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The role of agrarian reform beneficiaries organizations (ARBOs) in agriculture value chain

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DISCUSSION PAPER SERIES NO. 2020-24

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Marife M. Ballesteros and Jenica A. Ancheta



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The Role of Agrarian Reform Beneficiaries Organizations (ARBOs) in Agriculture Value Chain

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Abstract

The objective of this paper is to evaluate how Agrarian Reform Beneficiary Organizations (or ARBOs) participate in the value chain; how they engage actors along the value chain and what challenges do they face in the process. Farmer organizations, such as ARBOs, are important conduits for smallholders to participate specifically in higher value chain. This strategy enables smallholders to pool resources, jointly carry out profitable activities, reduce risks and transaction costs and operate on scale economies. However, many farmer organizations in the country have low level of organizational maturity and are mainly formed to access funding. Thus, smallholder participation in higher value chain is limited; the gains from value chain initiatives would impact only on a modest number of smallholders' population and may not be sustainable in the long run. The paper suggests that farmer organizations and their participation in higher value chain can be improved by: one, enabling farmer members to commit to the organization through equity participation; two, enabling farmer organizations to establish enterprises that will generate income for members; and three, capacitating farmer organizations on building alliances/networking.

Keywords: farmer organizations, value chain, ARBOs, agrarian reform, agriculture

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The role of agrarian reform beneficiaries organizations (ARBOs) in agriculture value chain

*Marife M. Ballesteros and Jenica A. Ancheta**

1. Introduction

Studies have shown that smallholders are able to increase participation in value chain through cooperatives and farmer organizations (Markelova, et.al, 2009). The strategy of pooling resources of smallholders and jointly carrying out profitable activities reduces risks and transaction costs and enables farmers to operate on scale economies. Thus, the creation and strengthening of farmer organizations have become an important strategy for agriculture growth and rural economic development.

In particular, the Department of Agrarian Reform (DAR) through its Agrarian Reform Community Connectivity Economic and Support Services (ARCCESS) program introduced the creation of farmers' organizations known as ARBOs to serve as channels for the provision of support services to beneficiaries of the Comprehensive Agrarian Reform Program (CARP). ARBOs were organized nationwide in identified agrarian reform communities or clusters where there is concentration of ARBs or lands distributed through the land reform program.¹

The size of ARBOs varies with membership ranging from less than a hundred farmers to several thousands. ARBOs are required to register as a cooperative or farmers' association (including irrigators association, women's association, etc) with either the Cooperative Development Authority (CDA) or the Securities and Exchange Commission (SEC) or the Department of Labor and Employment Bureau of Rural Workers (BRW-DOLE), to be considered juridical entities. As juridical entities, ARBOs can then enter into contracts with both government and private institutions. This means ARBs and other smallholders through the ARBOs can have access to the formal economy.

Currently, DAR with support of the International Fund for Agricultural Development (IFAD), is implementing a Convergence on Value Chain Enhancement for Rural Growth and Empowerment (Project CONVERGE). The primary objective of CONVERGE is to enhance the production and supply end of the value chain for smallholders. The project gives emphasis on improved processes to increase production and net benefits to farmers through the use of better inputs and access to technology, higher yielding varieties, equipment and others. It benefits smallholders by linking them to markets and improving their capacities for enterprise development. The links to higher levels in the chain are intended to result in value-addition activities or the development of value chains with links to more sophisticated markets.

A key output of CONVERGE is to strengthen ARBOs to be effective participants in the value chain. In recent years, we have seen the build-up of farmer organizations that participate in AVC but there can also be significant reversals in participation. The objective of this paper is to evaluate how ARBOs participate in the value chain; how they engage actors along the value chain and what are the challenges to ARBOs of participation in value chain.

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¹ Since ARC is community/area-based, the clusters also included farmers that are not beneficiaries of CARP (or non-ARBs).

