, the Lamac MPC-assisted FEP farmers were able to deliver assorted vegetables to 20 Chowking stores, 7 Metro Gaisano supermarkets, 3 hotels, and other buyers all over Cebu City.

The Kalasag farmers are part of the pilot batch of FEP. Of the five groups that were part of the pilot, only the Kalasag farmers remain to be a partner of JGF. The conditions that allowed financing to flow to these farmers are worth examining. Kalasag delivers directly to JFC Commissaries, that distribute the food products to JFC stores nationwide. With Lamac MPC, JGF piloted the direct-to-store mechanism where the farmers, with the intermediation of Lamac MPC, sell directly to Chowking and other stores rather than the commissaries. Both the Kalasag farmers and the smallholders assisted by Lamac MPC illustrate what farmers could achieve if enabled to

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<sup>23</sup> "A barangay," formerly referred to as "barrio," is the smallest administrative and territorial unit in the Philippines.

<sup>24</sup> Clusters, composed of 15 smallholders, are means for farmers to participate in business planning, implementation, and assessment.

participate in bigger and formal market transactions organized within value chains that intended to be inclusive.

## Context: Wicked problems faced by smallholders in high-value crops

In general, smallholder farmers cannot maximize the economic value of their products because they are forced by circumstances to sell to agents, traders, assemblers, and other traditional middlemen. This is particularly true for farmers producing high-value crops. Big buyers of high value crops (e.g., exporters, supermarkets, or large processors) usually serve as the drivers of well-coordinated value chains. Often, they set the demand for agriculture products in terms of type, quality, quantity, and timing of delivery. But in most cases, smallholders find it difficult to meet the requirements so they join the value chains through agents, traders, assemblers and other intermediaries (FAO 2015). The following challenges are faced by smallholders planting high-value crops.

1. They have limited access to formal finance because serving them is perceived as risky and will incur high transaction costs. For smallholders in high-value crops, production financing is a huge cost in terms of inputs, maintenance, and labor. It is far more expensive than planting commodity crops like rice or corn. Table 9 shows the costs and returns for select high-value crops.

Table 8. Costs and returns, select crops, 2015 (Php per hectare)

Crop	Average costs (cash, non-cash, imputed)	Average gross returns	Average net returns
Rice (irrigated <i>palay</i> )	53,313.00	88,914.00	35,601.00
Corn (white & yellow)	24,367.00	39,045.00	14,688.00
Red onion*	165,117.00	206,000.00	40,883.00
White onion*	144,945.00	219,600.00	74,655.00
Tomato	90,226.00	163,366.00	73,140.00

Source: The information on rice, corn, and red onion are sourced from the Philippine Statistics Authority (2015), Selected Statistics in Agriculture 2015. Data on red and white onions are from PRDP's Onion value chain analysis for Luzon A Cluster (2014).

\*2013 data for Nueva Ecija

On a per hectare basis, the cost of planting white onion is higher than the cost of planting rice by Php 91,632.00 (or 63%) and to the cost of planting corn by Php 120,578.00 (or 83%). Similarly, the cost of planting tomatoes is higher by 41% to the cost of planting rice and 73% higher to the cost of planting corn. Farmers without access to financing and without reliable buyers might find it difficult to plant high value crops on a regular basis.

2. In most cases, smallholder farmers also have limited access to farm technology. Agriculture extension, being a devolved function of the state, is lodged with local government units and the delivery of this important service is at best spotty or dependent

on the mayor and other local officials. Agriculture extension services are meant to improve the technical capacity of farmers in plant production, care, and management.

High-value crops have an additional complication. Compared with rice and corn where there are numerous experts and centers providing information on better-performing inputs, cropping patterns, and other services, there is lesser expertise and dedicated centers on high-value crops. The major problem on pests that targeted red and spring onions (e.g., cut worm or *harabas*) led former Nueva Ecija City Mayor Marivic Belena to look for help all over Luzon and the expert advice was to let the land rest to be able to eradicate the pests. That proposal might be technically sound but she knew that it will not be followed by the farmers given that onion production was their main source of income. Her search led her to partner with JGF and thus JFC, where the demand was for white onions, known technically as yellow granex onions, which was unaffected by cut worms and other pests (Marivic Belena, interview, August 8, 2017).

3. Smallholders have small farm sizes. The average land size for smallholders is 1.2 hectares. This is small even for the production of high-value crops that only need small plots. Aside from small land sizes, insecure property rights also permeate the rural landscape. Issues on land administration and management result in overlapping titles, non-subdivided collective land titles, and titles remaining with farmers who have already passed on the tilling and management of the land to heirs or buyers. In Sudlon II, Cebu, the land being tilled by the FEP farmers is a protected area but landowners are believed to own portions of the land. FEP farmers pay annual rent to these "landowners" through face-to-face, largely informal, transactions.
4. Many smallholders are not organized and as such could not reap the benefits of economies of scale or size. Individual farmers have higher production costs as compared to farmers who have bigger land sizes or those who are part of cooperatives.
5. The cost of logistics in the country is prohibitive. The archipelagic nature of the Philippines and the inconsistent policies for using roads are barriers in transporting agricultural goods.
6. In relation to logistics, there is uncoordinated delivery of rural infrastructure in the Philippines and while this is increasingly being addressed, there are many places not reached by decent roads and many instances of local roads like farm-to-market roads which are not connected to main roads. For smallholders planting high-value crops, the prohibitive cost of logistics and the lack of or uncoordinated delivery of rural infrastructure are crucial issues because high-value crops are highly perishable and naturally, buyers demand good quality and timing for these products. Delays could result in low buying price or being rejected by buyers.

Those challenges contribute to low productivity, high cost of farming and farm-entrepreneurship, and consequently, to low farm income for smallholders. The reverse is also true: not having sufficient income leads to low investments in production. Since this cycle continues every cropping, smallholders are trapped in a low-income trap. In general, these interlocked problems hinder the access of farm households to quality education and healthcare, making it difficult for them to diversify their income stream and obtain a chance to improve their quality of life.

All of these are symptoms of a wicked or systemic problem. Wicked problems are complicated and deeply-etched that they are hard to unpack, symptomatic of other systemic problems, interrelated and thus, cannot be understood in isolation, seemingly unique because of strong context dependence, and having no optimal solution (only better or worse approaches). The wickedness lies in the fact that the issues are in the interface between public, private, and social interests and as such, these “are not easy to address, let alone solve” (PrC-RSM 2016).

## **Timeline of the program**

The beginnings of FEP could be traced from the 2007 JGF Board Meeting, although the values and principles behind it were already embraced by JGF with its earlier programs – think in systems, harness core strengths of the organization and work collaboratively.

The phases of FEP could be analyzed into four junctures spread from 2007 to 2017 (Table 10).

Overall, by 2017, the FEP partners with 22 farmer groups composed of 12 existing suppliers and 10 new groups undergoing training. The program is in 19 sites in 11 provinces of the country. Since 2009, when the Kalasag farmers and the other pilot groups started delivering to JFC, over 4 million kilos have already been delivered by smallholder farmers from different sites.

Moreover, by 2017, 60 Kalasag farmers were also accredited by the Department of Agriculture (DA) on good agricultural practices (GAP) for white onions. This was a response to the JFC Quality Management’s launch of the company’s GAP roadmap and target for all its suppliers to be GAP-accredited by 2018. JGF developed an approach to facilitate GAP accreditation of smallholder farmers and invited the DA for assistance.<sup>25</sup> The DA trained the farmers on proper usage of fertilizers and pesticides, disposal of wastes, and keeping the records of all inputs and outputs as well as costs and returns. The farmers assisted by Lamac MPC, for their part, are already delivering vegetables to 20 Chowking stores, 7 Metro Gaisano supermarkets, 2 hotels, 1 religious seminary, and 1 caterer. These farmers are being capacitated on GAP as of December 2017.

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<sup>25</sup> JGF hired a consultant to develop a framework on GAP implementation for smallholder farmers and implementation strategies for all FEP sites.

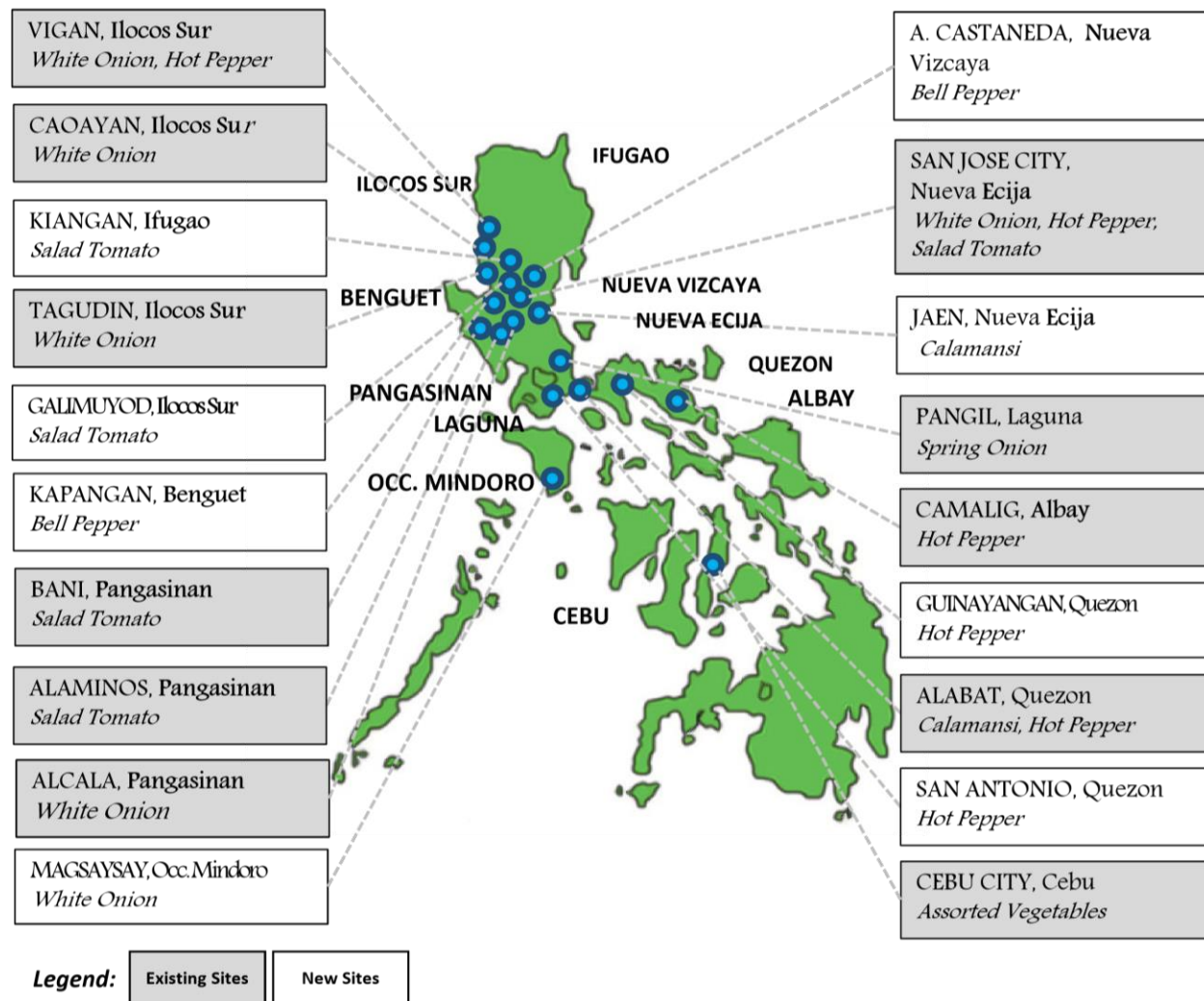
Table 9. Timeline of FEP

Phase 1: Setting up the partnership for the FEP	Phase 2: Piloting the program	Phase 3: Expanding the program	Phase 4: Refocusing the program
<b>Period:</b> Sept 2007 – April 2008	<b>Period:</b> May 2008 to Dec 2010	<b>Period:</b> 2011 to early 2014	<b>Period:</b> End of 2014 to end of 2017
<b>Highlights:</b> <ul style="list-style-type: none"> <li>- Discussions and agreements on objectives, motivations, and desired goals</li> <li>- Formalized the partnership through signing of a Memorandum of Agreement (MOA) among the program partners</li> </ul>	<b>Highlights:</b> <ul style="list-style-type: none"> <li>- Site selection based on presence of crops and existing partnerships</li> <li>- Training, mentoring, and coaching of farmers on the 8-step agro-enterprise clustering approach</li> <li>- Securing financing for clusters</li> <li>- JFC’s accreditation of farmer clusters</li> <li>- Conduct of test market deliveries</li> <li>- Meetings with different stakeholders (e.g. DA to explore farmer financing, the NFA for the enhancing of rice mills in Nueva Ecija, and seed companies to provide samples, production trials, and extension services)</li> <li>- Market learning visit and quality orientation provided by the JFC Purchasing and JFC Quality Management</li> <li>- Continuous capacity building of farmers and local partners</li> </ul>	<b>Highlights:</b> <ul style="list-style-type: none"> <li>- JGF began linking FEP groups to its business network                             <ul style="list-style-type: none"> <li>o CDO</li> <li>o Foodsphere</li> <li>o Waltermart</li> <li>o Supermarket consolidator</li> </ul> </li> <li>- Conduct of 2 batches of FEP training for site working groups (SWGs).</li> <li>- Test marketing of products from new groups</li> <li>- Conduct of 1<sup>st</sup> Farmer Leaders Training</li> <li>- Creation of core group as part of the Program Partnership Management Structure</li> <li>- Introduction of the FEP Development Framework to monitor the varying progress of the groups and sites</li> <li>- Discussions with academic institutions that are part of the SWG to produce case studies</li> <li>- Conduct of the Preliminary Study of the Asia-Pacific Policy Center</li> </ul>	<b>Highlights:</b> <ul style="list-style-type: none"> <li>- Transition planning for partnership rearrangement by JGF, CRS, and NLDC. This was cascaded to all the FEP sites</li> <li>- Piloted the direct-to-store modality with Lamac MPC delivering to Chowking branches in Cebu City</li> <li>- Implemented the FEP Leadership on Agro-enterprise Development (LeAD)</li> <li>- JGF worked closely with the JFC QM to plan and target farmers’ GAP accreditation</li> <li>- Invited application for new partners</li> <li>- JGF partnered with STI Foundation to develop the curriculum for agro-enterprise and co-conduct the Agro-enterprise New Facilitators’ Training</li> <li>- Launched the FEP Advocacy Agenda with the youth and academe as target sector</li> <li>- JGF partnered with the University of the Philippines and Rotterdam School of Management of Erasmus University for the conduct of an action research on FEP and two other cases</li> </ul>

Source: JGF, “History of the Farmer Entrepreneurship Program (FEP),” summarized by the researchers.



Figure 7. Sites, partners, and products of the FEP as of October 2017



Source: FEP Fact Sheet, October 2017

## Pre-FEP and early FEP situations<sup>26</sup>

Prior to the program and during its early stages, the situation of the farmers could be described in terms of four themes: a) buyers, b) financing, and c) leadership.

### Buyers of products of smallholders

In regard to the buyers of their products, the Kalasag farmers distinctly remember two pre-FEP junctures. Some of them delivered to Taiko Philippines and Farm Fresh, two export-oriented businesses that exported onions to Japan. While Taiko Philippines operated in Barangay San Agustin, Farm Fresh operated in Barangay Kaliwanagan. At that time, around late 1990s, the farmers described onion production to be favorable because their costs were low, they had a regular market, and the weather was not erratic. But after a few years, both Taiko Philippines and Farm Fresh folded up. The farmers were told that the business shifted to China (A. Dizon and W. Gomez. interview, July 20, 2017).

The latter juncture, which were the years after the export market ended and just before FEP (approximately from 2000 to 2007), was sadder for most of the farmers. Many of them sold red onion and spring onion to agents and traders and the buying price was erratic. Frederico Dizon, a Kalasag member, recalls a year when, despite incurring huge production costs, the price of red onion was just Php 2.00 per kilo (F. Dizon, interview, July 21, 2017). Wencilito Gomez, Kalasag's General Manager, even remembers the price plunging to Php 1.00 per kg. (JGF 10<sup>th</sup> Year Commemorative Book). In those instances, the farmers did not harvest the onion because labor and hauling costs would just add to the expense.<sup>27</sup>

Farmers from Sudlon II, Cebu City, remember that before FEP, they had no buyers except the traders who bought within the community or the buyers in the wet market. When there was overproduction of certain crops, the prices of traders went very low, they just stopped buying from farmers. The smallholders did not have a mechanism to coordinate with one another to prevent supply glut.

Alijandrin "Renren" Ocariza, a cluster leader from Sudlon II, shared that prior to FEP and before becoming a member of Lamac MPC, he had two buyers: one, he sold lettuce, his main crop, to his "*suki*" (favorite buyer/customer) in the Carbon wet market / terminal, and two, he sold his other vegetable products to agents and traders in Sudlon II. He said buyers from Carbon gave higher prices than buyers in Sudlon II. He cautioned, however, that only a few farmers have a *suki* in Carbon, as such, this choice was not available to all farmers.<sup>28</sup> Also, even if Renren Ocariza had a *suki*, this person only bought lettuce and no other vegetables because the *suki* is also

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<sup>26</sup> FEP was not able to gather key information about the farmers at the start of their intervention. Attempts are made to reconstruct the baseline situation, particularly on farm costs and returns, from the stories of farmers.

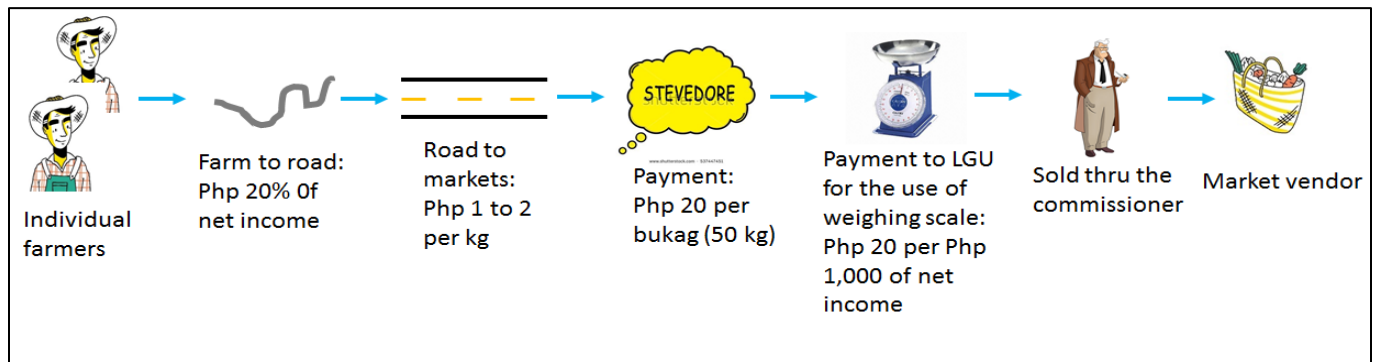
<sup>27</sup> In 2006-2007, pest infested the onions of Nueva Ecija prompting then Mayor Marivic Belena to look for technical assistance. Experts told her to rest the land to stop pests from growing and spreading.

<sup>28</sup> Catalino Panaginip, another cluster leader from Sudlon, remarked that the Carbon market is only for those who can endure endless haggling (*tawaran*). The tendency is for prices to plunge (interview on 6 Aug. 2017).

committed to buy from other farmers and agents. There were also times when his *suki* did not even buy all of his delivered lettuce<sup>29</sup> (A. Ocariza, interview, August 5, 2017).

The farmers from Dalaguete, Cebu, shared their pre-FEP situation in regard to their buyers. In 2014, smallholder farmers produced various vegetables and sold these in Mantalungon and Nug-as, markets that are approximately 18 to 20 kilometers from their farms. To be able to do this, they need to go through several processes and thus, incur costs. First, they need to haul the vegetables from their farms to the main road and usually, this means spending 20% of their net income for this expense. Second, they need to haul the produce from the main road to Mantalungon and Nug-as by hiring vehicles that costs them Php 1.00 to Php 2.00 per kg. of vegetable. Third, in the market, the smallholder farmers need to hire stevedores to carry their produce and this costs around Php 20.00 per 50 kilos. Fourth, they need to pay the local government for using the weighing scale and this entails cost amounting to around Php 20.00 per Php 1,000 of their net income. Fifth, the smallholders could only sell to “commissioners” in the wet markets. Commissioners are middlemen who secured permits and paid fees to the local government to be able to receive the vegetables of farmers and sell these to market vendors. For this transaction, they earn commissions.<sup>30</sup> In general, the farmers went to Mantalungon and Nug-as markets without knowing the buying prices. In some cases, they returned home with income that was less than the costs they spent for production. In 2014, the farmers remember that the commissioners bought their products for the following price: cabbage for Php 3.00 per kg., pechay for Php 5.00 to Php 8.00 per kg., eggplant for Php 15.00 per kg., and spring onion for Php 80.00 per kg.

Figure 8. Value chain of Dalaguete, Cebu farmers prior to FEP



<sup>29</sup>There were times when Renren also tried renting a stall and selling vegetables in Carbon. He immediately gave this up because the market usually operates at night and he had no strength to undertake farming during the day and then sell vegetables at night.

<sup>30</sup> It can be seen that while the commissioners technically did not add value to the products and did not provide any service to the value chain, they added transaction costs to the farmers thereby lessening the latter’s farm income. The commissioners pay Php 1,600.00 to the LGU to be able to perform their role.

## Financing

The Kalasag farmers and the farmers assisted by Lamac MPC (both in Sudlon II and Dalaguete) had no access to formal financing prior to FEP. While some of them might have had financing in the distant past, either this was not systematic (not part of a program) or not related to farming.<sup>31</sup>

By the time FEP was being introduced in 2008-2009, most of the Kalasag farmers had no existing access to formal agriculture financing. The farmers recalled that during this period, they borrowed from moneylenders (5-6) who asked for 25% interest rate for every 4 months, which meant a monthly rate of 6.25%. There were times that the buying price of onion were low and they had difficult time making ends meet and paying their loans. The women farmers also had no other means of employment and they sought loans from moneylenders (FGD with Kabiyaq, 8 Aug. 2017).

For the Kalasag farmers, when prices were low, when rains hit hard, or when pests were not managed, they dealt with shocks by pawning their land, the documents of their vehicles and farm animals, and their jewelry so they could undertake production<sup>32</sup> (A. Dizon, interview, July 20, 2017; F. Dizon, interview, July 21, 2017). The farmers remember that prior to FEP, many of them had to lease their landholdings, some of them agrarian lands, because they needed cash for their household and farm needs. The farmers had no source of formal financing for their various needs.

The situation is similar to the farmers from Sudlon II and Dalaguete who were assisted by Lamac MPC. In Sudlon II, Renren Ocariza had no source of formal financing; thus, he was not able to fully utilize his land and harvested fewer crops than the volume he harvests with the FEP (A. Ocariza, interview, August 5, 2017). Other farmers also shared that prior to FEP, they were not able to maximize the landholding they occupied because of lack of access to financing.

In Dalaguete, the farmers also remember not having resources to fully utilize their landholdings. In 2015, Lamac MPC made production financing available to the FEP farmers in Dalaguete's Cluster One. It was a tipping point, with Lamac MPC triggering the financial inclusion of smallholders. With this, the smallholders said they were able to improve their production and subsequently, their harvest. It could be argued that the farmers' productivity increased because of the agriculture technology services provided by Lamac MPC, which complemented the farmers' financial inclusion. But during this time in 2015, there were still no direct buyers like Chowking and Metro Gaisano Supermart and no hauling facilities were involved. It was only in 2016 that they accessed institutional markets, when Lamac MPC implemented a combination of access to finance, clustering of farmers, presence of Chowking and other buyers, and started hauling services.

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<sup>31</sup> Ellen Limocon, the general manager of Lamac MPC, was aware that many farmers, including the ones they serve under the FEP, have had negative experiences with lending.

<sup>32</sup> According to Esguerra (1993), surrendering the ownership titles for pledged assets is an attempt of informal lenders to deny borrowers the chance to borrow from other lenders hence preventing them from having multiple obligations that could jeopardize their repayment. It also prevents borrowers from selling the asset before the loan is repaid. Moreover, it is a convenient way to screen borrowers in regard to their ability to repay.

## Leadership

The Kalasag farmers were shy and lacking confidence before FEP. GM Wency Gomez remembers that he was so shy he trembled whenever he needed to speak in front of an audience. JGF President Grace Tan Caktiong also remembers that when the Kalasag farmers were just starting their deliveries to JFC, she spoke with them but they were nervous and shy. She recalls that their eyes were downcast and they did not look at her during their conversations (Grace Tan Caktiong, interview, August 15, 2017).

The JFC Purchasing Group's assessment of Kalasag in 2008 (La'O 2016) summarizes their condition. Based on a standard set of criteria, they note that the farmers had:

- No strong leadership;
- No prior experience in entering into business contracts and selling to institutional buyers;
- Financial constraints;
- No storage capacity; and
- No form of transportation.

But the JFC Purchasing Group also underscored that the Kalasag farmers had an advantage:

- The quality of the sampled white onions passed the quality control of JFC; and
- They have the support of JGF and FEP partners.

In Sudlon II, Renren Ocariza remembers that prior to FEP, he did not go to capacity building activities and did not join organizations. He did not have any leadership or managerial roles and did not coordinate with anyone regarding farming. Ligaya Miras, the Cluster head of Sudlon II, recalls that she too, like Renren Ocariza, was very shy prior to the FEP. Her self-confidence was in farming, beadwork, and sewing. She had no experience in leading a group and had no confidence to speak her mind.

## **FEP's program inputs**

When the FEP was introduced to the Kalasag farmers in 2008, they described it as "complete" because it included a) production financing, b) marketing to JFC, and c) capacity building (including clustering / organizing). The Kalasag farmers said these were critical when they were starting. Their other needs, e.g. hauling trucks, cold storage, onion hanger, buying funds, and capital expenditure funds, were also important but were not urgently needed. Eventually, these other needs were addressed when the farmers continued delivering to JFC and began paying their arrears to the Alalay sa Kaunlaran Inc. (ASKI), the microfinance institution that helped them in their early years.<sup>33</sup>

Lamac MPC's general manager and staff also describe the FEP to be "*kumpletos rekados*" or having all the needed ingredients. GM Ellen Limocon attributes this to the inclusion of production financing, marketing to Chowking and other buyers, cluster organizing, capacity building, and

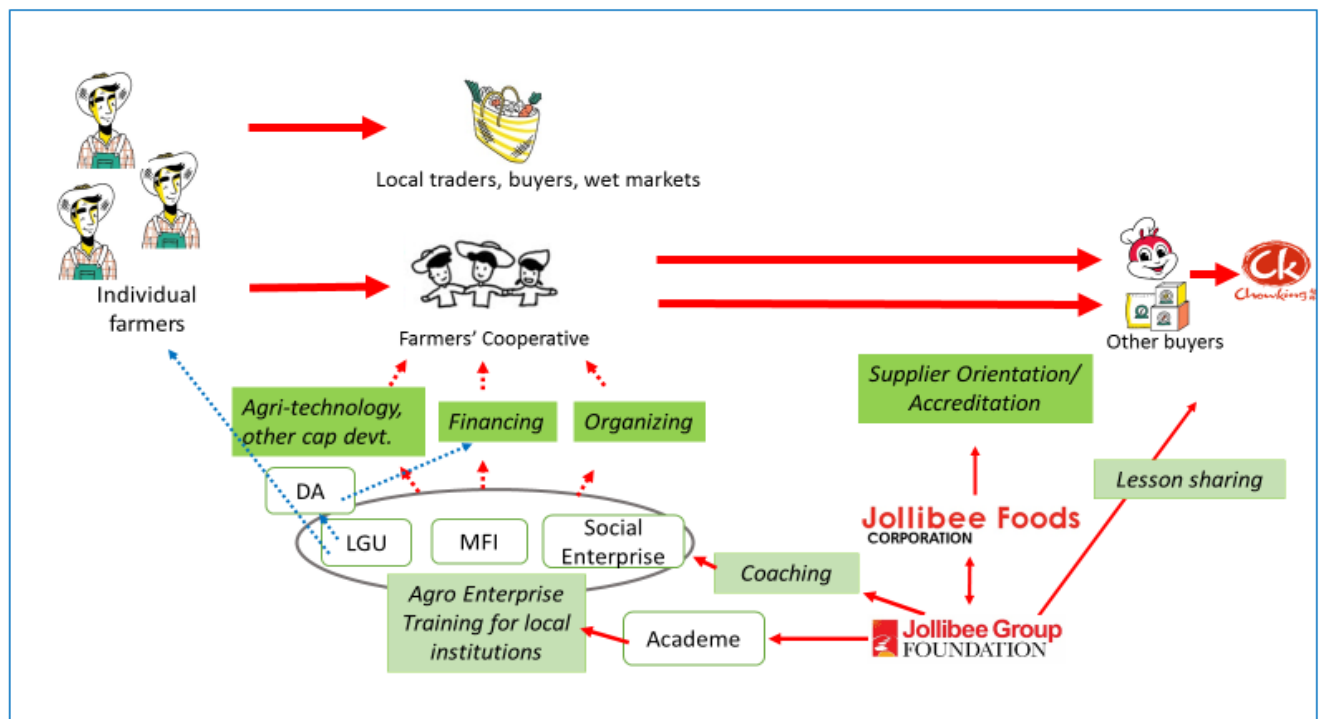
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<sup>33</sup> Kalasag Chairman Arnold Dizon said, "*kinukuha lang muna namin ang kaya namain yakapin*" (we only get what we can embrace/absorb). He said this is true in the past when they received resources for post-harvest facilities and farm machines and equipment when they already hurdled initial challenges. And it is also true in the future. They only strive for those that they can handle.

agriculture extension (JGF Commemorative Book featuring Elena Limocon 2015; Lamac MPC staff, FGD, July 24, 2017). The farmers echo this description. They said the set of interventions made them decide to join the program.

The value chain of farmers, particularly the smallholders from Dalaguete who are assisted by the Lamac MPC, was changed as a result of the interventions. Comparing illustration 2 with illustration 3, major differences could be noticed. With the program, individual smallholders sell vegetables to Lamac MPC, which sells to Chowking, supermarkets, restaurants, hotels, and other buyers in Cebu City. The farmers are only required to sell a minimum of 60% of their products to Lamac MPC. All the rest they could choose to offer or sell to other buyers including the wet markets.

Figure 9. Value chain of FEP



Source: Gisela Tiongson and Sharleene Kay Alayan (JGF) and Jane Lynn Capacio (EMIT C4C) developed the slide; it was slightly revised for clarity.

**A. FEP’s “complete recipe” at the start of an intervention**

The “complete recipe” is an interlinked program bundle of interventions at the beginning of a partnership with farmers’ clusters: 1) clustering, organizing, and capacity building, 2) financing, and 3) linking to buyers.

### **A.1. Clustering, organizing, and provision of capacity building**

The FEP clusters smallholders, which means organizing them as production and supply units that are responsible and accountable to various program stakeholders. Clustering means organizing the smallholders to reach a minimum scale, and to collectively decide on production techniques and delivery mechanisms (e.g., who supplies on certain dates and who provides the buffer supply in case of the pre-determined supplier could not meet his/her commitment).

Clusters are composed of around 15 farmers. When Kalasag started, they were composed of 15 farmers from Barangay Kaliwanagan and 15 from Barangay San Agustin. The farmers assisted by Lamac MPC are composed of 3 clusters from Sudlon II and 7 clusters from Dalaguete. At present, Kalasag is composed of 92 members with members coming from Barangays Kaliwanagan, San Agustin, and Villa Marina (newest cluster).

Clusters are taught, trained, mentored, and their leaders are coached on undertaking an agro-enterprise. One of the initial activities of clusters is the training on the 8-step agro-enterprise clustering approach, which is composed of:

1. Site selection, partnership building, and cluster formation,
2. Product selection and product supply assessment,
3. Market chain study,
4. Cluster commitment setting,
5. Business planning and mobilization,
6. Production / product supply organizing,
7. Test marketing, and
8. Scaling up or sustaining the enterprise.

This clustering approach, which was a technology developed by the Catholic Relief Services, is a sequential process with the first step leading to the next. Steps 1 to 5 can be categorized as social preparation, while step 6 is production, and steps 7 and 8 are marketing and sustainability.<sup>34</sup>

Along with clustering, the FEP also includes community organizing efforts to ensure that the farmers will have unity on the same goals and aspirations. Organizing is also geared to build the capacity and confidence of farmer leaders in managing their clusters or groups, in generating and managing resources, and in fulfilling contracts and agreements among others. In Kalasag, organizing and clustering efforts were provided by CRS from 2008 until 2014. In the case of Lamac MPC where both Sudlon and Dalaguete could be considered to be in their initial stages, the efforts on organizing cluster members and mentoring the farmer leaders reside with Lamac MPC with the support of JGF.

The program also builds the capacity of smallholders on various aspects so they could become effective, efficient, and reliable suppliers of JFC and other buyers. Program partners have undertaken key capacity development programs including agriculture technology and management of cooperatives. In the case of the Kalasag farmers, capacity building on agriculture

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<sup>34</sup> When it is introduced to a new group of farmers, agro-enterprise facilitators advise the farmers to follow the steps accordingly. But in the course of implementation, the steps could be adapted based on various situations.

extension and cooperative management is provided by the Local Government from 2008 to present. In the case of Lamac MPC, agriculture extension is being provided by the LGU since the program started to date in Sudlon II while it is being shouldered by Lamac MPC in Dalaguete since the program began until present.

## **A.2. Access to financial services**

The Kalasag farmers needed at least two types of financing to start the FEP implementation in 2009: a) production financing for the individual smallholders and b) working capital for the cooperative. Production financing enabled the farmers to produce the needed crops based on the required quantity, quality, and timing. The Kalasag Farmers Producers Cooperative also needed working capital to be able to purchase the harvested onions of the farmers. Having access to both production capital and working capital allowed the Kalasag Farmers Producers Cooperative to approximate the mechanisms of local buyers/traders and wet markets that financed the production and bought the harvest of smallholders in cash.<sup>35</sup>

The formation of the Kalasag Farmers Producers Cooperative was triggered by FEP. The farmers were onion growers even prior to the program. They had resources for production, albeit limited, which they sourced from various formal and informal sources. However, with FEP, the smallholders needed to undertake supply planning and organized farming, which required them to plant, fertilize, spray, and harvest at set or appointment times. This discipline needed coordinated financing both at the production and harvest stages.

The National Livelihood Development Corporation (NLDC), one of the three FEP program partners along with JGF and CRS, encouraged the Alalay sa Kaunlaran, Inc. (ASKI), a microfinance provider, to provide both types of financing requirements: production financing for individual farmers and working capital for the cooperative. Both types will be loaned to the Kalasag Farmers Producers Cooperative that will manage both.

Initially, ASKI had doubts. The smallholders had no acceptable collateral and the farmers' cooperative was new and thus, had no track record. Moreover, in the past, ASKI loaned to farmers from barangays Kaliwanagan and San Agustin and some of the farmers did not pay their arrears. The history of bad loans from the area and the other risks made ASKI think hard about the offer of the NLDC to join FEP (R. Padua, interview, July 21, 2017).

However, based on the reputation of the program partners (JFC and JGF, CRS, NLDC, and the LGU of San Jose) and the novelty of FEP, ASKI decided to join the program. In considering NLDC's offer, ASKI was swayed by JFC's and JGF's involvement; said institutions will not risk their

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<sup>35</sup> Eventually, as the farmers continued to stay in the program and mature, they have accepted other means to be paid aside from spot cash (e.g., receiving it in cash from the cooperative or depositing it in their savings account). This was evident also in the case of FEP farmers who are part of Lamac MPC. At first, they wanted cash and Lamac MPC wanted to show it could be trusted. GM Ellen Limocon instructed the Lamac MPC staff to deliver payments to FEP farmers even at night. It so happened that the first delivery to Chowking happened close to Christmas 2015. They knocked on farmers' household on Christmas Eve to be able to pay the farmers for their delivery. Eventually, it was the farmers themselves who told Lamac MPC that they are willing to open up accounts in the branches and they could claim their payments, and even leave some for savings deposit, from the branches.



reputation on FEP and on the Kalasag farmers if they did not see the viability of the program. ASKI also considered that CRS might not be investing in FEP and the Kalasag farmers if it did not believe in the potentials. ASKI also took note of CRS's commitment to conduct the 8-step agro-enterprise approach with the farmers on a regular, learning-by-doing, community organizing environment. Aside from these, ASKI was also excited to join a fresh agri-enterprise program involving smallholders.

The Kalasag Farmers Producers Cooperative was able to borrow from ASKI. In the selection of cluster members, ASKI was part of the screening process: those who had unpaid loans in the past were not included as cluster members (R. Padua, interview, July 21, 2017).

In Cebu, the farmers who joined the FEP clusters were not Lamac MPC members.<sup>36</sup> The farmers, both the clusters from Sudlon II and Dalaguete, needed production loan and wanted, at first, to have their delivered harvest paid in cash. To be able to maximize the benefits of the FEP, the Lamac MPC enjoined the clusters from Sudlon II and Dalaguete to become Lamac MPC members. In this way, the farmers were able to avail of the cooperative's financial products, both the production and emergency loan products.

Lamac MPC had sufficient resources to lend production financing to the farmers and had working capital to purchase the harvest. As of December 2016, Lamac MPC had a total asset of Php 1.4 billion, of which current assets including cash, loans, and accounts receivables amount to Php 1 billion (Lamac MPC's 26<sup>th</sup> Annual Assembly Report 2017).

#### Borrowing for Production: A combination of cash and inputs

Both the Kalasag Farmers Producers Cooperative and Lamac MPC provide production lending through a combination of production inputs (e.g., seeds, fertilizers, pesticides) and cash.<sup>37</sup> Since the smallholders are in clusters and they state and confirm their production commitments, cluster leaders and key officials from the Kalasag Farmers Producers Cooperative and Lamac MPC could determine each farmer's production cost. The costs are pre-computed according to production modules, which is part of the FEP training.<sup>38</sup>

In the case of the Kalasag farmers, the inputs are loaned at the start of the planting season. In the case of Lamac MPC, the cooperative lends the inputs as they are availed by the farmers. For both the Kalasag farmers and Lamac MPC, the cash portion of the loan is released in tranches based on the scheduled payment of farm laborers.<sup>39</sup> Lamac MPC likewise lends KOMBATI or

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<sup>36</sup> The farmer members of Lamac MPC are mostly rice and corn farmers who received their land titles from PD 27 or the land reform program under the Marcos regime. Because of this, Lamac MPC opened up the selection of FEP cluster members to non-members of the cooperative. Particular to Sudlon II, Ellen Limocon, Lamac MPC's general manager, said she also wanted the LGU of Cebu City to be seriously involved in the FEP so Lamac MPC asked the LGU to lead the selection of site and initial cluster members.

<sup>37</sup> This is also a way to ensure the fulfilment of the clusters' or group's supply plan

<sup>38</sup> The smallholders participate in this exercise given that most of them know how to compute the break-even volume and cost.

<sup>39</sup> Recognizing that cash is fungible, they provide the cash close to the time when the farmers need to pay the farm laborers.

production loans at 2% per month. For non-FEP farmers, production loan is loaned at 3% per month.

Some of the farmers who were interviewed noted of instances when they did not borrow for the full cost of the production module. They added their own resources so they could borrow a lesser amount. With this, they had more resources during harvest and were able to use these for big expenses like asset acquisition or payment for children's education.

#### Borrowing in order to buy the harvest of smallholders: Working capital lending

In the case of the Kalasag farmers, part of their development included having access to multiple financing partners. From 2009 when they started until 2012, ASKI was their source of production financing and working capital and for this, they were charged with 3% per month interest rate. This was eventually reduced to 1.75% per month (W. Gomez, interview, February 21, 2018).

In 2013, the leadership of the Kalasag Farmers Producers Cooperative learned about the Direct Market Linkage Development Program of the Agriculture Credit Policy Council (ACPC), a policy think tank of the government. ACPC has loan funds from the Department of Agriculture's AMFPC funds, which it utilizes for modeling agriculture enterprises and value chain financing. In 2013, Kalasag decided to source their production loans from ASKI at 1.75% per month interest rate and their working capital or marketing funds from the ACPC at 6% per year interest rate. Since 2014, the Kalasag Farmers Producers Cooperative has sourced both production and working capital financing from ACPC through a Php 6 million credit line. The cooperative passes on the production loan at 15% interest rate per year.

The 6% per year interest rate from the ACPC is smaller than the interest rate of universal and commercial banks. The Land Bank of the Philippines, for instance, offers an 8% interest for wholesale loans for the Agrarian Production Credit Program (APCP), which when paid in time or earlier than the deadline, has a rebate of 2%.

Lamac MPC did not have to borrow for working capital or to purchase the deliveries of smallholders who are part of FEP. The cooperative has sufficient resources and has a long-term credit line and relationship with the Land Bank of the Philippines.

#### Smallholders' other financing needs

Aside from production financing and other farm-related funding needs, smallholder farmers also shared that they needed financing for critical instances like illness in the family or school enrollment of their children. Both the Kalasag Farmers Producers Cooperative and Lamac MPC have emergency loans. The farmers use these facilities when needed. In case they still need more funds, they also borrow from relatives, neighbors, financial institutions and informal lenders.

### **A.3. Linkage to buyers**

A critical input of FEP in the initial phase of a partnership with a farmers' cluster is their linkage to corporate buyers. As part of the 8-step agro-enterprise clustering approach, a market chain study is undertaken by the clusters. In this step, they identify the possible buyers of their products, including JFC and other buyers. Eventually, in step 7, the farmers undertake test

marketing to these buyers and when successful, FEP initiates linkage of the farmers and JFC / other buyers.

The linkage to JFC was undertaken by the Jollibee Group Foundation (JGF) by working with JFC's Purchasing Group and ensuring that both sides – farmers and Purchasing Group – understand each other's context and the rationale for the requirements to be able to fulfill their agreement. The JGF assisted in farmers' accreditation to become JFC's suppliers. When new requirements were implemented by the Purchasing Group, JGF ensured that it is rolled out to Kalasag, Lamac MPC, and other partners. In several cases, the JGF tapped its staff to undertake the training of farmers on new requirements of the Purchasing Group. Where other suppliers only required an email, smallholders often needed to be personally met and oriented. JGF ensures this smooth flow of information.

The linkage to other buyers, aside from JFC, was likewise undertaken by JGF in the early years of FEP. JGF linked the Kalasag farmers to CDO Foodsphere, Splash Foods Corporation, and other buyers. JGF facilitated the capacity building of farmers and their linkage to companies and in turn, it coordinated with the companies in working with smallholders.

In the experiences of FEP, the involvement of corporate buyers changed the "rules of the game." In particular, in the case of the farmers from Dalaguete, when capacity building, clustering, and formal financing were made available but were not bundled with the presence of buyers like JFC (i.e., Chowking), some of the farmers from Dalaguete's Cluster One even incurred debts which they find difficult to repay. It can be surmised that the difference is attributable to the major buyer's (JFC) and the FEP's application of inclusive and sustainable supply chain principles.

### ***B. FEP's interventions when smallholders reach tipping points***

When a farmers' cluster is progressing, like the Kalasag farmers, and they reach tipping points, specific interventions of FEP like linkage to JFC, agriculture extension services, and occasional mentoring of leaders remain. However, "start-up" assistance like clustering, community organizing, and constant mentoring scale down and eventually, end. In contrast, the need for financing escalates.

In their almost a decade of being part of FEP, the Kalasag farmers, at certain junctures, needed more than just production financing and working capital. They felt the importance of having their own trucks that they could use to deliver to the JFC Commissary. They also felt the need for an onion hangar and a cold storage facility so they could keep the freshness of the onions and be able to extend the timing of their deliveries to JFC.

During these tipping points when the Kalasag farmers had the capacity and confidence to expand, they needed other partners and new financing mechanisms since the existing ones were limited. With the help of their partners, JGF, CRS, ASKI, and the Local Government of San Jose City, the farmers scouted for a truck. They tapped government offices including the Department of Agriculture, PhilMech, Senate Offices, and raised counterpart funding to be able to obtain a bigger truck and build the onion hangar. They increased their loan request to be able to give the counterpart fund. The Kalasag leaders emphasized that that they were able to secure the financing for the machines and facilities when they gained the track record for continuous delivery

to JFC and other buyers and consistent paying of loans. Their financial statements showed proof of continuous positive performance.

At present, the Kalasag farmers are renting a cold storage. Their financial standing allows them to pay for the rent. Onion peeling and cold storage are profitable, according to the GM Wendy Gomez. In terms of price from JFC, peeled (and cold-stored) onions give additional income to the cooperative. It also provides jobs to onion peelers who were organized as “Kabiyak,” a subgroup within the cooperative composed of women who are the wives and women relatives of the Kalasag farmers.<sup>40</sup> Given their experience renting a cold storage, the Kalasag leaders think they are ready to manage their own cold storage facility and are considering financing modalities. In their estimate, they need to rent out the cold storage for efficient use; as such, they are thinking of renting it to other FEP partner farmers.

## **Program results**

Based on their situation prior to and during the early years of FEP, the Kalasag farmers and the smallholders assisted by Lamac MPC reported that they gained confidence, leadership abilities, and resources from the program.