2. Literature Review

Value chain refers to a series of value adding activities from production to the end use of a product or service (Sturgeon 2000). It involves organized linkages among actors in the chain that consist of producers, traders, processors, service providers. The participants in the chain benefit from reduce cost of doing business, improve access to technology, information and capital to enable them to innovate production and marketing processes and thus, gain higher value and provide better quality products (ADB 2012).

Integration through the value chain has become critical in the recent years as food and agriculture commodity markets have become more sophisticated (Bijman, et al 2010). Small farmers, especially in developing countries must now adapt production methods to meet the demands of the local and international markets. Also, they need to be closely aligned with other actors in the value chain as agriculture value chains become internationalized and concentrated.

In view of these structural changes, the collective coordination of small farmers through cooperatives or farmers' associations has become critical for increased productivity and incomes of the farm sector. Membership in a cooperative or other farmer organizations does matter for them, thus, in recent years there is renewed interest to strengthen these organizations. As noted in several studies, farmer organizations have a key role in enhancing small farmers access to input and output markets and increasing competitiveness (Justus et al, 2018; ADB 2012; Markelova, et. al 2009; Hellin et al 2007). The benefits of these organizations are found evident especially in the agriculture sector that is constrained by limited economies of scale, high risks and transaction costs. Hellin et al (2007) also noted that farmer organizations have profound impact particularly in markets that are specialized and dedicated to quality, safety and consistency of products. They are critical in crops where the transactions costs to access output markets are high and where there is a need for major investments to compete in the market. Stockbridge et al (2003) identified several services provided by farmer organizations that has led to effective participation in value chains. These services are:

- Marketing services (e.g. input supply, output marketing and processing, market information)
- Facilitation of collective production activities
- Financial services (e.g. access to credit, savings)
- Technology services (education, extension, research)
- Education services (business skills, health)
- Welfare services (health, safety nets)
- Policy advocacy
- Management of common property (e.g. water, pastures, forests) and shared facilities

Farmer organizations participation in AVCs is a mechanism to resolve market failures. However, access or participation to AVCs are often limited. Barrett, et al (2010) noted that this could be due to several conditions faced by smallholders themselves. Smallholders productivity could be limited by geographic or biophysical constraints, poor infrastructure and institutional issues such as limited access to credit and insurance, insecure land rights, uncertainty of new risks. Participation to AVCs may also vary by crop and agroecology. Examples of agroecology factors are crops requiring processing within few hours of harvest or crops that can be grown only in areas with reliable source of water or crops that grow only in high elevation.

Another issue to effective participation in AVC is weak farmer organizations. These organizations could be poorly managed. Markelova, et al (2009) noted that smallholders rarely self-organize in a formal way due to lack of resources, limited leadership skills, weak organizational capacity. Their sustainability as organizations is a major challenge and often those created would last only up to the end of development projects. A cooperative is claimed to have a dual nature (Draheim 1955 in Bijman 2010). It is a community of members and a joint enterprise thus social interaction among members plays an important role in the performance of the enterprise.

There could also be lack of coordination among actors in the value chain. Coordination is critical due to mutual dependencies between different activities and transactions in the value chain (Bijman, Muradian, Cechin 2010). In particular, value chain requires sequential coordination or hierarchical dependency among actors led by a coordinating agent that plans and directs the flow of products and information. In agriculture, this role is usually played by big firms or exporters that link themselves to farmer organizations for supply of major inputs. The transactions and activities among firms and organizations need to be aligned and such condition has transaction costs. It is important to note that in the value chain, the dependencies are additive, that is, well coordinated AVC can be achieved when the pooled dependency of farmer organizations is also properly working.

Lowitt, et al (2015) surmised that there are key social interactions that are necessary in both cooperative performance and value chain coordination. These are: collaboration, trust and learning/knowledge generation/sharing. These interactions can be developed through supportive conditions (see below) to help strengthen organizations and create environments for value chain development.