### ***A. Kalasag farmers: Changes in confidence, leadership skills, and resources***

The confidence and leadership of Kalasag farmers changed over time. JGF President Grace Tan Caktiong notes that where before, the Kalasag farmers were not looking at her whenever she saw them during the early years of the program, they now look and smile at her. During a visit to the JFC Commissary, she asked GM Wendy Gomez what it was that he was holding and he said it is a digital tablet that they use to monitor their inventory. She notes that their confidence has increased over time.

The leadership in Kalasag changed too. Most of their partners who knew them from the time they started with the FEP until the present agree that while all the program interventions were important, there is an important element in Kalasag that is essential in turning the group into a successful model that it is now: its leadership (D. Mariano, interview, July 23, 2017; W. Alfonso, interview, August 8, 2017; R. Padua Jr., interview, July 21, 2017; and M. Belena, interview, August 8, 2017).

Ador Mariano of CRS saw the evolution of the Kalasag farmer leaders. At first, they were not confident and were unsure of what to do. They had lessons from their export experience but they did not know how to consolidate production, processing, hauling, marketing and they did not have an idea about managing farm financing. Over time, they learned these. Ador Mariano and other stakeholders observed that the leaders were willing to try new things, to learn lessons through various ways, to take on risks, and to try different strategies in managing their group.<sup>41</sup> With this attitude, the leaders absorbed and implemented the lessons they learned.

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<sup>40</sup> The Kalasag farmers were offered a peeling machine. But they did not accept it since peeling can be income generating for the women.

<sup>41</sup> In the early years of piloting the program, Ador was assisting Kalasag and two other farmer groups from Nueva Ecija and Nueva Vizcaya. What made the Kalasag leaders different from the other two groups was their willingness: Ador remembers that when an activity needs to be undertaken, he invited

Their willingness and openness were valuable to the operation of their cooperative. During their first delivery in 2009, they did not understand that JFC issues a purchase order prior to each delivery. Unfortunately, they harvested all their onions for that season without a purchase order. JFC accepted the delivery that was required only for that week, leading to the rest of the harvested crop to be sold elsewhere. This experience did not hamper the desire of the farmers to continue with the program. Chairman Arnold Dizon, the board of directors, and GM Wency Gomez encouraged the members to continue.<sup>42</sup>

The Kalasag leaders have become equipped in handling the day-to-day management of their cooperative, in getting agreements and cooperation from fellow farmers, and in crafting policies and programs to ensure the delivery of their commitments to JFC and other markets and the payment of their arrears. This change among the Kalasag leaders was noticeable given that when the group started in 2008, leadership was not evident. In fact, it was one of the challenges observed by the Purchasing Group of JFC (La'O 2016).

In terms of resources, the Kalasag farmers have also improved over the years. In regard to farm income, the farmers believe that their income increased since the FEP. They attribute this from the higher buying price of onions from JFC and the availability of other buyers who were linked to them by the JGF. The other buyers purchased additional products like hot pepper and off-sized onions (those that would not meet the JFC standard in regard to size).

They stated that since they started with the FEP, most of them were able to undertake two important measures. One, they redeemed their pawned lands, jewelries, and other assets (e.g., vehicles, farm animals). Two, they also were able to improve their houses, expand their farm lands (either through sale or land leases), and purchase farm equipment and vehicles.

In 2016, 9 Kalasag farmers shared that they manage 2 to 3 parcels of land covering around 2.1 hectares.

Table 10. Land being managed (Kalasag)

	Kalasag	Non-Kalasag: onion farmers in same barangays	Non-Kalasag, onion farmers in San Isidro, Mun. of Lupao
Number of interviewees	9	4	4
Ave. number of parcels	2 to 3 parcels	1 to 2 parcels	1 parcel
Ave. land size of managed farm	2.1 ha.	1.25 ha.	0.74 ha.

all three pilot groups; but the leaders of the two other groups were often constrained by their lack of resources. One of the groups was dependent on their mayor that when they face a need, their recourse was, "*magtatanong kami kay Mayor*" (we will ask the Mayor) or "*Susubukan namin humingi kay Mayor*" (we will try to ask from the mayor). Kalasag leaders were different: they were willing and were decided to do the needed tasks so they looked for means to be able to finance these.

<sup>42</sup> Despite learning many lessons in the course of the program, Ador Mariano notes that the Kalasag leaders are not "all knowing;" in fact, they are willing to learn new things and new ways of doing things. Moreover, once they gained new knowledge and skills from their new experiences, the Kalasag leaders can apply their new lessons to create better mechanisms.

The Kalasag farmers try to expand their land size. This is by renting, or where possible, buying land from other people, usually from those who could not till it because of lack of capital or lack of available person to manage the farm land. Prior to FEP, they said that most of them only owned/managed one land parcel, usually an agrarian land. When shocks hit their households, they had to lease their land (along with other properties). With FEP, the farmers made conscious decisions to expand the land they manage. Land rental or 2 or 3-year leases are the main mechanisms for expansion because other owners also do not want to sell their parcels. To execute the agreement, the parties sign simple agreements in the barangay.

The difference in the average size of land being managed - 0.85 hectare bigger than non-Kalasag in the same barangays and 1.36 ha. bigger than non-Kalasag in the Municipality of Lupao - is significant given that one production module of onion (or one can) fits in 1,500 sqm. of land. Vegetable plots are small too (1,500 to 3,000 sqm per crop). A small increase in land size is consequential on farm income.

### ***B. Farmers assisted by Lamac MPC: Changes in their leadership and resources***

While less pronounced, improvements in leadership, confidence, and skills are also visible among the farmers from Sudlon II and Dalaguete. Cluster leaders like Ligaya Miras, Catalino Panaginin, and Renren Ocariza and other cluster officers are able to address the day-to-day management of their clusters.

Ligaya Miras also has another function: she addresses the problems that are elevated to her being the head of all 3 clusters. There was a time that one of the clusters had problems with a cluster leader who was busy with his networking business and had no time for cluster work. Ligaya talked with this person, convinced him that leading a cluster is hard work, and that devoting time is important for the whole group to grow. In the end, the person decided to resign as cluster leader.

In Dalaguete, cluster leaders, particularly Zosimo "Cimo" Velasquez, exemplify leadership. Like the Kalasag farmers who knew how to innovate from difficult situations and challenges, Cimo remembers that there were times when the clusters had difficulty in filling up the truck of Lamac MPC with harvested vegetables. This led him to suggest and eventually, to set up another cluster to help buffer the supply. As leader of Cluster Two, Cimo was instrumental in building Cluster Seven.

The cluster leaders from Sudlon and Dalaguete did not have formal leadership posts before. They said they learned to lead as they implement the program. The help of Lamac MPC and JGF staff in solving problems was instrumental in honing the leadership capabilities of the leaders.

Aside from improved confidence and enhanced leadership, the farmers also underscored that their income increased when they joined the program. Renren Ocariza highlighted the importance of access to production loan that Lamac MPC made available because of FEP. In 2016, he obtained a Php 25,000.00 loan from Lamac MPC, which was payable in one year with an interest rate of 2% per month. Because of this loan, Renren claimed a patronage refund or his share of the profit based on his purchases. He was also entitled to receive dividends from that year. He can also tap the other loan windows and mutual aid services of Lamac MPC in case of unforeseen problems.

Renren said that aside from the actual financial benefits of being part of FEP, he does not have to go to Carbon to sell to his *suki*, which gave him free time. He noted, however, that since he is the cluster leader, his free time is now spent in managing the daily activities of his cluster. He adds that he does not complain; he is happy to help the members of his cluster especially since most of them are his relatives.

The farmers from Dalaguete, Cebu, shared that they too had increased income because of better prices and reduced production costs. Table 5 compares the income of the farmers in 2014 (before FEP), in 2015 (when Lamac MPC provided access to finance but had no major buyers and no hauling facilities), and in 2016 (when Lamac MPC implemented a combination of access to finance, clustering of farmers, presence of Chowking and other buyers, and start of hauling services).<sup>43</sup>

Table 11. Comparison of costs and buying price

Cost item	Before Lamac MPC / FEP	2015 (With clustering & financing; without marketing)	Starting 8 August 2016 (FEP: with clustering, financing & marketing)
Buying of inputs: Transportation to downtown stores	Spent for transportation cost from house to downtown and vice versa	Did not spend on transportation. Lamac MPC lends production loans through inputs, which they deliver to Dalaguete	Did not spend on transportation. Lamac MPC lends production loans through inputs, which they deliver to Dalaguete
Cost of inputs	Retail price	Wholesale/discounted price (through Lamac MPC), which is lower than the retail price	Wholesale/discounted price (through Lamac MPC), which is lower than the retail price
Hauling of products from farm to main road	20% of net income	20% of net income	20% of net income
Hauling from main road to Mantalungon and Nug-as (markets)	Php 1.00 to 2.00 per kg. of vegetables	Php 1.00 to 2.00 per kg. of vegetables	No cost. The consolidation area or pick-up point is along the Dalaguete main road
Payment to stevedore	Php 20.00 per bukag <sup>44</sup> . Usually, a delivery consists of 5 to 10 bukag.	Php 20.00 per bukag. Usually, a delivery consists of 5 to 10 bukag	No cost
Cost: Use of weighing scale	Php 20.00 per Php 1,000.00 of the net income	Php 20.00 per Php 1,000.00 of the net income	None
Selling through "commissioners"	Yes	Yes	No
Buying price per kg.	Mantalungon and Nug-as  Cabbage: Php 3.00 Pechay: Php 5.00 – 8.00 Eggplant: Php 15.00 Spring onion: Php 80.00	Mantalungon and Nug-as  Cabbage: Php 3.00 Pechay: Php 5.00 – 8.00 Eggplant: Php 15.00 Spring onion: Php 80.00	Lamac MPC  Cabbage: Php 8.00 Pechay: Php 10.00 Eggplant: Php 20.00 Spring onion: Php 100.00

Source: FDG with Dalaguete cluster leaders

<sup>43</sup> The table reproduces the results of the focus group discussion with the leaders of the 7 clusters from Dalaguete, Cebu.

<sup>44</sup> A basket that can carry around 60 kilos of lettuce or leafy vegetables.

## **Analysis of program strategies**

The FEP has key strategies that need to be underscored. These could provide important lessons on agro-enterprise development with smallholder farmers.

### ***The FEP provided a few essential and complete bundle of interventions***

In entering areas, program partners provide three interventions:

- A) Access to finance;
- B) Linkage to major or corporate buyers and along with it, the presence of JGF, that bridges farmers and buyers;
- C) Clustering, organizing, and capacity building of local stakeholders and smallholder farmers

These inputs are mostly focused on training and empowering the farmers. The assistance is also heavy on enabling them to be cost-efficient with their production. This explains why the Kalasag leaders and the Lamac MPC give loans through a combination of inputs and cash (to be used to pay laborers). Giving loans in terms of inputs reduces costs and provides an opportunity to farmer leaders to manage the supply plan. Other assistance on capacity building, including training and mentoring, is designed so leaders are equipped to manage challenges.

The provision of a few essential and complete set of intervention gives a valuable lesson to stakeholders who are engaged in agro-enterprise: working in silos and providing incomplete assistance do not work. Moreover, it is important to orchestrate the interventions in order to start and sustain the agro-enterprise effort. The effort of CRS and lead implementing partners in training, mentoring, and coaching farmers is critical. It readied the farmers to absorb bigger responsibilities. The presence of these facilitators and community enterprise organizers also gave confidence to farmer leaders.

### ***A. The FEP opened up opportunities for new interventions which led to a sequenced provision of assistance***

The other needed interventions, such as the provision of infrastructure like roads, irrigation, and post-harvest facilities, are important but not urgent requirements for FEP to roll out. This is also true for the provision of fixed assets or common service facilities like trucks, hangar, consolidation areas, and cold storage facilities since these could be borrowed or rented out during the early stages of the program when the farmers are still learning-by-doing the initial requirements to be able to sell to JFC.

In the experience of Kalasag, the farmers received a 14-footer refrigerated van, 14-footer storage bin, as well as a refrigerated delivery truck a few years after they were established when the farmers have already delivered several times to JFC. By then, Chairman Arnold Dizon says they were already capable to provide counterpart funds to the truck that was provided by the Department of Agriculture. Also, by then, they felt ready to manage the fixed assets and design its use such that funds are set aside for equipment maintenance and replacement.

This sequencing of assistance to Kalasag might be unintended. However, it now appears to be a critical aspect to the success of the group. It could be surmised that if the fixed assets were



provided earlier, when Kalasag was just starting to understand the supply chain, when they were trying their hands at production financing, when they were learning the ropes of dealing with JGF, CRS, and JFC, and when they were busy dealing with the dynamics of cluster creation, then the management of fixed assets could have given an additional burden.

In Sudlon II and Dalaguete, the farmer clusters do not manage fixed assets. Lamac MPC owns the trucks used for hauling and the physical area for packing and sorting of vegetables. In the community, the Sudlon and Dalaguete farmers only have a consolidation area, provided by JGF, which serves as a physical space to deliver vegetables to be picked up by the trucks. The farmers likewise use their consolidation areas for meetings and trainings. They undertake minimal management of these physical spaces.

### ***B. Various stakeholders organized the farmers and built capabilities within the chain***

The comparison of Kalasag farmers and the farmers assisted by Lamac MPC allows an in-depth understanding of the partners that were tapped and the roles they played. Both sets of farmers are successful to date, and both were provided with the same essential bundle of assistance. However, those who served the role of farmers' organizing as well as capacity building of different actors in the chain were different.

In the case of Kalasag, CRS tapped Ador Mariano, a veteran on agro-enterprise clustering, to organize the farmers. He mentored them by staying in San Jose City in the early years, and supported the efforts of the local government in assisting the farmers. He facilitated strategy and tactic sessions and the processing of experiences to elicit lessons and better decisions. The support to Kalasag was strengthened and continued by the LGU of San Jose City, which continued to provide assistance to the farmers.

At a less intense level, Lamac MPC officials and staff, led by GM Ellen Limocon, have also undertaken this organizing role with the Sudlon II and Dalaguete farmer leaders and members. GM Ellen Limocon formed teams that worked with cluster leaders in dealing with the day-to-day management of clusters. She also assigned agriculture technicians who provided agriculture extension services to the farmers. GM Ellen Limocon also made sure that the Lamac MPC branches that directly cater to the Sudlon II and Dalaguete farmers assist in addressing various needs. The organizing work in Sudlon, which was undertaken by key Lamac staff, lasted for 6 months. The continuous mentoring of farmers in Dalaguete is handled by key officials of the Lamac MPC Dalaguete Branch.

It can be seen that the decision of FEP to tap LGUs or MFIs as lead implementing partners is effective. These important roles could be played by different service providers who have a mandate or an interest in ensuring the success of the program. This role could be taken on by a veteran community enterprise organizer from a non-government organization. It could be undertaken by a competent and reliable team from the LGU or MFI. It can be surmised that this could also be undertaken by business development service providers who are tapped by the government or private sector.

The difference in terms of intensity of involvement could be based on opportunities and limitations. In the case of Kalasag, there was no cooperative that could undertake the organizing

of farmers and absorb the farmers as members. The need to set up a cooperative from the clusters required intense organizing work. In Cebu, a lesser intensity of organizing is needed given the availability of Lamac MPC to take on the farmers.

## **Breaking the financing barriers**

FEP hurdled financing and other barriers which led to smallholders being able to sell to buyers like Jollibee Foods Corporation. From the experiences of the Kalasag and Lamac MPC-assisted farmers, key generalizations can be made.

### ***A. Production financing: An interlinked transaction***

During the start of an intervention, when production financing for individual smallholders is needed, the FEP partners set up financing mechanisms. Production financing, in the case of the Kalasag Farmers Producers Cooperative and Lamac MPC, is loaned through a combined in-cash and in-kind loans to individual farmers and during harvest, the loans are paid through the delivery of at least 60% of the harvest to the cooperative.

This lending mechanism is an interlinked transaction (Esguerra 1993) where smallholders are tied to the cooperatives which provide not only production financing but a whole bundle of non-financial services including capacity building, agricultural extension services, and linkage to major buyers like JFC. In terms of financial services, the smallholders also get patronage refund and yearly dividends aside from access to production and other types of loans.

This credit tying allowed the cooperatives to have handles on the supply of products and thus, in turn, they could fulfill their commitments to corporate buyers. To an extent, the credit tying or interlinked production financing approximates informal credit markets in terms of availability and accessibility of financing. This is the mechanism used by informal trader-lenders in ensuring supply of products during harvest time.

In the literature on interlinked transactions, tied contracts serve as collateral substitutes that guarantee the delivery of harvested products and the repayment of loans. Farmer-borrowers do not renege on their informal contracts with the interlockers (trader-lenders) because they do not have information on the prices of products and they are risk-averse (Fabella, 1992). With this, production financing was accessed. But informal interlinked contracts have disadvantages including high monitoring cost and high cost of keeping the farmer borrowers remain in the contract. This is why trader-lenders also provide other loan (and grant) services particularly during shocks (e.g., death in the family) and celebrations.

### ***B. Formal and informal mechanisms***

FEP taps the strong points of informal interlinked contracts but improves on it. FEP facilitates linkage to major or corporate buyers and the formal pre-commitment of outputs to these buyers gives credibility to financial service providers. The **pre-commitment** to purchase at least 60% of onions and vegetables serves as collateral substitutes that trigger production and working capital financing. This formal contract between JFC and the farmers' cooperatives is reinforced by formal contracts among partners (e.g. Memorandum of Agreement among JGF, CRS, and

NLDC and agreements between JGF and local implementing partners) and informal contracts between and among partners (e.g., norms in local communities).

In regard to informal mechanisms, the polyvalent ties (Evans 1995) or various important relationships within the FEP clusters and within the Kalasag Farmers Producers Cooperative (e.g., co-members, relatives, neighbors, friends, and classmates among others) are important mechanisms in enforcing norms and customs. These informal contracts, combined with formal contracts, seem to create self-enforcing agreements that are honored by the parties and not requiring third party (i.e., courts) enforcement. Agreement breach – not repaying loans, not planting and harvesting at an agreed-upon time, and not selling at least 60% of harvest – are seriously considered in the communities because the cluster and cooperative leaders can impose sanctions (e.g. lesser allocation of inputs during the next planting season) and provide rewards (e.g. better reputation in the community). Greif (2005) notes that organic, private-order, contract enforcement mechanisms are effective when people face the prospect of beneficial exchange, when contract breach is observable, and when future rewards and threats of sanctions are credible. These types of contracts, according to the literature on new institutional economics, are less costly since these do not require heavy enforcement, monitoring, and coordination costs.

Financing in FEP is not monopolistic, neither is it usurious and exploitative. FEP does not require smallholders to sell all of their harvested products to JFC and other major buyers even if the production financing covers the full cost of planting and harvesting the products. This allows smallholders to diversify their buyers to avoid lock-in. Moreover, the interest rate for production loans is reasonable (2% per month for Lamac MPC and 3.75% per month for Kalasag). Lamac MPC lessened its interest rate for FEP production loans by 1% compared to their regular production loan. It can be surmised that the formal and informal contracts in the FEP provided the confidence in the program and lessened the cost of transaction for Lamac MPC.

### ***C. Inclusive value chains attract better financing deals***

The ACPC offered the Kalasag farmers better credit terms (e.g., lower interest rate). It is surmised that even without the ACPC's offer, the Kalasag Farmers Producers Cooperative may have been offered a better deal by the LANDBANK, rural banks, or private commercial banks. They have become viable and they obtained assets that could be used collateral.

### ***D. Partners have financing in their business model and mandate***

The partners that were tapped for financing – NLDC, ASKI, and Lamac MPC – have financing in their business models. They were financing micro and small businesses prior to their involvement in FEP and when they were invited to be part of the program, they took it as opportunity to join a novel agri-business intervention. While it is in their mandate to engage in smallholder farming, they did not have opportunities in the past, were hindered by negative experiences, or they lacked know-how.

It is evident that FEP has a varied partnership portfolio. It has government, civil society, microfinance providers, and cooperatives as partners and these are either local or national in nature and operations. The different partners used their mandate and resources (financial, human) to complement the mandate and resources of other partners in addressing various needs

in the value chain. The cross-sector complementation contributed to the consistent farmer deliveries to JFC.

### ***E. Financing based on a long-term relationship***

The partners in FEP are committed to the program despite “faults” and in spite of few cases of payment defaults. In Cluster One of Dalaguete, Cebu, some of the cluster members defaulted in their arrears to Lamac MPC during the period when capacity building, clustering, agriculture extension, and financing were made available but corporate buyers were not yet present; as such, the farmers still sold their harvests to the wet markets. Despite of repayment concerns, Lamac MPC remains committed to the program. Lamac MPC’s conversations with these few Cluster One members are continuing; some were offered loan restructuring.

It can be seen that partnerships in FEP are long-term. The assurance of the program that JFC remains committed to purchasing from the smallholders and the Jollibee Group Foundation and the partners are committed to assisting the farmers in meeting the various requirements, lead to long-term considerations. Even the smallholders recognize the value of this long-term partnership. The Kalasag farmers note that in their 9 years of delivering to JFC, there were times when the buying price of local buyers and traders were higher. During the first few years, some Kalasag farmers regret the lower buying price and considered not delivering their 60% commitment. Over time, however, they realized that the price of JFC is still higher and more consistent. Moreover, they also realized that JFC and JGF are committed to the FEP and deduced that their partnership is stable. The Kalasag farmers have become firmer in their commitment to the program despite occasional instances of higher buying prices from local buyers and traders.

### **Managing the risks**

There were risks that were managed and risks that were “prayed for”<sup>45</sup> in the story of the Kalasag Farmers Producers Cooperative, which was part of the pilot batch of the FEP. One of the risks, which was previously discussed, was the risk of non-delivery to JFC due to problems such as rains that onions do not like especially when these are in their bulbing stage. Part of their mechanisms to address this is by developing a realistic supply plan that determines the planting and eventually, the weekly harvesting of onions to be delivered to JFC. The Kalasag board of directors and management ensure members’ commitment and strict adherence to this supply plan. In case of default, the Board of Directors has already developed mechanisms for “contract enforcement” (e.g., smaller allocation for next onion season).<sup>46</sup>

On top of this, the leaders of Kalasag also ensure that they have a buffer in cases of lower yield or inability of other farmers to deliver on their committed supply. This mechanism is also being practiced by the farmers assisted by Lamac MPC. Cluster leaders ensure that buffers are available within the cluster and between the different clusters.