Key Interactions in value chain	Supportive Conditions
Collaboration	<ul style="list-style-type: none"> • Clear communication • Participation by all actors in decision-making • Everyone has a role to play • Establishing common goals • Build formal and informal social interactions
Trust	<ul style="list-style-type: none"> • Honesty and transparency • Words and actions need to match • Good listening skills • Understanding past experiences
Learning/Knowledge generation/Sharing	<ul style="list-style-type: none"> • Humility • Being open to others' perspectives • Combining expertise and experience

Source: Adapted from Lowitt, et al (2015)

Given the complexity of the dependencies in value chain, farmer organizations have to be effective in dealing with increasing vertical and horizontal (i.e. sequential) coordination. There are success stories from which lessons can be drawn. One key lesson is the need for farmer organizations to use a combination of coordination mechanisms that can vary based on size and member heterogeneity; the market and the value chain conditions. It is also important to

note the limits of community and democratic mechanisms and the need to introduce hierarchy and decision-making powers especially as farmer organizations increase in size and diversification.

3. ARBOs and Value Chain of Selected Crops

To understand the role of ARBOs in agriculture value chain, there is a need to know the internal processes and activities in relation to the production, marketing, supply sourcing, etc., of a product. Product processes and activities may differ amongst crops thus, the participation and importance of ARBOs may likewise differ. Based on CONVERGE data, we identified 4 major crops that is supported by the program. These are: rice/corn; coconut; rubber and abaca. A schematic diagram of the value chain for these products are presented in Figures 1 to 4. For each crop, the sequential functions/activities from production to final sale are identified. The operators and enablers in the AVC show the key stakeholders or agents in the value chain.

Rice and corn are annual crops that are cultivated extensively in the country. The sequential functions include traditional farming activities from acquiring inputs, land preparation, planting, farm maintenance, harvesting and drying to distribution or final sale. The farmers are the main operators from production to harvest. Distribution is mainly handled by millers and traders, who consolidate the farmers produce for both domestic and export markets. Farm maintenance, drying facilities and markets are at the low level of the value chain. The ARBOs play a role in enabling smallholders access to the technology and inputs for production. It is important to emphasize that access to the high yielding varieties and other production technologies depend mainly on the farmer participation in the training and extension programs of government. There is minimal if not negligible requirement on equity or investments from individual farmers and the ARBOs.

Another crop important for value chain development and is promoted as high value crop in the country is abaca. Unlike rice, abaca value chain includes primary processing activities after harvest. Abaca fibers are produced from stripping abaca barks. Fibers are then dried, bundled for grading/classification before trading. Stripping is a laborious process if done manually thus there is a need for a stripping equipment to enable farmers to raise productivity. Moreover, the segregation of fibers based on quality is needed for trade. The certification of fiber quality is given and regulated by the Philippine Fiber Industry Development Authority (PhilFIDA). Although fibers can be sold unbundled and ungraded, it will be traded in the informal market and is valued below its market price. Value adding activities for abaca farming, thus are important at the production stage to postharvest processing to increase productivity and incomes. The primary processes for abaca, i.e. from stripping to bundling and certification require shared facilities especially for smallholders given the capital investments needed. In particular, farmer organizations play a critical role to enable shared facilities and reach out to other small farmers. Box 1 show the postharvest facilities to enable smallholders to participate in higher levels of the value chain. These facilities cooperation for financing and maintenance for sustainability.