It can be argued that the farmers’ ability to address risks is one borne of adversity. The lack of acceptable crop insurance for onions and high-value vegetables required FEP and its partners to create mechanisms to address the risks. An important contextual factor is that for both Kalasag

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<sup>45</sup> Referring to problems that are elevated to a higher Being for solutions

<sup>46</sup> The program partners, JGF, CRS, and NLDC, took on serious risks too at different points in the FEP implementation. However, this was not yet investigated in the action research project.

and Lamac MPC cases, the production loans are not covered by crop insurance. The Philippine Crop Insurance Corporation (PCIC) has no insurance cover for rains (unless these are typhoons and storms). The Kalasag farmers explain that rains could be detrimental for the bulbing stage of onion farming and they were willing to pay for premium for insurance during this critical phase but the PCIC has no program for this. Most of the programs of the PCIC is on rice and corn.

ASKI prayed for answers to the risks involved in lending to the Kalasag farmers. The farmers had no track record and in fact, some of the farmers from Barangays Kaliwanagan and San Agustin defaulted on their previous loans from ASKI. Aside from ASKI who borne the risks of lending to the newly-built Kalasag Farmers Producers Cooperative, former San Jose City Mayor Marivic Belena also decided to lend her personal money to the Kalasag farmers during a tight situation. She took the risk of lending money as part of her contribution in ensuring the continuity of the program despite the financing hurdle. Eventually, she was paid; and she did not require interest for her money (M. Belena, interview, August 8, 2017).

In Cebu, Lamac MPC took risks in partnering with farmers who were not their members. Ellen Limocon, Lamac MPC's general manager, said risk taking is part of the operations of a lending cooperative. Since she believed FEP could contribute to Lamac MPC achieving its vision and mission, then she took on the manageable risks (E. Limocon, interview, July 24, 2017). In some cases, Cluster One members were not able to pay for their production loans. They did not know the farmers earlier and as such they have no idea on their risk history. Also, in 2015, they implemented FEP in Dalaguete with community organizing, capacity building, and financing but no direct link to corporate buyers; as such, the farmers sold their produce to traders, buyers, and wet markets. Some of them had losses and they use these as reasons for non-payment of loans. Despite experiencing defaults, Lamac MPC continues the FEP implementation.

It can be argued that the acceptance of calculated risks is based on the formal and informal mechanisms in FEP (e.g., yearly purchase orders between JFC and the farmers' cooperatives; MOA among JGF, CRS, and NLDC; Agreement between JGF and local institutions; pooling of resources so that CRS could conduct community organizing; commitment of JGF to bridge farmers to buyers; and commitment of farmer leaders to deliver on commitments). These mechanisms plugged institutional voids particularly the failure of government, private sector, and civil society to collectively work together at the same time to address problems (i.e., third order challenge).

## **Social investments: Costs of working with smallholders in FEP**

FEP partners provided and continues to pour in social investments to enable the value chains. The social investments are in the form of the following: a) FEP model development, b) continuing investment of the Jollibee Group Foundation in the program and in their partners, c) various contributions of local implementing partners like the Local Government of San Jose City and the Lamac Multipurpose Cooperative, and d) the investments of the smallholders in other farmers, in their clusters and cooperatives, and in FEP. This section itemizes these social investments, puts some of the costs, and addresses their importance.

From 2008 to 2013, when FEP was implemented, tested, and reiterated - akin to the product development stage of products or services – the program partners (JGF, CRS, and NLDC) spent

on social investment costs (or what is commonly known as “subsidies”) that were used for different purposes. During this period, smallholders like the Kalasag farmers, received the following interventions as part of the program: a) capacity building on organizing, agriculture technology, marketing, financing, and cluster / cooperative management, farmers’ organizing to enable the cluster and cooperative leaders to lead their groups particularly in addressing trying situations and tipping points as well as b) linkage to Purchasing and other units of JFC and to other buyers and partners. Aside from the smallholders, FEP also trained the local implementing partners. Their capacity building includes the 8-step agro-enterprise development.

These social investments were costly but critical to the program, particularly during the program development juncture. The resources were important for “institution building” when formal and informal rules of FEP were being made.

Table 12. Cost of implementing the FEP from 2008 to 2013 (JGF, CRS, NLDC) in Php

	<b>JGF</b>	<b>CRS</b>	<b>NLDC</b>	<b>Total</b>
<b>2008-2013</b>	<b>10,156,115</b>	<b>11,433,626</b>	<b>6,338,600</b>	<b>27,928,341</b>
% of share	36%	41%	23%	100%

Source: JGF (2017): History of the Farmer Entrepreneurship Program. Note: Data came from MOAs executed by the three institutions; it does not include other funds that NLDC extended to its MFI partners

It can be seen that during the pilot years of the program (2008-2010) and the expansion years (2011-2013), the program partners spent a total of Php 27,928,341.00, which was shared by three institutions. During this time, all hands were on deck on the program.

In the case of Kalasag and the two other farmer groups that were part of the pilot batch, JGF ensured the smooth flow of information from JFC to the farmers and vice versa and ensured that agreements and requirements cascade within the project steering committee.<sup>47</sup> The role of CRS as project implementing agency, which introduced the 8-step agro-enterprise clustering approach during this period, was critical as well. It dedicated a seasoned staff, Dominador “Ador” Mariano, to Kalasag and to two other pilot sites in Luzon. His and another CRS staff’s salary were funded by the pooled resources of the three program partners. He organized the farmers, empowered the farmer leaders, and coordinated all the local stakeholders.<sup>48</sup> The role of NLDC was important too. It brought its network of microfinance institutions to make sure that the farmer groups who were involved in the pilot phase had access to financing. NLDC invested resources in orienting MFIs as well as in shouldering the salary of key MFI staff for FEP.

Local implementing partners also spent their own resources to ensure the implementation of FEP. The Local Government of San Jose estimates that since 2009 till the present, they budgeted and

<sup>47</sup> The latter years of the FEP show that it is very difficult to link buyers and farmers even if both parties are willing because of huge challenges faced by smallholder farmers. Without an institution like the JGF, the needed information does not freely flow along the chain and no one coordinates the understanding of issues, opportunities, challenges, and limitations.

<sup>48</sup> Ador Mariano did it through a process such that afterwards, when he left, Kalasag farmers were able to manage their cooperative on their own and site working group members (City Agriculture Office, City Cooperative Office, and the Alalay sa Kaunlaran, Inc., the MFI that helped Kalasag) gained ownership of the program.

actually spent Php 1,919,325.00 per year for the cost of assisting the Kalasag farmers and leading the site working group (T. Corpus, interview, August 7, 2018; see also the Annual Investment Plan of the LGU). The cost is based on the yearly FEP allocation of three offices in the Local Government Unit: Cooperative Development Services, Agriculture Services, and Office of the Mayor.

The role played by the LGU of San Jose City was important and the way it handled the program (assigning three offices; i.e., Office of the Mayor, City Cooperative Office, and City Agriculture Office to help Kalasag) showed its dedication in seeing that the farmers succeed. Former Mayor Marivic Belena went as far as using her own money to bridge a financing gap (between the farmers' first delivery and JFC's first payment).

GM Ellen Limocon said that even at the onset, when they were first invited by NATCCO to join the program, they already spent for her training and eventually, in the training of two other Lamac MPC staff.<sup>49</sup> She decided that aside from herself, Lamac MPC will send two other staff to the training. She was thinking "if something unfortunate happens (to the trained staff), then training will be wasted and the program will not be implemented." She hastened to add that this was because she and the Lamac MPC Board of Directors felt that FEP is critical and strategic for them (E. Limocon, interview, July 24, 2017).<sup>50</sup>

In the estimate of Lamac MPC's leadership, they needed to set up a branch in Sudlon II, their first FEP site, in order to improve their financial services to the FEP farmers. GM Ellen Limocon appointed a manager and charged him to serve the FEP farmers and to look for other clients.<sup>51</sup> Aside from setting up a new branch near Sudlon II, Lamac MPC also set up a new office, the Business Development Center or BDC, which focuses on the FEP particularly in assisting the clusters and in marketing the supplies to various buyers in Cebu. The BDC is in charge of dealing with the clusters regarding their "bid" for the day. Said bids are from the supply plan of the clusters and the bids determine the purchase order from Lamac MPC for the day. The BDC is also the one that deals with the multiple buyers of Lamac MPC including 20 Chowking stores, Metro Gaisano Supermarkets, hotels, restaurants and other buyers by knowing their volume and variety orders for the day.<sup>52</sup> Moreover, the BDC is also the one that sets the price for each kilo of vegetable based on multiple sources of price information.

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<sup>49</sup> FEP required to pay Php 25,000.00 as equity per participant in the 8-step agro-enterprise training. This covers part of expenses e.g. hotel accommodation for the months-long training.

<sup>50</sup> GM Ellen Limocon said that they have been looking for a program that will "bring them back to their roots," to smallholders, given the many years that they focused on vendors, employees, and other sectors. Lamac MPC has rice farmer members who are mostly agrarian reform beneficiaries but they did not have an agriculture program. FEP provided that opportunity; it was "an answered prayer."

<sup>51</sup> GM Ellen Limocon and the Lamac MPC staff remember that the farmers of Sudlon II, at first, received CASH from them. Lamac MPC staff went to the houses of smallholders to give their payment for their deliveries. This was because the farmers told them, at first, that they do not wish to join cooperatives and receive delayed payment for their deliveries. GM Ellen, thus, committed to pay in cash as soon as the deliveries are made. After sometime, it was the smallholders themselves who told Lamac MPC that they are interested in having a savings account in Lamac MPC and if it is possible, they wish to transact in a branch nearby (the existing branches were far from Sudlon II at that time). GM Ellen asked the clusters in Sudlon to recommend a place where Lamac MPC can also look for other clients. It was the farmers who suggested the current location of the cooperative's Sudlon Branch.

<sup>52</sup> On a typical day, two trucks of Lamac MPC go around Cebu delivering the orders direct to the stores. In the afternoon, the trucks go to the consolidation areas of FEP clusters to get the supply of vegetables. The

At first, Lamac MPC's BDC was not earning; its operations including the salary of its head, the marketing staff, the drivers, and the vegetable sorters/packers were "subsidized" by the cooperative. In a year, the BDC started to become self-liquidating; it was able to pay for the drivers, sorters/packers, and marketing staff. At present, two years after they opened, the BDC is now earning profits and Lamac MPC notes that they have already recouped their initial social investment. Data on costs and returns of Lamac MPC's BDC operations are not yet identified and would be an interesting action research follow through.

## **Conclusions and lessons learned on inclusive and sustainable value chains**

From the time Jollibee Group Foundation (JGF), Catholic Relief Services (CRS), and National Livelihood Development Corporation (NLDC) started the Farmer Entrepreneurship Program in 2008 up to 2014, the program has reached over 2,000 farmers and partnered with various groups in 28 areas in the Philippines.

FEP shows elements that are needed to set up an agribusiness involving smallholder farmers. These elements (or generic conditions) allow stakeholders to engage in, address start up hurdles, and sustain inclusive value chains.

### ***A. Inclusive agribusiness begins with a bundle of interventions that include organizing, clustering, capacity building, financing, and linking to corporate buyers***

The lessons from FEP show that entering into an inclusive agribusiness with smallholder farmers entails making available a set of essential interventions at the onset of the agribusiness. Silo-type provision of interventions does not work because the interventions are all needed at the same moment. This goes against the grain of (most) government interventions where agencies provide fragmented assistance. Most of the time, non-bundled inputs lead to non-synched provision of interventions. Also, while it is important to provide a package of interventions to the farmers, sequencing interventions is critical. Too much too soon could lead to challenges that could have been faced when farmers groups have more experience working together and managing their enterprises.

In regard to agriculture financing, the bundle of interventions means credit tying or interlinking smallholders' access to credit and their receipt of services (capacity building, organizing, linkage with corporate buyers) with the delivery and marketing of the majority of their harvested goods to their cooperatives.

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harvests go to Lamac MPC's Parian Office for sorting and packing (the ones for Metro Gaisano needed to be packed in clear plastic wraps and assigned barcodes with prices). The next day, the supplies are delivered to the buyers. Lamac MPC's BDC handles these transactions, notifies the branches of the payment due to the FEP farmers, and in turn, the branches issue payments.



### ***B. Of the bundle of interventions, the role of the buyer is critical***

JFC is the carrier of information e.g. on the products, processes, standards, and contracting procedures and it has resources to carry the initial (and often subsequent) costs. In deciding to be inclusive and sustainable, it tilted the chain towards inclusion and sustainability.

The case of Dalaguete farmers is telling. In their first year of implementing the FEP, they had a bundle of interventions except linkage to corporate buyers. The farmers had financing from Lamac MPC, they were organized or clustered by the partners, they received capacity building efforts including agri-extension services but Chowking, Metro Gaisano supermarkets, hotels, and other buyers are not yet buying from the smallholders. During this juncture, the farmers did not earn as much from the program, in fact, some of them found it difficult to pay for their loans. When major buyers came in to the arrangement, their involvement reduced the production costs and improved buying prices.

This shows that financial inclusion needs to be tied with other mechanisms that will improve the inclusivity and sustainability of value chains. Financial inclusion alone could lead to problems if it is not part of a “complete” set of interventions that include capacity building, farmers’ organizing, and linkage to major buyers.

### ***C. The bridge between partners is critical***

The role of JGF as a bridge between the company on the one hand, and the farmers and the FEP partners on the other hand, is critical. In the stories of FEP, it is apparent that the capacities, values, and culture of smallholder farmers and corporations are different and it is often incumbent upon the JGF to narrow these gaps. Moreover, JGF, which has a social development approach, also ensures that the relationship between the corporation and the smallholders are not inequitable. JGF as a bridge made the market transaction “relational,” “relationship-based,” or “partnership-based” and not purely “arms-length.” This allowed costs and risks to be shared among partners.

The bridging role of NLDC is critical too. NLDC linked, informed, and provided incentives to its network of microfinance institutions to join FEP and lend to smallholder farmers and their cooperatives.

### ***D. Local government units welcome partnerships for inclusive value chains***

According to the former mayor of San Jose City, many LGUs want to have inclusive and sustainable programs but they do not know how. For many of these local chief executives, they stopped when they do not have access to potential partners and do not have handles in undertaking an inclusive program. Former San Jose City Mayor Marivic Belena persisted in understanding and addressing different issues. She tolerated initial ambiguities associated with piloting FEP and was patient with the processes. She encouraged other stakeholders, particularly the farmers, to stay with the program and hurdle tipping points.

### ***E. Long-term relationships over short-term gains***

There were instances when other buyers offer higher prices to the Kalasag farmers and smallholders assisted by Lamac MPC. The farmers shared that they have been tempted to renege on their 60% commitment to the program by selling all of their harvests to local buyers. At some point, however, they decided that the long-term gains of partnering with JFC are more profitable than the short-term and higher price offers of traders and buyers.

### ***F. Formal and informal contracts***

FEP is replete with contracts that reinforced one another. On the one hand, there are formal contracts between the company and the farmers' cooperative and it is surmised that JFC's pre-commitment to buy from the smallholders triggered, among other mechanisms, the seriousness of program partners and sent positive signals to financial service providers. The commitment of partners like CRS, NLDC, local government units, and other on-the-ground stakeholders translated into human and financial contributions also lessened the risk for financial intermediaries. On the other hand, the informal contracts were also evident. The role of norms, customs and reputation-based mechanisms were strong in relatively small communities with polyvalent relations.

## **Opportunities for scaling up the FEP**

There are at least four opportunities for scaling up and improving the program.

1. Groups like the Kalasag farmers are now considering the need for growth or tipping point financing. The leaders feel that they could already purchase and manage their own cold storage. This equipment should be a business on its own and JGF could help the farmers in making sure the group is ready to embrace this higher-level challenge. The Kalasag farmers could already stand on their own and the purchase of a big asset is a test of their entrepreneurial knowledge and resilience.

The Kalasag farmers could also "scale up" in terms of incorporating gender and development in their agri-enterprise work. Including the women in decision-making processes, aside from tapping them for onion peeling, could improve the inclusiveness and sustainability of the cooperative. Gender-sensitive financing could also be explored by Kalasag. They could do this by learning concepts like gender mainstreaming and slowly incorporating the ideas in their organization.

2. To assist farmers like Kalasag and other groups and players in FEP, the partners, particularly JGF, could expand its work with stakeholders in delivering the needed public goods such as infrastructure, crop insurance, agricultural guarantee, and information. These public goods are important in improving the chances of success of value chains. In regard to the Kalasag farmers growth plans, these public goods will improve the chances of success (or failure) of growth or scaling up plans.

JGF could also work with banks (rural and commercial banks), particularly with their corporate social responsibility arm (which could be their Foundations) in discussing various possibilities for agriculture financing. Banks are constrained to lend to smallholders

despite of the need to comply with the Agri Agra Law. However, their corporate foundations or their CSR programs could develop projects, incubate these projects, work with partners, and build incentives around financial inclusion mechanisms for smallholders and other actors in inclusive value chains. At this juncture when FEP has proven to be success in many aspects, the Jollibee Group Foundation could take part in this higher level, more societal, role by engaging stakeholders in delivering the needed (public and private) goods and services.

This requires a lot of effort. In the first place, this means building the deliberative capacity of farmers so they could engage various stakeholders. The efforts of the JGF on developing farmer leaders through the FEP Leadership for Agro-enterprise Development (LeAD) training program is a big step in this direction.

3. Related to the second proposal, FEP could also engage with policymakers and financial institutions in understanding and maximizing the available policies and programs on inclusive financing including the Value Chain Financing framework of the Bangko Sentral ng Pilipinas and the Board of Investments' proposed incentives to companies that undertake inclusive business. Along with this, the efforts of the IAVCC to engage policymakers in continuing conversations on available policies and programs could be maximized.
4. Given the commendable results of FEP, there is a need to widen its sphere of inclusion by expanding it. Based on initial information on the net income of Kalasag farmers, it is surmised that they have higher income compared to other smallholders in the same or nearby communities planting the same crops (i.e., onions, rice, pepper, and other vegetables). In fact, the farm equipment and houses of Kalasag farmers look better than their neighbors. The improved confidence of farmers and enhanced leadership and management capabilities of leaders are also evident and thus, it could be expected that the Kalasag farmers would experience further improvements in the future.

This success however, could create an "insider-outsider" mentality in case the FEP assisted groups are the only ones prosperous in a community that is poor. This is possible if the program would remain limited to a few groups or if the trajectory of building new farmer groups is not thought of carefully. The paradox of inclusion is that it creates exclusion.

As a caveat, "replication" needs to be approached carefully. Replicating FEP is not an easy task since conditions could not be exactly replicated (this is not a laboratory experiment). Serious thinking needs to be put into place, including discussions and levelling off conversations with partners, are needed until an acceptable "FEP model building mechanism" is reached.

## Saradit ng Kristiyanong Komunidad Rice Processing Center (SKK RPC)



When Fr. Mike Dela Rosa, currently the chair of the Saradit na Kristiyanong Komunidad (SKK) Farmers Corporation, was ordained as priest, his first parish was in Cabusao, Camarines Sur. At that time, around 1989, the Diocese of Libmanan just separated from the Archdiocese of Caceres and the 18 priests of the new diocese were wondering how they could do their duties given the underdevelopment of their assigned municipalities. In the first place, there were no roads and the way to go around was through the railroad system. They became known as SaPaDaPa: "Samahan ng mga Pari sa Daang Bakal" (M. Dela Rosa, interview, August 29, 2017).

Around this time, Catholic dioceses and parishes in the Philippines were called upon to set up Basic Ecclesial Communities (BECs) or small communities who are ministered by parish priests and lay leaders. While the Diocese of Libmanan had experiences in forming BECs or Saradit na Kristiyanong Komunidad (SKK), these folded up when development projects ended. In the early 1990s, they had a Prelature of Libmanan Development Foundation, Inc. (PLDFI) that served as the development arm of the former Prelature, which became a diocese, and PLDFI served as the Social Action Center. PLDFI organized BECs through projects and disaster relief operations. When the projects of PLDFI were finished, the BECs also became inactive. The first bishop of the Diocese of Libmanan, Bp. Prospero Arellano, led a retreat of priest, deacons, and seminarians regarding this observation. The retreat led to a rethinking. The Diocese decided, from then on,

that BECs must be “owned” by priests and as such, must be organized by parishes. With this, they temporarily shelved the PLDFI (G. Pitapit, interview, August 25, 2017).

Cabusao became the model of BECs after the retreat. In Cabusao, Fr. Mike was joined by a seminarian, Granwell “Dawe” Pitapit. Together, they profiled households and visited communities to invite people to set up or join BECs or SKKs. Their goal was to ensure that every Catholic in Cabusao is part of an SKK and they used several strategies – visited households, serenaded families, held masses several times on a Sunday, and visited far flung villages – to be able to meet their objective. They succeeded. Catholics in Cabusao were organized in SKKs and overtime, the results encouraged them: neighbors who were not talking to each other reconciled, cohabiting couples asked to be wed, and people started attending masses. These happened even without any social development project in Cabusao.

Eventually, the PLDFI was reopened to support the existing BECs through development projects. Because they were already a diocese at that time, PLDFI was renamed to the Caritas Diocese of Libmanan or CDL.

One of the projects of the CDL was sustainable agriculture, particularly organic rice farming, with the assistance of the National Secretariat for Social Action (NASSA) of the Catholic Bishops Conference of the Philippines. Another opportunity to enhance organic agriculture came in 2006 when Fr. Jovic Lobrigo, the Social Action director of Legaspi, invited the social action centers to form the Bicol Consortium for Development Initiatives (BCDI) to be able to maximize opportunities from Manos Unidas, a development funder from Spain. With these, CDL received assistance to be able to build the capacity of farmers on organic agriculture. During the 4-year project of BCDI (2008-2012), CDL formed the Saradit na Kristiyanong Komunidad Farmers Association or SKK OFA. It is composed of organic agriculture practitioners from 5 barangays covered in the BCDI project. Through donations and savings from projects, CDL was able to purchase a 4-hectare land that the farmers use for demonstration farming.

However, as the farmers’ production of organic rice progressed, they began asking Fr. Dawe regarding the marketing of their increasing surplus of organic rice. Fr. Dawe realized that having a rice mill, one with dryer and storage, is an answer to the lack of alternative financing sources and *palay* buyers. He wrote a proposal to the Department of Agriculture requesting for a rice processing center. His proposal was approved.

The Saradit na Kristiyanong Komunidad Rice Processing Center (SKK RPC) is a Php 16 million rice processing center level 2, which included the following:

- a) Multi-pass rice mill with 1.2 tons per hour output capacity and minimum of 65% milling recovery,
- b) One-ton weighing scale,
- c) One unit of portable moisture meter,
- d) Three sets of recirculating grain dryer with biomass furnace with a holding capacity of 6 tons of wet *palay* (unhusked rice) per set,
- e) 550 square meter warehouse with complete drainage, and
- f) A 3-phase line electrical system including transformers.

On top of this, the Department of Agriculture Bicol Regional Office (DA RFU V) that donated the RPC also added

- g) 360 sq. meter warehouse,
- h) Additional flatbed dryer with agitator, and
- i) Multipurpose drying pavement in the first year of its operation.

On its second year, the DA also provided

- j) 1 unit combine rice harvester, and
- k) 4 WD mini tractor.

Moreover, the SKK RPC included a Php 2 million grant for working capital. An additional Php 500,000.00 worth of capacity building would have been sourced from the National Agribusiness Corporation or NABCOR, a government corporation, as part of the package. The NABCOR was closed in early 2014 and the committed money for capacity building, as well as the continuous mentoring sessions, were not provided to the management of the SKK RPC.

To be able to run the SKK RPC, partners like PinoyME Foundation, Peace and Equity Foundation, Bicol Consortium for Development Initiatives, and Simbag sa Pag-aseño, Inc. provided business development services, loans, and grants. These were critical during the startup period when the SKK RPC needed cash and assistance in order to operate.

The smallholders, who received the donation of the RPC from the Department of Agriculture, in consultation with the CDL and with the advice of PinoyME Foundation, decided to be registered as a corporation in order to gain equity. In this way, they do not have to raise all the required working capital from loans. The SKK RPC, as such, shows a value chain model with a farmers' corporation rather than a farmers' cooperative or association, which are the usual juridical entities used by smallholders.

The story of SKK RPC is rich in lessons on engaging with smallholders in rice production and processing in the Philippines, in handling a huge donated asset like an RPC, in financing the different requirements of a rice value chain, and in exploring the setting up of a farmers' corporation.

## **Brief overview of the rice industry in the Philippines**

Rice is the most staple crop of Filipinos, which accounts for its dominance in terms of production, area planted / harvested, as well as value of production. The price of Philippine rice, however, is more expensive compared to its neighbors. The presence of many unorganized buyers in rice value chains and their marketing mark-up increase the cost of marketed rice. Aside from this, the government's quest for rice self-sufficiency and the non-lifting of the quantitative restrictions on rice imports limit the entry of imported and cheaper rice.

## A. Rice dominates agricultural production

Except for provinces with rice surplus,<sup>53</sup> in general, Filipino farmers plant *palay* for consumption and sell these when they have surplus. In the Philippines, rice accounts for the biggest in terms of area planted and harvested. Farmers who do not plant *palay* as their main crop usually plant it as their second crop either during the dry or wet season depending on the cropping season of their main produce. This largely explains the huge total area planted to rice.

*Palay* accounts for 34% to 36% of total area planted/harvested every year. Coconut is a far second in occupying around 19% to 20% of total arable lands. Aside from being the most staple food of households, the huge government support for rice and other staple crops (e.g., free irrigation, free inputs, credit support, and crop insurance) over the years as well as the government's drive for rice self-sufficiency encourage rice planting.

Table 13. Select crops, area planted/harvested, Philippines, 2010-2014

Crop	2010	2011	2012	2013	2014
TOTAL (in '000 MT)	12,805.60	13,131.00	13,354.90	13,346.40	13,353.70
<i>Palay</i>	4,354.20	4,536.60	4,690.10	4,746.10	4,739.70
Corn	2,499.00	2,544.60	2,593.90	2,563.70	2,611.40
Coconut	3,575.90	3,562.00	3,574.60	3,551.30	3,502.00
Sugarcane	354.90	439.70	433.30	437.10	432.00
Banana	449.40	450.10	454.30	446.00	442.80
Other crops	1,572.20	1,598.00	1,608.70	1,602.20	1,625.80

Source: Philippine Statistics Authority Selected Statistics on Agriculture 2015

Rice accounts for 19% to 22% of the total volume of production. While sugarcane is the top most product of the country in terms of quantity of production, rice and coconut are the second and third most produced crops, respectively.

Table 14. Select crops, volume of production, Philippines, 2010-2014

Crop	2010	2011	2012	2013	2014
TOTAL (in '000 MT)	75,583.2	87,294.5	88,008.1	85,739.5	87,008.2
<i>Palay</i>	15,772.3	16,684.1	18,032.5	18,439.4	18,967.8
Corn	6,376.8	6,971.2	7,407.1	7,377.3	7,770.6
Coconut	15,510.3	15,244.6	15,863.8	15,354.3	14,696.3
Sugarcane	17,929.3	28,376.5	26,395.9	24,584.8	25,029.9
Banana	9,101.3	9,165.0	9,226.8	8,646.4	8,884.9
Other crops	10,839.20	10,853.10	11,082.00	11,337.30	11,658.70

Source: Philippine Statistics Authority Selected Statistics on Agriculture 2015

<sup>53</sup> According to Floredeliza Bordey et al., in their work on Rice Self-Sufficiency under the Lens of Provincial Analysis, there are 6 provinces that could be considered as rice surplus group (includes Camarines Sur), 16 provinces that are in the sufficient group, 39 provinces with low annual per capita milled rice availability, and 17 highly urbanized provinces that have zero rice availability.



Rice also dominates in terms of value of production. It accounts for 32% to 41% of value at current prices. Banana, a cash crop, follows at 13% to 16% of total value of production.

Table 15. Select crops, value of production, Philippines, 2010-2014

Crop	2010	2011	2012	2013	2014
TOTAL (in million Php at current prices)	673,210.30	802,720.50	797,109.40	814,730.80	927,314.40
<i>Palay</i>	229,645.00	254,265.20	292,127.00	314,760.90	378,218.50
Corn	69,698.40	87,698.10	94,143.90	90,150.50	100,629.40
Coconut	81,273.90	120,889.80	88,837.20	82,299.30	104,931.60
Sugarcane	38,547.90	56,185.50	42,497.40	40,073.30	41,299.30
Banana	106,485.70	102,556.90	107,584.10	117,158.90	130,696.30
Other crops	147,559.40	181,125.00	171,919.80	170,287.90	171,539.30

Source: Philippine Statistics Authority Selected Statistics on Agriculture 2015

The average yield per hectare of *palay* for the period covering 2010 to 2014 is 2.99 metric tons or 2,990 kilos (translates to around 59.8 cavans) for rainfed rice. If irrigated, the average yield per hectare is 4.19 metric tons or 4,190 kilos (around 83.8 cavans). The difference between rainfed and irrigated rice (24 cavans) is huge. Assuming that the buying price is Php 17.00 per kilo (National Food Authority, <http://www.nfa.gov.ph/buying-selling-price>, September 9, 2017), the variance amounts to Php 20,400.00. This drives the advocacy for free or at least affordable irrigation facilities.

### **B. Many layers of intermediaries contributing to high cost of rice**

The cost of marketing rice in the country, as whole, is high. The archipelagic nature of the Philippines as well as the limited or lack of infrastructure in many rural areas increase the costs of marketing and adds to the high rice price paid by consumers, who include smallholders.

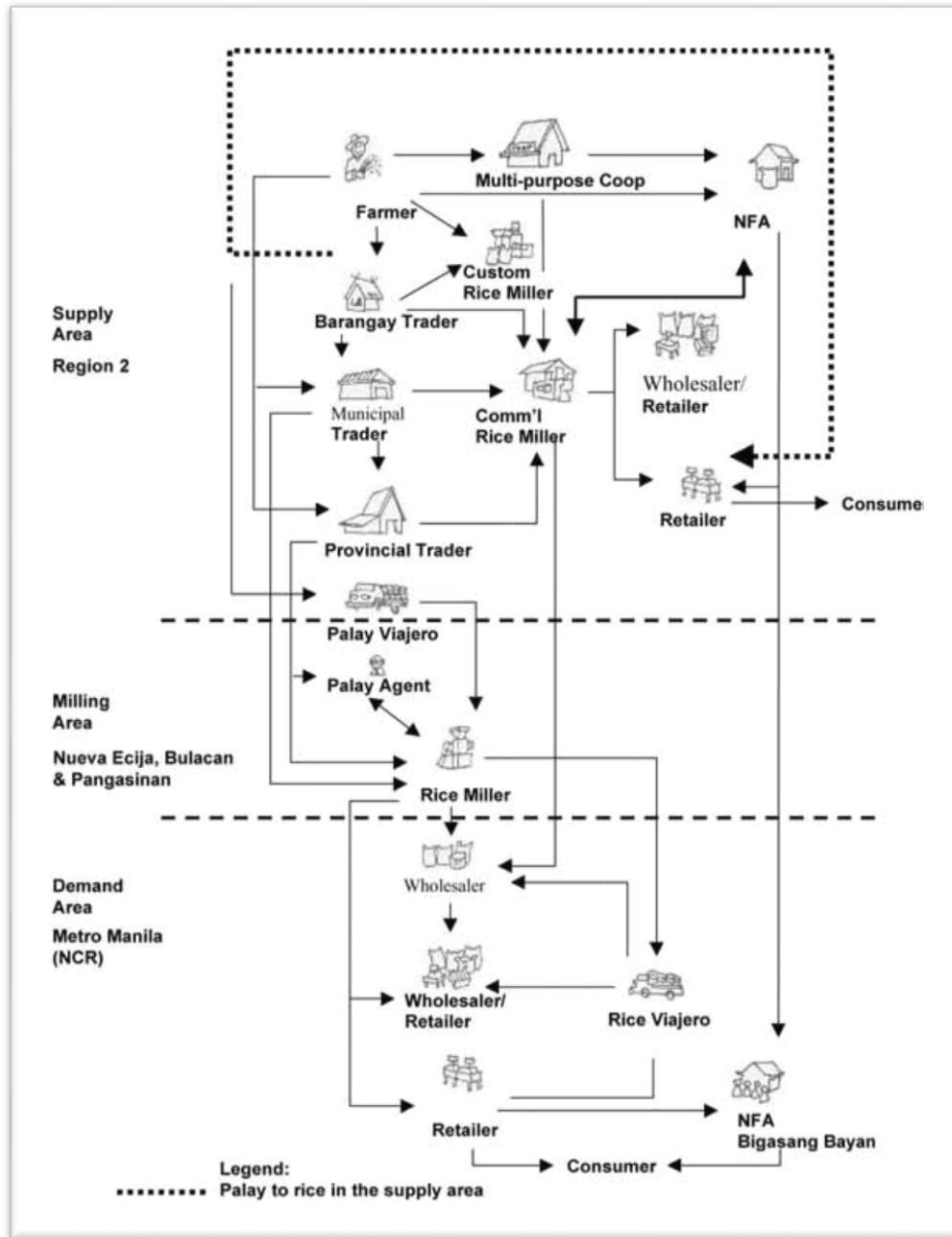
The Food and Agriculture Organization or FAO paper (2015) notes that in general, staple crops, like rice, are involved in complicated chains composed of numerous and disorganized small players (i.e., smallholder farmers, small buyers, micro to medium scale traders). A paper commissioned by the Japan Bank for International Cooperation (JBIC) in 2002 describes the many layers of intermediaries in the rice distribution system. They are usually classified by their size (i.e. barangay, municipal, provincial) and by their activities. Barangay traders are small operators who buy from farmers within the neighborhood. Sometimes, these traders serve as agents for larger traders. Municipal traders are medium to large buyers and are usually based at the town centers. Provincial traders are large operators with trucks that can pick up products and deliver these to consumers. The JBIC (2002) paper categorizes traders into six based on their activities: assembler-wholesalers (viajeros), agents or canvassers, shippers, wholesalers, wholesaler-retailers, retailers, and institutional buyers. The illustration bellows the steps and actors that turn the *palay* of farmers to the rice of consumers.

Rice marketing costs increase per step. Dawe et al. (2008) cited by Cuevas (2016) found out that gross marketing margins and percent mark-up from previous step or between market levels



are higher in the Philippines than Thailand. The Philippines also has higher marketing costs than Vietnam.

Figure 10. Categorization of traders



Source: JBIC 2002

The National Food Authority (NFA) also plays a role in the marketing of rice. The NFA's main task is to intervene in the market to stabilize rice prices by buying *palay* from farmers at a higher price and selling to consumers at lower than the market-determined prices. Farmers, through agents or their associations sell their *palay* to the NFA. The NFA classifies and puts price on the delivered *palay* according to quality.

### ***C. The quest for rice self-sufficiency and the high price of rice***

Rice is known as a political crop with the government, since the 1960s, issuing policy directives aimed at ensuring the domestic supply of rice and the continued use of the National Food Authority that “stabilizes” the price of rice. Government officials have been equating food security with rice self-sufficiency but this goal has not been realized (Briones 2016).

To achieve self-sufficiency in rice, two strategies are used: a) supporting domestic production and b) maintaining barriers to imports (protectionism). The latter strategy raises the price of rice. In general, it is cheaper to import rice mainly due to the geographic advantages of other countries, which allow them to produce rice at a lower cost (Briones et al. 2017). Insisting on quantitative restrictions (QR) on rice or putting a maximum volume to imported rice (as compared to shifting to a tariff-based regime) is not favorable to rice consumers in the country. With the recent surge in rice price, the transition from a QR to a tariff regime was promoted by President Duterte as urgent during his 2018 SONA<sup>54</sup>.

## **Rice industry in Libmanan**

Figure 11. Libmanan location map



In Libmanan, Camarines Sur, the main crops are coconut and rice. The municipality has a total land area of 32,280 hectares (covering 75 barangays) of which around 8,000 hectares or 25% are planted to rice (D. Pitapit, interview, August 25, 2017). The total rice production in Libmanan is 12,000 metric tons or 240,000 cavans. Usually, farmers plant rice twice a year (wet and dry seasons), making it their main crop and source of income. Five barangays in Libmanan benefit from irrigation services of the National Irrigation

Administration. The other barangays usually use diesel-powered irrigation to be able to obtain a higher yield even if this adds to their cost. Along with rice, many smallholders also plant lowland vegetables for consumption. They likewise engage in hog raising as extra source of income, as savings mechanism, or as a way to address shocks.

There are two rice mills in the municipality (RI and San Juan rice mills) and around 12 buyers/traders (locally called “*comprada*”), 8 of which are from Libmanan and 4 from outside of the municipality. The *compradas* provide production loans to smallholders and most of them sell to two big rice mills in Albay: Partido Milling Corporation and Albay Trading Rice Mill. One of the *compradas*, Anabella Chica-Nopra, said that in the past, they put 5% interest on their production loans to farmers. This was gradually reduced to 3% until in the last 5 years, they have already removed the interest on the loans. They just expect farmers to pay for these by selling harvested palay to them. She noted that rice production has gone down and their trading business is not as strong as before when it was her parents that managed it. She cites weather as an issue. She

<sup>54</sup> Transcript of SONA accessed through <http://news.abs-cbn.com/focus/07/23/18/read-transcript-of-president-dutertes-3rd-state-of-the-nation-address>

has farmer-clients who took out two or three loans for production within a season because their fields were flooded twice or thrice after they placed their inputs and fertilizers (A. Chica-Nopra, interview, January 17, 2018).

Aside from these local players, “guerilla” buyers also enter Libmanan during the harvest season. They park their trucks and encourage farmers to sell to them in exchange for immediate cash (D. Pitapit, interview, August 25, 2017). Local players (millers, traders, financial institutions) are left with no choice when farmers sold their *palay* to guerilla buyers despite owing them money. The *compradas* “penalize” the farmers by not lending to them during the next season or until the borrowed funds are returned.

The National Food Authority also operates in Libmanan. It buys from farmers who are members of cooperatives and have passbooks with them. Last year, when the SKK Farmers Corporation bought wet *palay* at Php 16.00/kg. (dry), the NFA purchased at Php 14.00/kg. With incentives, this price reached around Php 14.70/kg. Fr. Dawe estimates that with this buying price, which the NFA carefully studied, an average smallholder rice farmer earns around Php 2.00/kg.

Some of the farmers noted that they are turned off by NFA when they needed to wait for around 2 to 3 days before their *palay* is considered. With every day that is spent, the quality of their *palay* lessens. By the time they reach the end of the queue, the farmers are told that their *palay* has high moisture content and of low quality so they do not get the ceiling price, especially if they do not engage in gift giving. This is more unfortunate when the farmers hear that other farmers and traders are entertained earlier and are given the premium price. They felt that the process is not transparent and fair.

In 2010, Fr. Dawe placed a bid to become NFA’s contract miller. The Caritas Diocese of Libmanan (CDL) had a single-pass milling machine which they wanted to try. They wanted to gain experience in operating their milling machine and understanding better how the NFA operates. CDL and another private miller won the bid.

Based on the conditions of their agreement with the NFA, contract millers must accept milling orders weekly and they need to mill the *palay* at 65% milling recovery. If they do not reach this quota, they need to replace it the next week. However, if they reach more than the quota, they need to return the excess to the NFA. Fr. Dawe noticed that they often received low quality *palay*. It turns out, the NFA classifies *palay* in terms of PD1 / PW1 (*palay* dry or *palay* wet) or good quality *palay* and PD3 / PW3 or poor quality *palay*. CDL often received PD3 *palay* and there were times when their milling capacity hovers around 50%.

Fr. Dawe raised this issue with the NFA. The stoker (*bodegero*) and the classifier were terminated. He learned that the classifier was also removed because during that season, most of the NFA purchases were classified and paid at the ceiling or premium price. Technically, there should not have been too much PD3/PW3.<sup>55</sup>

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<sup>55</sup> Fr. Dawe did further investigation. He uncovered that other contract millers substitute excellent-quality rice (PD1) with average quality rice from their stock. In this way, they earn twice from their contract with the government.

## **Timeline of the SKK RPC**

The SKK RPC traces its origins to the Basic Ecclesial Communities that were formed in the early 1990s, which led to the formation of the SKK OFA. From the felt need for marketing the organic agriculture and undertaking drying and milling, the CDL, through Fr. Dawe, requested for an RPC from the Department of Agriculture. But numerous problems arose during its set-up phase leading to overhauls in its management, policies, and mechanisms. At present, the RPC is more stable in terms of steadily increasing income accruing from improved procurement of *palay* and marketing of white and colored (or organic) rice. It is also more stable in regard to the commitment of farmer organizations and the Board of Directors in supporting the RPC. The timeline could be divided into five phases.

Table 16. Timeline of SKK RPC

<b>Phase 1: Creating BECs, forming the SKK OFA</b>	<b>Phase 2: Experiencing <i>palay</i> milling &amp; marketing</b>	<b>Phase 3: Requesting for the RPC 2</b>	<b>Phase 4: Setting up the RPC 2</b>	<b>Phase 5: Stabilizing the operations of the RPC 2</b>
<b>Period:</b> 1989 to 2009	<b>Period:</b> 2009 to 2012	<b>Period:</b> Early 2013	<b>Period:</b> mid-2013 to Sept 2016	<b>Period:</b> Oct 2016 to Jan. 2018
<p>HIGHLIGHTS:</p> <ul style="list-style-type: none"> <li>- Creation of the Diocese of Libmanan from the Archdiocese of Caceres (1989)</li> <li>- The mandate to create Basic Ecclesial Communities or BECs (1991)</li> <li>- The creation of model BECs in the new Diocese (Cabusao)</li> <li>- The re-opening of PLDFI and its renaming into the Caritas Diocese of Libmanan (CDL) as the social action center to provide development projects to BECs</li> <li>- Creation of the SKK OFA from the 5 farmers' organizations that practiced organic agriculture farming through the projects of CDL with the CBCP NASSA and BCDI</li> </ul>	<p>HIGHLIGHTS:</p> <ul style="list-style-type: none"> <li>- By the time the organic farming practitioners were about to harvest organic rice, CDL requested marketing funds from BCDI. It released Php 500,000.00 for marketing but many farmers have already harvested and sold their <i>palay</i> to local buyers</li> <li>- CDL requested for and was able to secure a single-pass rice mill from the DA (2010). By the time it was released, many of the farmers already sold their organic produce</li> <li>- CDL, through Fr. Dawe, undertook contract milling with the NFA to use the single-pass mill (2011)</li> <li>- The single-pass mill was shelved, and the production of organic rice and marketing of products also ended</li> <li>- CDL joined the advocacy for the</li> </ul>	<p>HIGHLIGHTS:</p> <ul style="list-style-type: none"> <li>- Sabas Mabolo, a leader of the Liberal Party, invited Fr. Dawe to a meeting with the Department of Agriculture where Fr. Dawe learned that the DA allocated two units of RPC 2 for Bicol</li> <li>- Fr. Dawe wrote a proposal to the DA on behalf of CDL. When the guidelines were finalized, it noted that only farmers groups could receive the RPCs.</li> <li>- The proposal was approved</li> <li>- CDL created a proposal for Pondo ng Pinoy for community organizing or social preparation. It granted Php 300,000.00 for this effort</li> </ul>	<p>HIGHLIGHTS:</p> <ul style="list-style-type: none"> <li>- The rice processing center was set up starting mid-2013.</li> <li>- When the RPC was delivered, the dryers were not operational and the mill was not available.</li> <li>- The SKK RPC already tapped staff members even if the RPC was still non-operational. The staff were trained by the DA on the operations of the RPC but were not paid by the RPC.</li> <li>- Because of the length of waiting time (mid-2013 to March 2014), most of the trained (but unpaid) staff wanted to leave the RPC.</li> <li>- The RPC opened in March 2014 even without dryer and mill. It engaged in <i>palay</i> buying and selling.</li> <li>- In September 2014, the multi-pass mill arrived but it needed to be tested so the RPC spent for testing materials.</li> <li>- In 2014, Fr. Jovic of the SEDP and BCDI and Dan of PinoyME Foundation went to Libmanan to see possibilities for partnership. The initial idea of developing CDL's sustainable agriculture program, with PinoyME Foundation crafting a feasibility study on it, was shelved. Fr. Dawe requested funding for the SKK RPC.</li> <li>- Dan offered Fr. Dawe PinoyME Foundation's social investment banking program where they will raise funds for the SKK RPC and would get a brokering fee for the service.</li> </ul>	<p>HIGHLIGHTS:</p> <ul style="list-style-type: none"> <li>- Starting October 2016, Fr. Dawe became the full-time manager of the SKK RPC replacing Sherell Baricante. Fr. Mike became the chair of the SKK Farmers Corporation that manages the SKK RPC</li> <li>- There are marked improvements in the income of the RPC. By end of 2016, the RPC gained a positive net income</li> <li>- <i>Palay</i> procurement improved from 19,250 bags of white rice by the end of 2016 to 30,996 bags by end of 2017.</li> <li>- In terms of colored organic rice, procurement target for 2017 was 5,425 bags but achievement was 6,744 (124%)</li> <li>- Rice marketing also improved. The selling of colored rice for 2017 almost doubled from their target (168%)</li> <li>- SKK RPC's payment to PinoyME Foundation, PEF, and BCDI is up to date.</li> </ul>