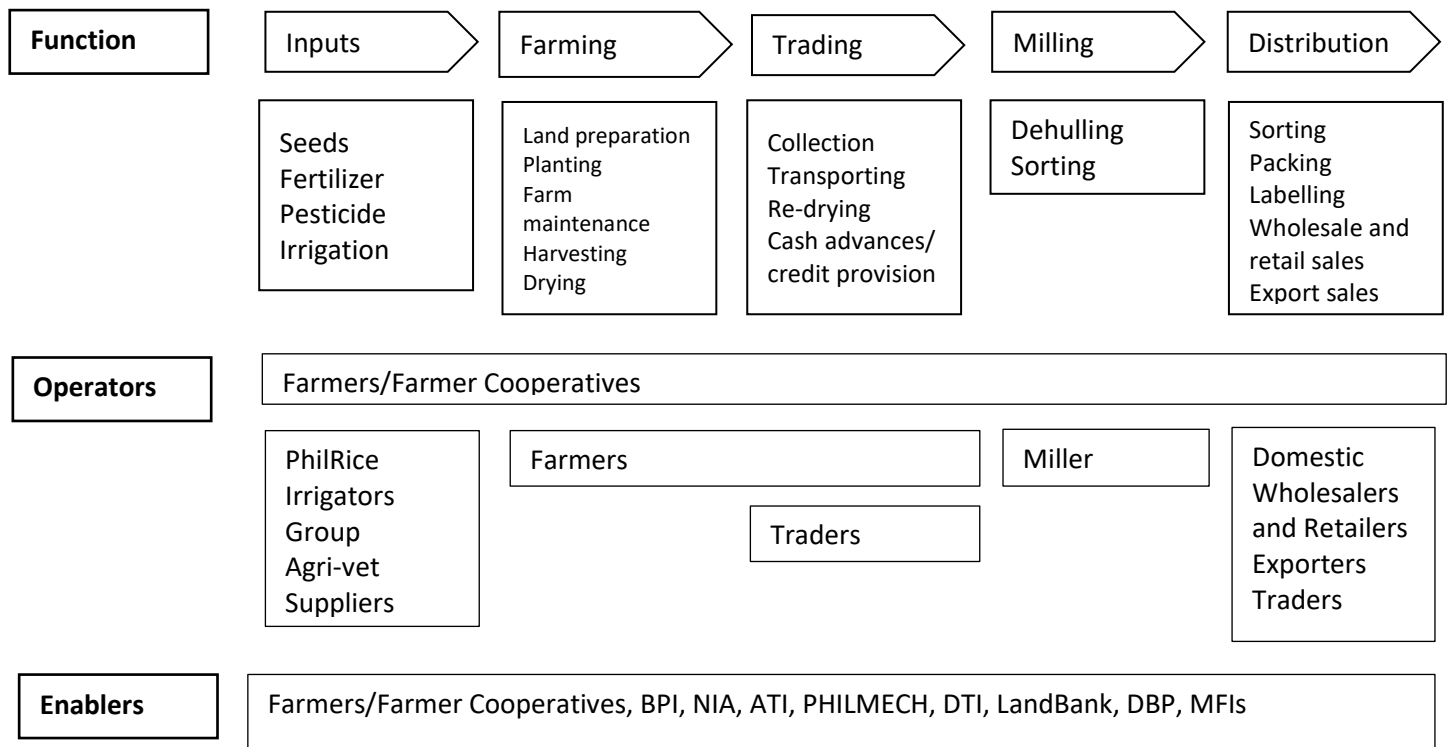
Another high value crop that require value adding activities for processing is rubber. Rubber value chain involves activities from production to latex extraction and primary processing. To enhance farm production and incomes farmers have to adopt of best farm practices, raw materials consolidation, quality control and marketing. While production is done individually, farmers organizations have to be created to enable delivery of agricultural tools and equipment

to improve farm production operation. Moreover, to participate in higher value chain, smallholders have to develop the rubber marketing enterprise whereby the rubber cup lumps from members and farmers in other neighboring barangays are consolidated so that they can trade directly with domestic manufacturers and the export market. Smallholders that operate individually can only trade with trader-buyers.

Similar to abaca and rubber, coconut-sugar value chain involves value adding activities from production to product processing. The coconut sap collected from farmers has to undergo product transformation for higher value product (i.e. coco sugar). Processing involves boiling, granulation and drying. These processing require a processing plant and equipment to produce higher value outputs. Box 2 shows the processing facility of the Linabu Agrarian Multi-Purpose Cooperative (LAMPCO) in Misamis Oriental where coconut sap is collected for the manufacture of coco-sugar. Aside from processing facility and equipment, coco sugar production, in particular, has agroecological peculiarities. Availability of a reliable source of water is needed near the farm so that the quality of the sap can be preserved.