	<p>proposed Organic Agriculture Act, which eventually became a law. CDL was invited to sit in the NOAB, which was chaired by DA Secretary and main author of the Organic Agriculture Law</p> <ul style="list-style-type: none"> <li>- In 2012, Fr. Jovic Lobjrigo of SEDP and BCDI, invited Dan Songco of PinoyME Foundation<sup>56</sup> to speak to priests who are doing development work, particularly financing, along with their evangelical duties. Fr. Jovic gathered these priests and lay people and invited Dan as a resource speaker in several sessions.</li> <li>- After a number of sessions, Fr. Jovic and Dan agreed to pilot the lessons and initiatives. They initially considered the Sustainable Agriculture Program of CDL and PinoyME Foundation crafted a feasibility study on this.</li> </ul>		<ul style="list-style-type: none"> <li>- Andres "Jun" Ruba, a staff of PinoyME Foundation, developed the feasibility study and saw that the RPC needs at least Php 10 million. The social investment banking proposal was presented to the board of PinoyME Foundation and they decided to lend to SKK RPC.</li> <li>- PinoyME Foundation loaned Php 2M to CDL for the use of the RPC. It also tapped the Rotary Club and it provided Php 3M as grant to PinoyME Foundation conditional on the repayment performance, which it could utilize as loan to the SKK OFA. The total loaned amount for the use of the SKK RPC was Php 5M.</li> <li>- While the borrowed funds from PinoyME Foundation were for working capital of the RPC, its management also used it for production loans to smallholder farmers, for capital expenses like improving the wall of the warehouse, and for purchasing equipment like digital weighing scale.</li> <li>- In 2015, Fr. Dawe also asked the PEF for a grant (Php 1.3 million) for cluster organizing and formation, capacity building, and staff salary. PEF included a Php 300,000.00 loan to the grant.</li> <li>- The first full operation of the RPC was in May 2015</li> <li>- In 2015, the interim board of the SKK RPC was set up. Sherell Baricante became the general manager and Fr. Dawe became the chair</li> <li>- By October 2015, the SKK FC was registered with the SEC. The interim</li> </ul>	<ul style="list-style-type: none"> <li>- The Board of Trustees of the SKK RPC, along with Dan, meets regularly to address issues. The general assembly also meets for long term planning</li> <li>- For 2017, the SKK RPC was supposed to pay Php 1.5M to PinoyME Foundation. It was able to exceed its target by paying Php 2M</li> <li>- The payment to PEF is on time</li> <li>- SEDP provides production loans to farmers. They reach 168 farmers by end of 2017.</li> <li>-</li> </ul>
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<sup>56</sup> See **Error! Reference source not found.** B for a brief profile of Dan Songco and PinoyME Foundation

			<p>board was replaced by the new board of trustees, which provided equity.</p> <ul style="list-style-type: none"> <li>- The SKK RPC defaulted on their second tranche payment to PinoyME Foundation in June 2016. PinoyME Foundation noted the "bad decisions" that were undertaken by the SKK RPC management. When PinoyME Foundation looked at the financial reports, many were not in order and the funds were depleted. These were raised in meeting in late 2016 with Bp. Jose Rojas in attendance. Bp. Rojas appointed Fr. Dawe as full-time manager of the RPC and pulled him from the CDL.</li> <li>- In that meeting, PinoyME Foundation became a co-manager of the SKK RPC and Dan started sitting in the Board as ex-officio member, adviser, and provider of business development advice.</li> <li>- The loan from PinoyME Foundation was restructured. Every month, the SKK Farmers Corporation pays PinoyME Foundation Php 50,000.00 as management fee. Of this, PinoyME Foundation gives Php 30,000.00 honorarium to Fr. Dawe as full-time manager.</li> </ul>	
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## Smallholder rice farmers: Pre-RPC situation<sup>57</sup>

The farmers remember a time when Libmanan was the *tambobong* or rice granary of Bicol. This was in the early 1990s when rice production was at its peak and the farmers had high productivity and good income. They remember that there was always sufficient rice and other food on their tables. They felt that nobody was poor enough not to have food.

The *tambobong* was swept away by Typhoon Rosing (international name Angela), a category 5 typhoon that ravaged the Bicol region. The typhoon killed nearly 900 people and caused Php 10 billion in damage. This was the strongest typhoon to have hit in 25 years. Typhoon Rosing flattened homes and devastated farmlands. Eventually, the farmers recovered. But rice production declined given lower production capital and less access to financing compared to the situation before Typhoon Rosing. The distinction and pride of being the *tambobong* of Bicol was lost.

Moreover, another major catastrophe hit in December 2006: Typhoon Reming (international name Durian) which was a category 4 typhoon. Typhoon Reming killed around 1200 people and caused around Php 5 billion in damages. The typhoon carried the lava from Mayon Volcano and place these on rice lands. Jaime Salazar, field classifier of the SKK RPC, remembers that it took them one year to finally remove the lava or mud from their farms, as such, farming was minimal. During this period, the farmers had no source of income and they incurred debts for their household needs which led them to go to informal loan providers that imposed high interest rates. From that point till the present, banks and other financial institutions no longer operated in Libmanan while buyers and traders who have capital for production loans multiplied (SKK Farmers Corporation staff, FGD, June 5, 2017). For Fr. Mike, the loss of the *tambobong*, was not due to the typhoons per se but the rise of informal finance providers that engaged in usurious and exploitative lending to smallholders (M. Dela Rosa, interview, January 17, 2018).

From 2010 to 2013, or shortly before the SKK RPC became operational, the farmers remember that they mostly sourced their production capital from trader-lenders. Usually, they incurred loans amounting to Php 20,000.00 per hectare in the form of inputs. During harvest season, they pay for the principal amount plus 20% interest rate (at 5% per month). Their payment is in the form of *palay*, which was bought at Php 9.00 to Php 13.00 per kilo (dried). Guerilla buyers, or those who entered their communities and bought on the spot, or the National Food Administration, purchased at a higher price. However, the farmers who wished to honor their commitment to their trader-lenders had no choice. They know that it will be difficult or shameful to borrow for their production requirement or for their other needs if they do not repay their loans and sell to the trader-lenders. In fact, they felt uncomfortable and ashamed to pay for their principal loan and interest in cash. Norms dictate that they pay for their arrears by selling an equivalent value of *palay* to trader-lenders. Smallholders also felt that on top of paying for his/her loan in the form of *palay*, they also needed to sell another portion of their harvest to the financier/buyer.

Dante Merced, president of the Candato, Labao, Patag and Tarum Farmer's Association, shared that he obtained a Php 40,000.00 loan from a trader-lender. No interest was imposed on the principal loan. During harvest, he paid for his loan in the form of *palay* and he felt obliged to sell another 100 bags or cavans (his harvest for 1 hectare) to this trader (D. Merced, interview, June 5, 2017). If harvest was

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<sup>57</sup> The stakeholders were not able to gather key information about the farmers at the start of their intervention. This section is based on the stories or anecdotes of farmers.



plenty, the farmers divide it in a way that they fulfill their obligations (financial and debt of gratitude) to trader-lenders and then they sold the rest to other buyers that offered higher buying prices.

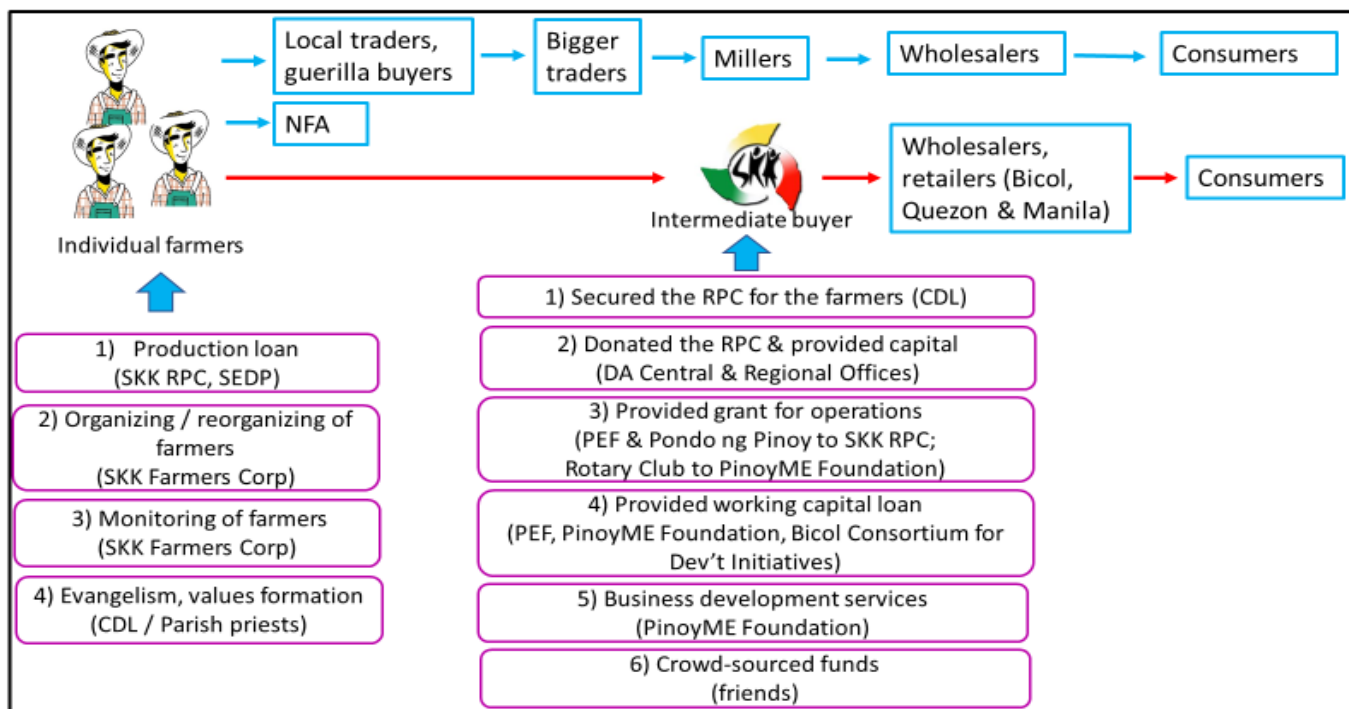
Some of the farmers also sold their *palay* to NFA through their farmer's organizations. To be able to do this, they needed a passbook. The queue to be able to sell to the NFA takes around 2 days. During wet seasons and the farmers did not have a way to dry their *palay*, the inefficiency of the NFA queue diminished the quality of their yield and reduced their income. Farmers also complained that the NFA tested the moisture content of their *palay* by getting approximately 1 kg. from every bag. This reduced their volume. On top of this, farmers also perceive the NFA as corrupt. They felt that there was bribery in the measurement of the rice moisture content, which determines the price. The queuing system is also believed to be corruption-ridden such that those who gave gifts were prioritized. Sometimes, the farmers did not use their group's passbook in selling to the agency. Rather, they tapped and paid the traders who also had passbooks. Doing this placed them ahead of the queue.

It can be seen that rice farmers in Libmanan face wicked problems including natural disasters, presence of too many disorganized buyers that purchase rice at low prices, and low provisioning of public goods like agriculture extension services and infrastructure. What makes the problem wicked is not just the presence of these problems but their interconnection, which makes the problems hard to unpack and therefore, difficult to address. Rice farmers borrow from and sell their products to trader-lenders. Because of this, the farmers remain unbanked and could not develop financial records, which makes them tied to the informal lenders. In this set up, the farmers also do not have crop insurance making them seen by financial service providers as high-risk borrowers.

## **Program interventions**

The value chain of the rice farmers and other players in Libmanan's rice industry improved with the set-up of the SKK RPC. The facility provided an alternative to the smallholder farmers in terms of source of inputs and production financing as well as buyer of *palay*. The illustration shows the current value chain.

Figure 12. Value chain of SKK RPC



The value chain shows that individual smallholder farmers sell wet or dry *palay* to three types of buyers: a) the “traditional” buyers, which include the *comprada* or trader-lenders that are often the source of production and other loans, b) the NFA, and c) the SKK RPC. The members of the 18 farmers organizations under the SKK Farmers Corporation are the priority sellers of the SKK RPC although during some period, the management had to turn down purchase even from these farmers given the limited buyers of rice and the overflowing of the warehouse.

The SKK RPC dries and then mills the *palay* into white or colored rice. It then sells the milled and packed rice to BEC members through *Bigasan sa Parokya*, a program of the Catholic Church. Thus, the value chain is also circular, with smallholders from BECs selling to the SKK RPC, which in turn, sells to BECs. However, there were initial problems in running this circular flow set-up. Failing to secure the support of the parish-based rice centers in buying stock from the RPC and delays in payment, the business operation during the early periods of the RPC was at risk, necessitating major marketing efforts to unload inventories (e-mail correspondence with D. Songco, Jan. 27, 2018).

Aside from the BEC, other buyers include wholesalers and retailers in Bicol, Quezon, and Manila. The wholesalers sell these to wholesaler-retailers or to retailers and the buyers sell these to end consumers. In particular, colored rice are usually packed by the SKK RPC for wholesalers who repack these for their own brands (e.g., Sunnywood that repacks these for their brands like Harvester and Jordan).

To enable the farmers to sell to the SKK RPC and in turn, to assist the SKK RPC in its operations, two levels of inputs or interventions are: a) to the smallholders and b) to the SKK RPC.

### **A. Assistance to smallholder rice farmers**

The SKK Farmers Corporation's interventions include looking for access to production financing through the Simbag sa Pag-Asenso or SEDP, values formation, and the provision of simple farm implements. The farmers note that they need agricultural extension services particularly in regard to varieties of inputs and plant care but these are not provided by any of the stakeholders including the local government.

### **A.1. Production financing**

The SKK RPC partnered with Simbag sa Pag-asenso Inc. (SEDP) for the production requirements of the farmers. SEDP is a microfinance institution that provides financial and non-financial services as well as training and formation to families aimed at improving their socio-economic conditions, empowering them politically, and enhancing their spiritual well-being (SEDP website, <http://www.sedp.ph/about-us/>, September 14, 2017).

While not yet institutionalized, there is implicit understanding between the borrower, SEDP, and SKK FC that the farmer is expected to sell part of their harvest to SKK RPC. This available channel for financing is promoted through presidents of farmers organizations (FOs) and SEDP Community Development Workers. These qualified FOs and their members were endorsed to SEDP by SKK FC.

At first, SEDP only financed 20 farmers but with constant conversations to the concerned branch manager explaining the programs of the SKK Farmers Corporation and the viability of the enterprise, SEDP now lends to around 180 smallholder farmers. There is still continuing dialogue between SKK FC and SEDP to further increase this number, but the phasing depends on their workers and the farmers meeting the lender's criteria<sup>58</sup>.

Similar to micro-finance products, SEDP conducts weekly meetings with the borrowers. The meetings include updating on production and marketing as well as sharing of values based on Biblical teachings.

### **A.2. Higher *palay* buying price**

The SKK RPC buys *palay* at a higher price (from Php 50 cents to 2.00 per kg). Fr. Dawe introduced this concept as another way to wean away the smallholders from the trader-lenders, guerilla buyers, and the NFA. This is also consistent with the original intention of the SKK RPC, which is at the core of their business model, of giving smallholders "more economic and social leverage in the rice value chain." It is also seen as an initiative that aims "to bring back the glory of Libmanan as the rice granary of the Bicol region" (G. Pitapit, interview, August 25, 2017).

### **A.3. Values formation and capacity building**

Part of the interventions at the level of smallholders is the continuing values formation of the leaders who sit in the Board of the SKK Farmers Corporation and the other leaders of farmer's organizations. These efforts are coursed through BECs or through meetings with farmers. The SEDP also provides values formation and Bible-based sharing during the weekly meetings with the borrowers.

The Caritas Diocese of Libmanan (CDL) through the Basic Ecclesial Communities or Saradit na Kristiyanong Komunidad provides the evangelism and values formation to the farmers based on the following stages of BECs: a) belongingness and healing, b) formation and discipline, and c) missioning to communities. Fr. Mike also provides capacity building to smallholders including technical assistance on organic agriculture and colored rice production.

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<sup>58</sup> Information in this paragraph and the preceding one were taken from email correspondence with Fr. Pitapit

#### **A.4. Provision of small farm implements from solicitation activities**

During special events, the SKK Farmers Corporation solicits small farm implements from its partners like the Department of Agriculture of Region V and distributes these to the farmer's organizations. One of SKK Farmers Corporation's partners is LIBRATE or Libmanan for Reform, Accountability, Transparency and Empowerment of People, a non-profit, volunteer-based organization that conducts activities and generates resources including farm implements and donates these to the SKK Farmers Corporation. LIBRATE founders, officers, and members include Fr. Dawe, Sherell Baricante (former SKK RPC manager), Mary Ann Ocampo (SKK RPC staff), and Art Cantos (SKK RPC independent board member). During the Tambobong Festival of 2017, LIBRATE was able to solicit water pumps and other farm implements and donated these to the SKK Farmers Corporation.

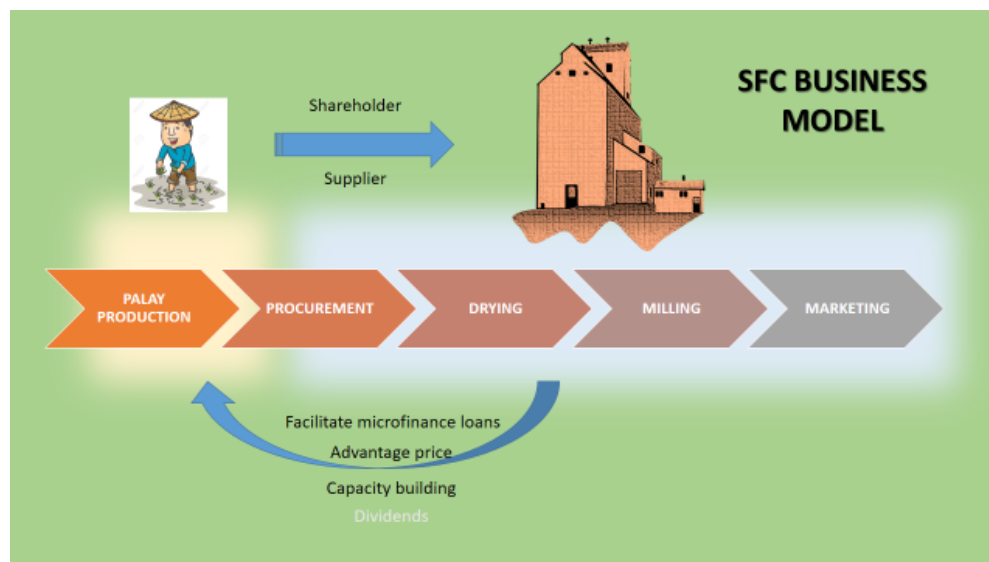
#### ***B. Assistance to the rice processing center***

The assistance poured by the Caritas Diocese of Libmanan (CDL), PinoyME Foundation, Peace and Equity Foundation (PEF), Bicol Consortium for Development Initiatives (BCDI), and other partners in the funding and management of the rice processing center is consistent with the Food and Agriculture Organization or FAO's recommendation on focused assistance to small buyers (FAO 2015). The FAO report notes that numerous buyers make it difficult for smallholders to anticipate demand and price. Based on the FAO report (2015), focusing on the capacity building of small buyers contributes to the following: a) reliable demand from smallholder farmers, b) increased production, and c) improved confidence of the farmers in the markets.

Focusing assistance to small inclusive buyers like the SKK RPC improves the inclusiveness of the rice value chain. The SKK RPC provides an option to the farmers in terms of interlinked credit and marketing where credit is linked to the selling of the farmers' *palay* to the SKK RPC. This is somewhat similar to their relationship with trader-lenders except that the SEDP has lower interest rate and the SKK RPC buys *palay* at a higher price than the trader-lenders. With these features, the farmers that are involved in the SKK RPC chain, arguably, could have higher net income than smallholders in other, more traditional, value chains.

Figure 13 shows the business model of the SKK Farmers Corporation by plotting it in a rice value chain. It shows that smallholders are not just suppliers but shareholders of the corporation. To be effective, the SKK Farmers Corporation needed the assistance, particularly the financing assistance, of its partners.

Figure 13. SKK Farmers Corporation business model



Source: PinoyME Foundation

### B.1. Financing the requirements

In order for the SKK Farmers Corporation to purchase from smallholders and eventually, to sell rice to buyers, it needs fixed assets. A new and higher wall was built, a digital weighing scale was bought, and the road within the NIA compound, which will lead to the RPC and the warehouse, were filled and concreted. Aside from these, the SKK Farmers Corporation also needed working capital, which in the estimate of PinoyME Foundation in the feasibility study that they made amounted to Php 10 million. The working capital is needed primarily to be able to purchase the *palay* of the smallholders, so in turn, they could pay their loans to SEDP and other lenders. Without working capital or buying fund, the farmers will be selling to other buyers to be able to earn income and pay their lenders.

The PinoyME Foundation, a rural enterprise incubator created in 2007 by former President Corazon Aquino, initially considered serving as a social investment banker. In earlier discussion with Fr. Dawe when he was looking for funds for operating the RPC, Dan Songco of PinoyME Foundation offered to raise resources. The SKK RPC would pay a fee for the raised funds. The PinoyME Foundation crafted a feasibility study on the SKK RPC and found that it requires at least Php 10 million to initially operate. Given the feasibility of the SKK RPC, the PinoyME Foundation loaned its own resources to the SKK RPC amounting to Php 3 million. It also raised Php 2 million from Rotary Club; as such, the total arrears of the SKK Farmers Corporation from PinoyME Foundation amounts to Php 5 million.

The Peace and Equity Foundation, which provides loans and grants to civil society organizations including cooperatives, peoples' organizations, faith-based groups, and social enterprises, initially provided a Php 1.3 million grant to the CDL for the use of the SKK RPC. This was used primarily to organize the BECs or SKKs and pay part of the human resource requirements. When the SKK RPC was operating, the PEF provided a Php 4 million loan.

The Pondo ng Pinoy is a movement for social transformation through evangelism. It has resources that help in the development efforts of the Catholic Church. In 2013, Pondo ng Pinoy provided Php 300,000.00 as grant to the SKK RPC to undertake social preparation and community organizing.

## **B.2. Providing business development services**

Aside from financial resources, business advice is also provided by PinoyME Foundation to the SKK RPC leaders and to Fr. Dawe as manager. Dan attends the regular meetings of the Board and brainstorms on the plans and prospects of the SKK RPC. The PinoyME Foundation is also re-documenting the financial report of the SKK Farmer's Corporation for 2016. It is tapping its network of financial auditors. For fiscal year 2017, it linked the SKK Farmers Corporation with the auditing firm, Sycip Gorres and Velayo (SGV), to do the audit.

### **Results of organizational reforms**

Because of the huge requirements of operating the rice processing center, major problems surfaced in mid-2016 causing changes in the leadership and management of the SKK RPC.

The SKK RPC needed several types of financing at the same period (2014-2016) which meant cash outflow was high. For the smallholders, financing was needed for production (e.g. purchase of inputs, hiring of laborers for land preparation) and pre-harvest activities (e.g., spraying, hiring of workers for farm management). For its part, the SKK Farmer's Corporation, which manages the SKK RPC, needed both working capital and capital expenditure. In particular, the SKK Farmer's Corporation's needed financing for variable costs (e.g. buying fund and payroll of employees) and financing for fixed costs (e.g., improving the warehouse space, purchase of equipment). The delay in the delivery of the full set of machines increased the labor cost. And when the machines fully arrived but some parts were not fully functioning, the facility also needed resources for *palay* testing.

These challenges were not anticipated and planned for. One of the decisions that were made by the management of the SKK RPC, at that time, was to use the available funds for the various immediate needs. They used the working capital loan from PinoyME Foundation, for instance, for expenses like putting a wall, purchasing a digital weighing scale, and production loans to farmers. While these were needed at that time, it took the resources away from the other needed expenses like working capital for the purchase of *palay* from smallholders.

By mid-2016, the finances of the SKK RPC were bleeding. It defaulted on its second tranche of loan payment to PinoyME Foundation. Decisions were made to address the bleeding. First, changes in the leadership and management were instituted such that Fr. Dawe, who was chair, became its full-time manager and Fr. Mike assumed as chair of the Board. The PinoyME Foundation begin sitting in the Board of the SKK Farmer's Corporation providing business advice to the members. The PinoyME Foundation restructured the loan.

It is surmised that the organizational changes led to good results as evidenced by the improved financial position of the SKK Farmers Corporation. In a span of five months, the accounts receivables and the inventories increased, which show that *palay* procurement improved during the first half of the year (commensurate to the dry season). The improvements are also evident in terms of *palay* procurement, which improved from 19,250 bags of white rice by the end of 2016 to 30,996 bags by end of 2017, which translates to an increase of 11,746 bags or 38%. In terms of colored organic rice, procurement target for 2017 was 5,425 bags but achievement was 6,744 (124%). Rice marketing also improved. The selling of colored rice for 2017 almost doubled from their target (168%).

Also, the payment of arrears to PinoyME Foundation, PEF, and BCDI is up to date. The other improvements after the organizational change include the following: a) formation of farmers' production clusters, b) improvements in warehouse management, c) up-to-date financial reports, and d) conduct

of regular and special meetings of the Board of Trustees to assess performance, address issues, and plan for upcoming *palay* procurements among other concerns.

### **SKK RPC’s strategy: creating and sharing value-added with the farmers**

Fr. Dawe sees the SKK RPC as a viable social enterprise primarily of the farmers who belong to BECs. While the RPC needs to earn economically, Fr. Dawe is also convinced that the ultimate benefits of improved income and economic sustainability should go to smallholders. He also believes that consumers of the SKK RPC rice should benefit. They should have choices in terms of healthier rice and they should not be overpriced. Moreover, farming should also be environment-friendly. The natural resources should not be abused by farming inputs and practices (G. Pitapit, interview, August 25, 2017).

The main strategy of the SKK RPC, or its value proposition, is consistent with its vision of giving smallholder farmers “more economic and social leverage in the rice value chain” and with its principles of social justice, economic sustainability, and being a viable social enterprise: Buy high, sell low.

#### **A. White rice: Margins are tight**

Fr. Dawe recommended to the board in the last quarter of 2016 to increase their buying price by Php 0.50 per kg. compared to the average farm gate price. In the last cropping season (2017 dry season), the RPC’s purchase price for white rice was Php 16.00 while the traders bought between Php 15.00 to 15.20 per kg. (D. Merced and J. Salva, interview, June 5, 2017).

*Table 17. Average buying price of palay, Jan. 2018 (SKK RPC)*

	SKK RPC	Local buyers, traders (comprada)	National Food Authority
Dry, Class A	Php 20.00 per kg.	Php 18.00 per kg.	Php 17.30 per kg (if cooperative); Php17.00 (others)
Dry, Class B	Php 17.50 to 18.00 per kg.	Php 17.00 per kg.	Php 17.30 per kg
Wet, Class A	Php 16.50 per kg.	Php 15.50 per kg.	Php 15.90 per kg
Wet, Class B	Php 15.00 per kg.	Php 13.50 to 14.00 per kg.	Php 15.08 per kg

Source: Jaime Salazar, Procurement Officer and Classifier of SKK RPC

Fr. Dawe believes that this strategy of buying at a higher price from smallholders is consistent with their vision of giving leverage to farmers. Moreover, he believes that it is also the only way to fight for *palay* supply in a situation of too many buyers and traders that compete for the harvest. The board agreed with his observation and proposal.

The Php 0.50 per kg. higher buying price was effective in encouraging farmers to sell to the SKK RPC. During the dry season of 2015, the farmers only sold 7,865 cavans. In the dry season of 2017, the farmers sold 16,513 cavans. It can be seen that the actual sales of *palay* to the RPC, after two years when they increased the buying price, is 8,657 cavans or 52%. Even if a number of SKK farmers were not able to obtain loans from SEDP, they chose to sell to the SKK RPC their surplus yield (after their loan payment and obligatory selling to their buyer/financier) because of the Php 0.50 mark up. Some even felt bad that the RPC did not buy from them because it was already full of *palay* so at some point in the last season, it temporarily stopped buying (farmers from barangay Patag, FGD).

In terms of selling price, the RPC is also lower. This is consistent with the principles of the RPC on social justice, economic sustainability, and creation of a viable social enterprise (SKK Rice brochure).

The table below shows the comparison of prices in 2014. The estimates in this table are still the same, with the RPC selling their rice at around the same prices (Php 1,500 to 1,850 per kg, which gives a selling price per kg of Php 30.00 to 37.00 per kg).

Table 18. Comparison of rice selling price, no date

Rice quality (white)	SKK Farmers Corp: RPC	Camarines Sur average	Retail markets: Libmanan	Bureau of Agri. Stat. (BAS) retail price
Premium rice	Php 36.00 / kg	Php 36.72 / kg	Php 42.00 / kg	Php 42.00 / kg
Well-milled rice	Php 34.00 / kg	Php 34.67 / kg	Php 40.00 / kg	Php 38.00 / kg
Regular milled rice	Php 32.00 / kg	Php 36.16 / kg	Php 38.00 / kg	Php 36.00 / kg

Source: PinoyME Foundation, presentation entitled "RPC SIF Presentation"

The RPC estimates that the break-even price for white rice is Php 32.00 per kg. The costs per step or activity are as follows:

Table 19. Costs of white rice processing

Purchase price	Php 16.00 per kg
Drying	Php 2.00 per kg.
Milling	Php 1.50 per kg.
Packaging	Php 0.50 per kg.
Transporting within Bicol	Php 0.10 per kg.
Contribution to operating expenses including marketing, salaries, maintenance of equipment	Php 12.00 per kg.
Total	Php 32.00 per kg

Source: Interview with G. Pitapit, 25 August 2017

This break-even price of Php 32.00 per kg. of white rice is tight according to Fr. Dawe. It gives a unit margin of Php 4.00/kg. However, it assumes two conditions: drying recovery is 80% and milling recovery is 65%. In general, the RPC achieves this drying recovery but, in some cases, the milling recovery goes down to 63%.

Of the different products of the SKK RPC, white or milled rice has the highest volume in terms of actual bags and sales. The 2016 unaudited financial report shows that sales for while rice amounted to Php 10.1 million.

### ***B. Colored or organic rice: consistent with the vision and principles and earns better profit for the RPC***

The RPC buys colored (red and black) or rice made from organic agriculture practices from SKK farmers. The capacity and passion for sustainable agriculture came from the projects of CDL with NASSA (BECBIEP) and with BCDI and Manos Unidas. Colored rice is perceived to be healthier for consumption with the use of "greener" inputs and lesser polishing requirements.<sup>59</sup> Sustainable agriculture is also believed to be cheaper for farmers given its use of inputs from the environment (e.g., manure, night crawler worms).

<sup>59</sup> This means retaining more healthy substance in the grain



In Libmanan, the RPC is the only buyer of these products. In the last cropping season, its buying price was Php 18.00 per kg for red rice and Php 20.00 for black rice. The RPC also sells cheaper colored rice at Php 2,200 per cavan or Php 44.00 per kg to wholesalers in Manila and Php 60.00 to retailers and walk-in clients. In Manila, the retail selling price for colored and organic rice is around Php 70.00 to 80.00 per kg.

It is estimated that the break-even price for colored rice is Php 34.00 per kg. The costs per step or activity are as follows:

*Table 20. Costs of organic (colored) rice processing*

Purchase price	Php 18.00 per kg (red rice); Php 20.00 per kg (black)
Drying	Php 2.00 per kg.
Milling	Php 1.00 per kg.
Packaging	Php 0.50 per kg.
Transporting to Manila	Php 0.50 per kg.
Contribution to operating expenses including marketing, salaries, maintenance of equipment	Php 12.00 per kg.
Total	Php 34.00 per kg to Php 36.00 per kg

Source: Interview with G. Pitapit, 25 Aug. 2017

The SKK RPC's margins are higher for colored or organic rice. Its break-even price is higher because of the higher buying price and higher transport cost. However, its milling costs are lesser given its lower milling requirements; this saves on electricity costs, time, as well as on the wear and tear of the equipment. Given that the SKK RPC sells the colored rice in Manila at Php 44.00 per kg. to wholesalers (e.g., Sunnywood buys it at Php 2,200 per cavan), it is estimated that the RPC earns around Php 10.00 per kg.

While colored rice earns more for the SKK RPC, its volume is also significantly lower. At present, the RPC accommodates around 500 cavans of colored rice. Its volume for white rice, based on last season, is 16,513 bags or cavans. In Libmanan, except for the CDL and the BECs, there is no production and marketing of organic rice. Most of the farmers are not acquainted to organic agriculture. On the demand side, most of the buyers prefer well-milled rice. The 2016 unaudited financial report shows that organic rice sales amounted to Php 2.5 million.

### ***C. Ancillary businesses***

The SKK RPC also earns from the rental of the 60HP tractor and the mechanical harvester, which were also sourced from the DA Region V. It also earns from selling rice byproducts such as brewers rice and rice bran, which forms part of feeds for livestock. For 2016, sales of rice by-products was 3 times higher than rental fees. Their combined value is less than 10% of white rice sales for the same period.

## **Breaking the financing barriers**

The SKK Farmers Corporation addressed, and up to now, continues to hurdle, financing barriers. Key lessons and generalizations are discussed in this section.

### ***A. Creating a Farmers' Corporation to finance and manage the RPC***

In December 2015, the SKK OFA became the SKK Farmers Corporation. Instead of opting to become a cooperative, the former PTAB or Project Technical Assistance Board that included the farmers from SKK OFA, DA, and CDL, with advice from PinoyME Foundation, decided to create a farmers' corporation. In this way, the juridical entity will be able to obtain equity from members that it could use for operations. Moreover, the PTAB invited members from the private sector to become board members. With this, the PTAB decided that while the farmers corner the biggest share of equity being the recipient of the RPC (60%), other stakeholders will be invited. CDL obtained 20% of shares (2 board seats), a seed grower company obtained 10% of shares (1 seat), and an individual representing the private sector also gained 10% of shares (1 seat). With the expansion of the board to include not just the farmers, equity increased and policymaking by the board is being handled professionally.

The authorized stock of the SKK Farmers Corporation is Php 10 million. Since the rules of the Philippine Securities and Exchange Commission (SEC) state that 25% of 25% of the authorized stock should be paid, the board members of SKK Farmers Corporation raised Php 625,000.00. From the five farmer's groups, the RPC expanded to 18 farmer's organizations covering 18 barangays. Each of these farmer's groups provided Php 62,500.00. CDL paid its corresponding 20% of shares, the seed grower company paid 10%, and the private sector paid 10% of the needed capital stock.

In setting up a corporation, the SKK Farmers Corporation was able to source equity financing from shareholders. This, among others, provided resources during their startup phase when it had no records and collateral that could be used by commercial banks.

Although this is an important innovation, the farmers' low valuation of their future earning dampens the effect of being co-owners of the RPC. As Bickel and his colleagues (2016, p. 1) affirmed in their experiment, a lack of resources shifts one's "attention toward short-term needs, even at the expense of longer-term goals."

### **B. *The provision of production loans***

Production loans were provided by the SKK RPC for smallholders who were part of the SKK Farmers Corporation. Based on the assessment of the management, the SKK RPC needed to lend production loan to farmers since this will tie-in the marketing of harvest. The farmers were to deliver the *palay* and eventually, pay their dues. Part of the motivation for SKK RPC's production lending was also the felt need to defend the reputation of farmers ("*para mapataas ang basang basa na papel nila na hindi nagbabayad ng utang*," Fr. Mike Dela Rosa, interview, January 17, 2018). Fr. Mike and Fr. Dawe also felt that this is consistent with the SKK RPC's objective of helping the poor in the BEC not just in terms of income increase but improvement in their dignity.

However, the repayment rate was dismal. Except in Fr. Mike's parish in Pamplona where there was 100% repayment rate of the borrowers. As of January 2018, the outstanding unpaid production loans amount to around Php 2.4 million (M. Dela Rosa, interview, January 17, 2018; G. Pitapit, interview, January 18, 2018). Some of the farmers who were not able to pay noted that weather conditions were not good at that time and as such, they still needed to loan from trader-lenders to augment the loans from the SKK RPC. During harvest, they needed to deliver their harvested *palay* to the trader-lenders or the *compradas*. With the *compradas*, the farmers could borrow several times before the harvest. The SKK RPC only provided one-time loan.

Having had years of experience working with finance providers in agriculture value chains, Dan of PinoyME Foundation shared three (hard earned) lessons to the board of the SKK Farmer's Corporation. The lessons are hard earned because many finance providers learned these through failures as much

as successes. Out of these experiences, Dan explains, there is now an emerging consensus among value chain financing players about key lessons (Danilo Songco, interview, August 31, 2017).<sup>60</sup>

First, agriculture lending is not easy. It entails a level of understanding of the industry and the lenders as well as an assessment of risks and returns. Even long-time lenders experiment on their products before reaching a level of confidence on their new offerings. The decision of the SKK RPC management to lend inputs to farmers was ill-conceived because it did not consider the risks, the terms or tenor of the loan, the payment mechanisms, and the policies for default among others. Second, different players in agricultural value chains have different financing needs.<sup>61</sup> Dan notes that it is crucial to identify and understand the requirements because these financing needs could be sourced from different finance providers. In the case of the SKK RPC, the financing requirements were on the production and pre-harvest of farmers whereas the SKK Farmer's Corporation that manages the RPC needs both working capital and capital expenditure. Substituting the resources for these requirements (i.e., using the working capital loan from PinoyME Foundation for putting a wall, a capital expenditure, and for lending inputs to farmers) is not wise because the cash flow of the SKK RPC suffers and it is not able to procure *palay* from farmers. This leads to further problems because the SKK RPC will not earn and the farmers will sell to other buyers or traders. And third, the various financing requirements are met by providers based not only on their assessment of risk but on their capacity and reach. For instance, commercial banks find it difficult to lend production loans to smallholders while microfinance institutions find it difficult to provide capital expenditure funds. It is important to be able to match the requirements with the available credit suppliers. With these lessons, Dan advised for the SKK Farmers Corporation to reach out to the Simbag sa Pag-asenso Inc. (SEDP) for the production requirements of the farmers. The management of the SKK RPC heeded this advice.

It could also be argued that production lending could have been effective during the early phase when the SKK OFA was small with 5 organizations or when they could manage the size of operations and the values of stakeholders were aligned. Production lending might have been feasible. However, with community organizing and social preparation, the number of interested farmers increased leading to a ballooning of the loans. At the peak of lending in 2015, the capacity of the SKK RPC was not enough to address loan monitoring, repayment, and other concerns.

### ***C. SKK RPC and SEDP need to compete with the interlinked financing offered by compradas and improve upon its informal relationship-based model***

Given how farmers' traditional source of financing is the trader-lender, a viable alternative must be able to give no less than what is being offered. To be able to provide a compelling alternative source of financing, the basic elements of interlinked financing could be used as a springboard to encourage the

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<sup>60</sup> The PinoyME Foundation is a co-convenor of the Inclusive Agriculture Value Chain Consortium, a coalition of commercial banks, microfinance institutions, government agencies, businesses, non-government organizations, and social enterprises that focuses on agriculture value chain financing. The IAVCC held a conference in November 2016 and there was unity in the analysis of financing constraints: lending to smallholder farmers is high risk for financing institutions but the risk could be addressed by efforts at enabling the farmers and other value chain players so they could sell more directly to buyers.

<sup>61</sup> For smallholder farmers, funds are needed for a) production (e.g. purchase of inputs, hiring of laborers for land preparation), b) pre-harvest (e.g. spraying, hiring of workers for farm management), c) post-harvest (e.g. drying, milling), and d) consolidation (e.g. trucking, marketing). Aside from farmers, other players in agricultural value chains are also need financing for their requirements. For instance, intermediaries like farmer's organizations, non-government organizations as well as small and medium-scale buyers need funds for 1) working capital, and 2) capital expenditure. Moreover, most value chain players need common service facilities like farm machines and equipment and public goods like roads and ports. If these are not available, stakeholders (usually the commercial buyers) raise the resources to be able to address the gaps.

farmers to move to more formal source of production loans. Effectively involving the smallholders into formal sources of loans would then allow them to access other type of financing products or even tap other formal financing institutions once their “bankability” is established. This is one aspect that transactions with trader-lenders doesn’t facilitate. The SKK RPC tried to replicate this model during its early period but it was not the best organization to provide the service. However, their early experiment also illustrated an important aspect of the *comprada’s* model: the high repayment rate in Fr. Mike’s parish while most of the farmers elsewhere defaulted shows how central is the role of personal relationship in informal lending. Thus, it is not really enough to replicate the business model of interlinked finance, but the contracts of both lending and marketing should also be moved towards greater formalization.

Notwithstanding this need for formal contracts, it is still important to maintain a degree of “incompleteness” that would allow the parties to share in the risks involved. This then highlights the role of crop insurance on one hand, and diversification in the smallholder’s livelihoods and the financier’s client base, on the other.

#### ***D. Mechanisms that can improve the interlinked contracts***

If the SKK Farmers Corporation re-engages in interlinked contracts, other interventions could improve the chances of repayment:

1. The offer of a higher buying price compared to the other buyers in Libmanan;
2. The set up the SKK RPC where the majority shares are owned by the farmers, a potential source of extra earnings; and
3. The values formation offered by the CDL, which could serve as informal mechanism for instilling the need to honor agreements,

The financial incentives, aside from the benefits of receiving values formation, capacity building, and occasional small farm implements, can enforce the contracts including loan repayment. The incentive on higher buying price was not present when the SKK RPC provided production loans to farmers. This, along with the presence of the CDL and the priests, could serve as contract enforcement mechanisms if interlinked financing is again pursued.

#### ***E. Partnering to fill-in the financing requirements and other gaps***

The SKK RPC’s financing requirements were met by partners who provided resources – funds, time, talents – during critical moments. The partners have strengths and mandates that were used to help the SKK RPC, which in turn, improved the inclusiveness of the rice value chain in Libmanan.

One, the provision of the RPC 2 to the farmers is within the mandate of the government. However, opportunities for securing machines and equipment are information that are not available to the broad public. Because of experiences in social action and previous experiences with rice milling, Fr. Dawe Pitapit had the local and national government connections which allowed him to know about the opportunity for securing an RPC. The National Organic Agriculture Board (NOAB) was an important venue to know key people from the Department of Agriculture.

Two, it is within the business model of PinoyME Foundation, Peace and Equity Foundation, and the Bicol Consortium for Development Initiatives to provide loans and grants to social enterprises like the SKK RPC. In the Philippines, there are only a few social investment bankers like PinoyME Foundation or grant providers like the PEF and BCDI whose mandates cover lending and assisting groups with working capital loans that are more than Php 10 million. Other organizations that lend/assist start up social enterprises have lower offers for capitalization.

Three, the partnership with the SEDP for production lending was also critical. Like the BCDI and CDL, organizations which intend to support the programs of the Roman Catholic Church in the Bicol region, SEDP was also established to provide financial and non-financial services like training and formation to the poor in the region.

It is within the mandate of SEDP, BCDI, and CDL to help SKK RPC.

However, the capability of the partner in delivering their role is also important. Certain roles, such as financing production loans, could either be too big or with too much concentrated risk for one financing partner to fulfill. As such, there is still room for other possible partners to engage in the value chain.

## Social investments: The cost of setting up a rice processing center

There are costs to assisting the SKK Farmers Corporation. Table 21 summarizes the grants that were provided by different stakeholders to the RPC:

Table 21. Grants received (directly, indirectly) by the SKK RPC

Source	Amount
Department of Agriculture: total amount of the RPC	Php 16,000,000.00
Pondo ng Pinoy	Php 300,000.00
Peace and Equity Foundation	Php 1,000,000.00
Rotary Club (for PinoyME Foundation to be used for business development services to SKK RPC) <sup>62</sup>	Php 4,000,000.00
Total	Php 21,300,000.00

Social investments or investments to strengthen people’s competencies were also provided by different stakeholders.

1. When the SKK RPC was just starting, many of the staff were not paid when they were asked to participate in trainings and to oversee the setting up of the RPC and the testing of the mill. They waited for the full delivery and operations of the RPC and had opportunity losses. But because of lack of funds, 8 staff members were not remunerated by the SKK RPC. Sherell Baricante, the former manager, even utilized her own money to provide honoraria and allowance to the staff (J. Salazar, interview, January 17, 2018).

<sup>62</sup> Even if only the Php 1 M is specifically for BDS, Php 3 M was still given (with conditions) by Rotary for the development of the SKK Farmers Corporation (i.e. payment to PinoyME Foundation for coaching SKK Farmers Corporation).

2. The management fee, both for Fr. Dawe and for PinoyME, is not a competitive rate given the services they are doing.
3. Farmer leaders invest in the SKK Farmers Corporation by participating in activities aimed at improving its operations. These include participation in assessment and planning meetings and discussing with the 18 peoples' organizations, afterwards, the agreements during meetings. They also work to coordinate the farmers' understanding of the SKK RPC's policies and programs and to get their buy in. In the 2017 assessment and strategic planning, the SKK Farmer's Corporation agreed on promoting certified seeds to increase productivity. Key varieties of certified seeds were decided on. The farmer leaders need to secure buy in from the 18 farmers' organizations, from individual farmers, and they need to do key organizing efforts using their own expenses.

## Conclusions and recommendations

This SKK RPC provides a clear model of working with smallholders in the rice industry. It underscores the need to provide an alternative buyer for the rice produce of farmers in a situation of many disorganized buyers contributing to high marketing mark-ups.

The SKK RPC experience is rich with lessons. The challenge is to make sure that the lessons are learned and form part of future deliberations. The comments will be limited to the business model, partnerships, and financing of the SKK RPC.

### On the business model:

Starting October 2016 until present, the SKK RPC has been improving business-wise. Key decisions like increasing the buying price proves to be a wise decision. And it is also consistent with their business model. Moreover, the decision to pursue organic or colored rice, an advocacy and passion since the 1990s, also proves to be a good decision.

The value proposition of the RPC, of buying high and selling low, is consistent with the vision and values of the BEC and sustainable agriculture. It is commendable that they have tried to be true to their "calling" and putting it in their business model.

Rob van Tulder (2018) notes the importance of being inclusive and sustainable at the level of a firm's business model. These ambitions, he emphasizes, need to be consistent with the core business of companies in order to share value like increased income along with improved wealth and improved well-being of the earth. If the business is not aligned in this manner, the motivations for being inclusive and sustainable might not be enough to start and maintain any intervention.

In line with this, there is a need to align the 18 smallholder farmer organizations, particularly the 13 new groups, on the vision, mission, and goals of the SKK RPC on empowering farmers and improving their quality of life. There is a need to continuously share the ambitions on organic agriculture as well as the dream to bring back the *tambobong* or the rice granary. Moreover, it is important to share the beginnings and values of community life, as expressed by being part of basic ecclesial communities.

The farmers could also be encouraged to be inclusive and sustainable. The insights of Fr. Dawe and the staff of the RPC that the farmers are still "passive" suppliers of *palay* and not "owning" the RPC

could be continuously addressed by encouraging them, through co-owning and co-creating processes, to be more active in the work of the SKK RPC.

Moreover, even the decision to lend production loans to individual farmers was part of their business model of empowering farmers by pulling them away from financier/buyers. However, two issues worked against this effort. First, know-how or expertise on lending is not enough. Second, lending to farmers, it could be argued, might have been good during SKK OFA's early phase when they were small (5 organizations) or when they could manage the size of operations and the values of stakeholders were aligned. This did not work when the number of organizations increased.

In line with this, there is a need for the SKK RPC board and management to recognize their "season" and their tipping points. At the time when they were providing production loans, their operation was high but their capacity to manage the operation was not commensurate. Conversely, the capacity of SKK RPC at present (in terms of human resources and milling) is high but procurement and marketing activities are relatively low. Fr. Mike and Fr. Dawe are presently looking for ways to improve their operations and marketing because letting go of the staff is not an option. The balance between capacity and operation should be studied and acted proactively. This is true especially since the SKK RPC intends to scale up by acquiring more efficient facilities.

A last point on the buy high sell low proposition: While it is consistent with their business model, values, and mission, the board and management of the SKK RPC could **nuance** this by selling low only on white rice (staple food) but not on colored rice. The selling price for red and black rice is high and buyers of this commodity could afford the market-determined price. It makes sense to maximize the buyers' willingness to pay for organic rice so that the RPC will have more buying funds that could increase their procurement from farmers.

#### On partnerships:

More partners in the value chain are needed. Most of the interventions of stakeholders are on the SKK RPC and on the farmers. Other stakeholders, which could provide critical inputs, are not present. In this regard, the partnership portfolio could be diversified to include partnerships for gaps in the chain including marketing to different buyers.

The commitment of the buyers in the value chain is also important. The difficulty met by the SKK RPC to unload their inventory to the *Bigasan sa Parokya* could have been preempted by having their buy-in to the project and also being stakeholders in the value chain.

Borrowing from the Farmer Entrepreneurship Program, the Jollibee Group Foundation sought various companies and encouraged them to be part of the FEP and buy from farmers. In their value chain, the interventions are spread all over the chain with stakeholders providing inputs to various actors.

#### On financing:

The efforts of the SKK RPC management to be on time with loan payment is commendable.

It is important for the SKK RPC to have a stable source of financing. It will allow them to reach out to more farmers and give them the benefit of higher buying price. It will maximize their facility and existing human resources. Efforts could be made to scout for other financing facilities such as commercial banks. They could also choose to open up shares in the corporation by infusing new equities.

### Other recommendations:

There is also a need to strengthen the farmers and their organizations. Organizing them into production or supply clusters with concrete deliverables will improve the procurement of the RPC and its marketing to buyers. Based on conversations with farmers, it is also important for them to diversify their sources of on-farm, off-farm, and non-farm income to be able to cope up with shocks like typhoon that often hit their province. The SKK Farmers Corporation could tap partners that could assist the farmers towards diversification and tapping of insurance schemes like crop and life insurance.

In terms of managing the RPC, it appears that even within a short span of time (1 year), the SKK RPC has already reached a tipping point particularly on colored rice. It will be good to encourage farmers to upscale production on colored rice since market signals a bigger demand for 2018.



## Synthesizing the lessons: Breaking the financing barriers in inclusive value chains

The Farmer Entrepreneurship Program is involved in agriculture value chains where financing mechanisms were accessed by the smallholders and farmer's groups, which allowed the smallholders to sell their farm products to lead firms. The Saradit na Kristiyanong Komunidad Rice Processing Center is re-considering this model along with their other iterations to improve the social enterprise. Like most agriculture value chains in the Philippines, the models were confronted with wicked problems including adverse weather conditions, limited or lack of access to crop insurance, limited access to support services including the much-needed agriculture extension services, roads, and telecommunications, and imperfect information resulting in high transaction costs. These are just a few of the institutional voids that were faced by the stakeholders in those value chains.

Despite these problems, formal agriculture financing flowed. Key details of the production loans are as follows:

Table 22. Interest rates extended to farmers in the models

Group	Interest rate	Interest rate per month
Kalasag farmers	15% per season (4 months)	3.75%
FEP farmers assisted by Lamac MPC	2% per month	2%
SKK RPC farmer members	3% per month	3%

The models also addressed other financing requirements in the value chains particularly the need for working capital used primarily for buying the products of farmers. The Kalasag Farmers Producers Cooperative, Lamac MPC, and the SKK Farmers Corporation needed financing during peak seasons. The loans were provided by partners and these amount to around Php 5 to 6 million per financial service provider. These are mostly term loans with interest rate ranging from 6% PA (ACPC), 8% PA with a rebate of 2% if payment is on-time (PEF and LANDBANK), 12% PA (PinoyME Foundation), and 24% PA (ASKI). It can be seen that PEF's interest rate is competitive and bank-like in character while ASKI's interest rate is expected given its microfinance nature.

The other requirements in the chains, particularly the other financing needs of smallholders, are addressed too, one way or another. The need for other loans aside from production loan (e.g. emergency loan) is provided by the Kalasag Farmer Producers Cooperative and Lamac MPC. However, these are still not enough. Many smallholders noted that they source various types of loans from different formal and informal sources.

What could have made the models work? It is evident that the institutional voids were addressed through the following:

- 1. Partnerships provided resources and the enabling environment to make value chains effective, inclusive and sustainable.** Cross-sector partnerships opened opportunities to tap partners that are "fit" to the models in terms of mandates, objectives, and size. The partners determined the financing and non-financing requirements of the value chains particularly the needs of smallholders so these could participate in supplying corporate or major buyers. The

financing and non-financing requirements also meant shouldering social investment costs including farmers' organizing.

The social investment cost is high. This includes costs for program development and capacity development of farmer leaders and other stakeholders (e.g. key staff from the local government offices in the case of the FEP). These costs are non-financial and do not have separate business models or stand-alone costs and returns. But these are necessary components of inclusive value chains.

The partnerships shouldered these costs. The formal and informal relationships also assuaged the fears and doubts about risks and enabled its sharing within the value chains. The presence of partners and their interactions broke financing barriers. In this way, cross-sector partnerships addressed institutional voids when partners, using their mandates and resources, acted on the problems at the same time.

**2. *The interlinked contracts between the individual farmers and the cooperatives in the FEP model addressed the lack of farmers' records and need for collateral.*** In this way, the interlinked contracts were means to:

- a. Screen the capacity of borrowers to pay. The mechanism sorted out the farmers who have the interest to engage in long-term market relationships.
- b. Enforce loan payment especially in the context of information asymmetry. Raul Fabella (1992) has shown that within an interlinked arrangement, loan repayment in-kind (or the delivery of harvest) dominated a cash-for-cash scheme in cases where output price is uncertain and farmers are risk averse.

The interlinked contracts, particularly from the FEP model, showed elements of being collateral substitutes. These bundled contracts were attractive to smallholders because it is tied with the provision of "rewards" including other support services such as higher buying price, capacity building, agriculture extension services, and access to farm machines and equipment (in some cases).

**3. *The interlinked contracts in the FEP model are enforced by formal and informal agreements.*** These include:

- a) Contracts between the corporate/major buyers and farmers' groups; and corollary to this, the presence of bridges like corporate foundations that link farmers and buyers;
- b) Formal agreements developed and agreed upon within farmer clusters and farmers' groups; and
- c) Informal agreements inside the farmer's groups and communities including customs and norms concerning violations of (formal and informal) contracts. Group pressure or reputation-based mechanisms are enforced by the expected rewards of compliance and the threat of sanctions for non-compliance to agreements (such as non-payment of production loans).

These formal and informal "contracts" contributed to lessening the costs and reducing the risks of lending to smallholders. However, unlike trader-lenders in informal credit markets who have

to monitor every borrower and provide for their various needs to keep them loyal, interlockers in the FEP relied on formal and informal mechanisms within the farmers' clusters/organizations and among partners in the value chains.

There are indications that the combination of formal and informal agreements leads to self-enforcing contracts. These are agreements that are enforced by the parties and thus, not needing third-party enforcement. Self-enforcing contracts institutionalize inclusive and sustainable arrangements in value chains.

- 4. Many of the partners, including financial service providers, are embedded in localities, in value chains.** The local implementing partners of the FEP (e.g., LGU of San Jose City and Lamac MPC), the priests, CDL, and the SEDP who are based in Bicol are all embedded in local areas and are conversant with local dynamics. They could address context-specific and culturally-sensitive issues. This tackles the concern on the dependency of value chains to local contexts (see works including that of Jimena et al. 2016).
- 5. The stakeholders invested in the programs and were able to provide resources because these were within their mandates or part of their business models.** The starting point of inclusion and sustainability was the stakeholders' mandate and business model. In the case of Jollibee Foods Corporation and the Jollibee Group Foundation, the FEP is based on creating shared value. In the case of the priests, CDL, and the farmers of Libmanan, the SKK RPC is a means to bring back the glory days Libmanan as a rice granary where no farmer is hungry or lacking in dignity. These stakeholders looked for partners who also have the mandate to assist smallholders and whose business model also include inclusiveness and sustainability (e.g., CRS, NLDC, NATCCO, PEF, PinoyME Foundation, SEDP, and Grow Asia).
- 6. The value chains have leaders who were important in unlocking financing and addressing tipping points.** These include former San Jose City Mayor Marivic Belena, J.P. Padua of ASKI, Lamac MPC's General Manager Elena Limocon, Fr. Dawe Pitapit, Fr. Mike Dela Rosa, and the farmer leaders whose decisions included staying in the partnership despite faults and in the case of Ellen Limocon, even in spite of some cases of loan defaults. These leaders were embedded and diverse and they were worked with other leaders including Gisela Tiongson (JGF), Joan Uy (CRS and now, JGF Consultant), Dan Songco (PinoyME Foundation), and Roberto Calingo (PEF). Because they work at the national level, the latter set of leaders is critical in steering the models at the policy and programmatic level.

## Recommendations

Despite numerous programs and policies mandating the delivery of agriculture financing programs and services, smallholders find it difficult to access agriculture loans. Different efforts were exerted to solve this wicked problem (i.e. government provided directed credit at repressed interest rates, government was barred from giving directed credit) but financing barely flowed.

Based on a literature scanning on cross-sector partnerships and informal trader-lender mechanisms and the conduct of action research on two models – JGF FEP and SKK RPC – key findings have emerged. The lessons yield recommendations for three types of stakeholders: a) commercial banks, b) government agencies, and c) other stakeholders.

### A. For commercial banks:

Commercial banks find it difficult to lend to smallholders including agrarian reform beneficiaries. The cost of lending is high and the risks are not known. Danilo Songco of PinoyME Foundation analyzed different types of farmers. Three tiers are used for nuanced suggestions.

The first tier of farmers is composed of groups that have already grown. Groups in this tier are bankable and their requirements could already be funded by commercial banks through direct lending or through farmers' groups. In the absence of actual numbers, it could be surmised that this tier has the smallest number of farmers.

The second tier is composed of farmers who belong to groups like those studied in this paper (e.g. Kalasag members, FEP farmers serviced by Lamac MPC, and the farmers who sell to the SKK RPC). As part of the groups that joined the FEP and the SKK RPC value chains, these smallholders have hurdled initial financing requirements (e.g. production and working capital) and have shown that they could deliver the needed crops and commodities based on the specified quality and volume. Those in this tier are in need of growth or expansion financing. The Kalasag farmers need a bigger cold storage and the SKK Farmer's Corporation needs a bigger rice processing center. Commercial banks can fund the growth requirements of farmer's groups that are in this tier either through direct lending to the farmers' groups or through intermediaries (e.g. rural banks, microfinance institutions), or through the buyers / off-takers.

The third tier is composed of farmers that are unbanked. Most of the partner farmers of FEP and the farmers who are members of the SKK Farmer's Corporation were part of this tier until financial inclusion was made possible through partnerships in value chains. The lessons on interlinked financing, the use of formal and informal mechanisms to enforce agreements, and the need to partner with other stakeholders to address systemic or wicked problems could be adopted by lenders and other stakeholders in particular contexts (e.g. location, crops).

Commercial banks could also choose to lend to smallholders who are in the third tier if the farmers are involved in value chains like the FEP and SKK RPC. Lending could be through financial service providers like rural banks and microfinance institutions or through the major buyers. In Mindanao, for instance, there are models where the Land Bank of the Philippines partnered with the smallholders, the farmers' groups, and the buyer/company in order for the farmers to access production loans.

In lending to the first, second, or third tiers, commercial banks could choose to undertake pilot initiatives. The models could be iterated, further improved, and documented. The following suggestions could be incorporated in piloting agri-financing models:

One, the models, particularly the FEP, show that interlinked contracts served were treated as collateral substitutes of financial service providers. Commercial banks can engage in value chain financing where they lend on the basis of commitments and relationships among groups.

Two, creating shared value means engaging in initiatives that have business and social returns. This means going back to the business model of banks which is to help lenders manage their risks. Commercial banks could gear their corporate social responsibility to efforts that are related to the banks' core business. The CSR of commercial banks could focus on improving the capacity of smallholders and other value chain stakeholders to engage in value chain financing. The CSR program could also shoulder the social investment cost of partnering with smallholders. The banks' partners (e.g. major buyers, civil society, and government offices) should also share in this social investment cost, co-manage the risks, and address the problems.

Three, commercial banks can also reconsider their requirements in terms of acceptable collateral and collateral substitutes. The financial service providers in the models and the informal creditors use interlinked contracts as collateral substitutes. Key loan programs of LANDBANK (e.g., ISDA, MILK, STEP-UP, and FSCP) treat an AGFP Guarantee as a collateral substitute.

Four, the interlinked contracts in inclusive value chains could be expanded to include different partners. The experiences of the Dutch program, 2SCALE, in Benin, as well as the Mercy Corps and partners' project in Indonesia, which were part of this paper's literature review, show that interlinked credit markets could include not just corporate buyers, smallholders, government, civil society, and banks. It could also involve input providers that will ensure the availability of and access to the needed seeds, fertilizers, pesticides, among others. This addresses one of the risks in lending to smallholders. These kinds of expanded contracts among partners in value chains could widen the scope and scale of bank financing.

Five, commercial banks can work with one another to be able to share in cost of developing the product or service. Given the potentials of partnerships in enhancing the inclusion and sustainability of value chains, financial service providers could partner together in developing innovative products and services, pilot these in different areas for model building, and document the results. In this way, the costs and risks of product development are shared by partners. When rolled out, the implementation could be designed so that commercial banks are lending to different models, groups, or areas. The Land Bank of the Philippines, which has a longer and more varied experience in agriculture and agrarian lending, is encouraged to join the product development effort, share its lessons, and contribute to the cost. LANDBANK can benefit from the development of new, more efficient, and more effective models.

Six, in doing pilot projects or model building, it is important for the initiatives to be documented for lesson gleaning and lesson drawing.

#### *B. For government:*

National and local government units are in a position to enable inclusive and sustainable value chains. Cross-sector partnerships, which include the government, are critical in addressing systemic agricultural problems. This analysis yields the following suggestions:

One, the role of government in providing public goods such as rural infrastructure, agriculture technology and extension services, and access to information (information on borrowers, crops, commodities) are important in agriculture value chains. The provision of complementary, non-financial, support services, as illustrated in the cases, will improve the smallholders' bankability. Additional support services will reduce the costs and risks of transacting with farmers. For instance, the provision of roads and telecommunication facilities will improve the marketability of farmers' products. In turn, marketing contracts can give smallholders' higher chances of obtaining production loans.

Two, the unmet demand for viable and acceptable crop insurance particularly for onions and other high-value crops is a serious concern. In the models that were studied, the smallholders have varying degrees of resilience. They observe the agreements on delivery of products and repayment of loans but a major calamity could easily wipe out their gains. Addressing this lack of crop insurance and other risk mitigation measures is an important role for the government.

Three, efforts at gathering information about borrowers, crops commodities, and value chains and in making the information available will improve their screening of borrowers and assessment of risks. It

is important for government to expedite the data gathering and to provide support to key offices like the Credit Information Corporation and the Philippine Statistics Authority.

Four, the fragmentation of government mandates and functions needs to be addressed. Former Department of Agriculture Secretary Senen Bacani observes that no government official below the Philippine President is in charge over-all of agriculture credit. This problem is a concern of many officials but no one is directly responsible. One practical recommendation is for government agencies to converge in inclusive value chains or inclusive agri-enterprises. The programs of agencies like the Department of Agriculture, Department of Agrarian Reform, Department of Trade and Industry, Department of Labor and Employment, Department of Public Works and Highways and local governments could be synched to improve the enterprises' chances of success. This effort can also increase the possibilities of positive spill over to other areas.

And fifth, plans to resurrect direct credit schemes should be reconsidered given the numerous (and expensive) lessons from past programs. Also, the penchant of government to ban informal lenders should be reconsidered. Informal finance providers fill in the credit gap or the financing requirements that are not provided by formal service providers.

*C. For other stakeholders in value chains:*

Off-takers or buyers must consider the whole value chain in entering into agreements with smallholders. This requires having a long-term perspective and being prepared to partner with other stakeholders. Intervening only in the marketing of the products might not work given the deep-rootedness of problems such as the smallholders' lack of access to financing. Contributing to social investment costs is also critical since this will capacitate the partners particularly the smallholders in meeting the specific demands of buyers.

Diversification of buyers, products, and partners is critical and should be encouraged. The two models are designed such that the smallholders do not have to bring their 100% produce to the buyers (farmer's cooperative or corporation). This allows the farmers to honor agreements with other buyers, to match their products to responsive buyers, and to benefit from price spikes from spot or guerilla buyers. The models also encourage diversified crops or commodities to address differences in weather patterns and variations in crop gestation and cash flow. Likewise, the models have different partnership networks which correspond to local contexts.

Financial service providers must consider the different requirements of smallholders and their households in developing products and services. Partners in value chains, including financial service providers, could bundle products and services to lessen transaction costs. The FEP farmers from Dalaguete would benefit from having a cooperative store in their area so they would not have to go to downtown to purchase goods. The efforts of Lamac MPC and JGF to provide loans in kind and in cash, set up a consolidation area, and pick up the vegetables from Dalaguete significantly lessened the production and marketing costs of smallholders but they still need to buy other household requirements.

Likewise, financial service providers must consider the cash flow of the whole household in lending to smallholders. Providing farmers access to production loans without considering the cash flow of their whole household could result in loan defaults when shocks or emergencies hit their families.

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## Annex A: Research Framework - Table of key questions and possible sources of information

<b>Indicators</b>	<b>Possible sources of information</b>
<p>On program/model results:</p> <ul style="list-style-type: none"> <li>• What are the results so far? Look at this based on the different stakeholders' perspectives (e.g. farmers, companies, corporate foundations, financial service providers)               <ul style="list-style-type: none"> <li>• Quantify, qualify</li> <li>• Check for "equity" or sharing of gains</li> </ul> </li> <li>• What in their perspective contributed to the achievement of the results? What factors / conditions?</li> </ul> <p>On the start of the program/model:</p> <ul style="list-style-type: none"> <li>• Why was the program / project initiated? Who initiated it? How?</li> <li>• Who are the key players? Who played the coordinating role?</li> <li>• What are the contributions / roles of various stakeholders at the start-up phase? Did the roles evolve? How?</li> </ul>	<ul style="list-style-type: none"> <li>• Desk research</li> <li>• Interviews with heads and members of stakeholder groups</li> <li>• Focus group discussions</li>   <li>• Desk research</li> <li>• Interviews with relevant stakeholders</li> </ul>
<p>Understanding the model's value chain:</p> <ul style="list-style-type: none"> <li>• Who are the value chain players? What are their roles and functions?</li> <li>• What is the value created in every step of the chain?</li> <li>• How are activities organized at the upstream and downstream of the chains?</li> <li>• Is there upgrading in the chain?</li> <li>• Who plays the lead firm role?</li> <li>• What are the governance mechanisms in the chain? How are decisions made?</li> <li>• Formal and informal contract mechanisms (e.g. sanctions, enforcement)</li> </ul>	<ul style="list-style-type: none"> <li>• Desk research</li> <li>• Interviews</li> <li>• Focus group discussions</li> </ul>
<p>Inclusiveness and sustainability of value chains</p> <ul style="list-style-type: none"> <li>• What constitutes an inclusive value chain?</li> <li>• What is the degree of involvement of smallholder farmers in production, marketing, pricing decisions?</li> <li>• Were there means/efforts exerted to develop capacity of smallholder farmers to voice out their concerns, ideas?</li> </ul>	<ul style="list-style-type: none"> <li>• Interviews</li> </ul>
<p>Financing the smallholders and the other requirements of the value chain</p> <ul style="list-style-type: none"> <li>• What are the financing requirements?</li> <li>• Who shoulders which costs? Why? How much is the actual cost of participating in the chain? What is the cost breakdown?</li> <li>• What were the risks? How were these managed?</li> <li>• What are the mechanisms that were used for financing the models?</li> </ul>	<ul style="list-style-type: none"> <li>• Desk research</li> <li>• Interviews with heads and finance of various stakeholders</li> </ul>

Policy implications

- Are there policies that enable / encourage stakeholders to engage in programs or projects with smallholders?
- Are there policies that discourage?
- Policy and program suggestions of value chain actors?

- Interviews with relevant stakeholders