Overall, farmers are the major operators in agriculture value chain specifically involving production. To have a greater role in higher value chain such as product transformation and marketing, farmers especially smallholders need to cooperate and organize themselves. Small farmers usually do not have the capital or technology or facility to carry out these other processes thus a unified arrangement such as the ARBO is needed to enable them to have greater participation in the trade of more sophisticated products.

Figure 1. Rice Value Chain

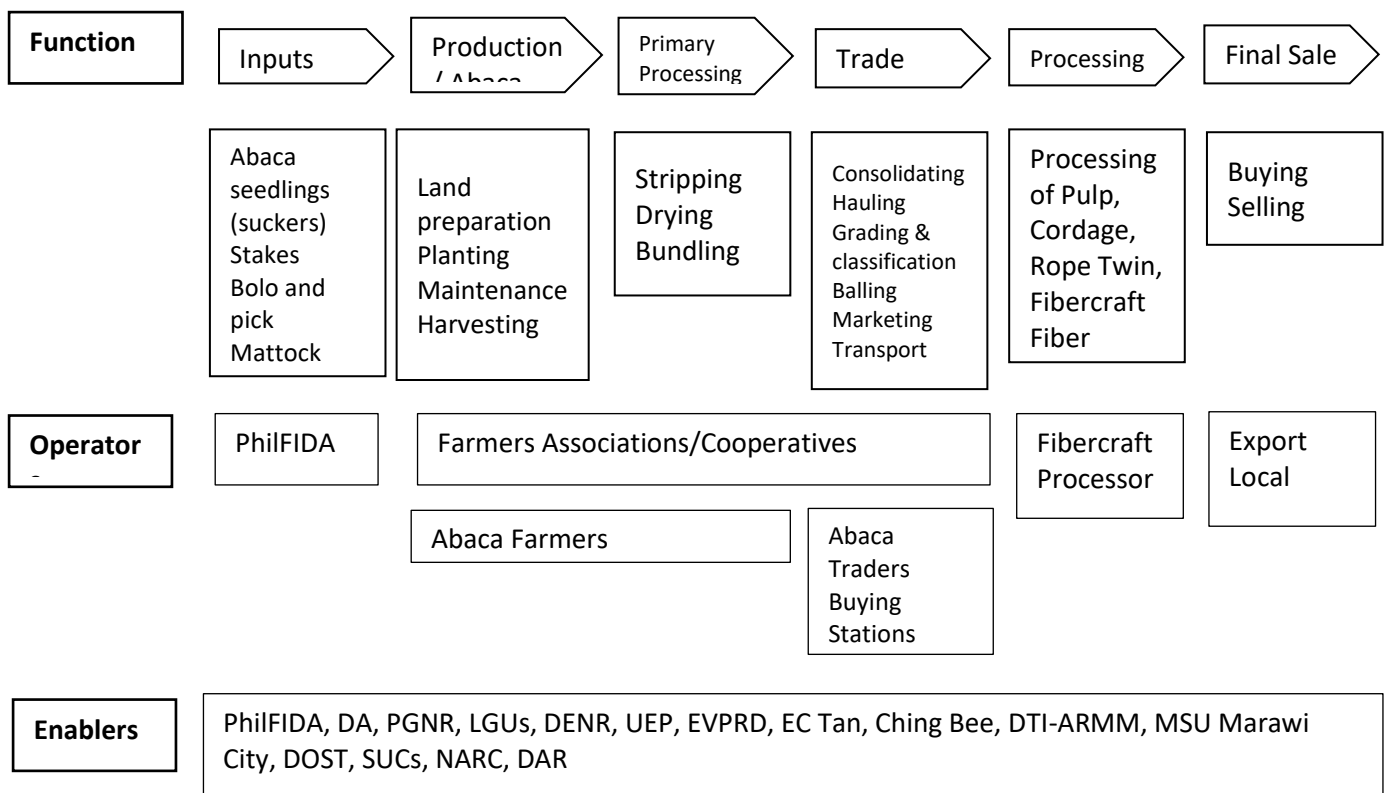


Sources: Dargantes et al. 2016; FAO 2016; and Kürschner et al. 2016

Notes: ATI – Agricultural Training Institute

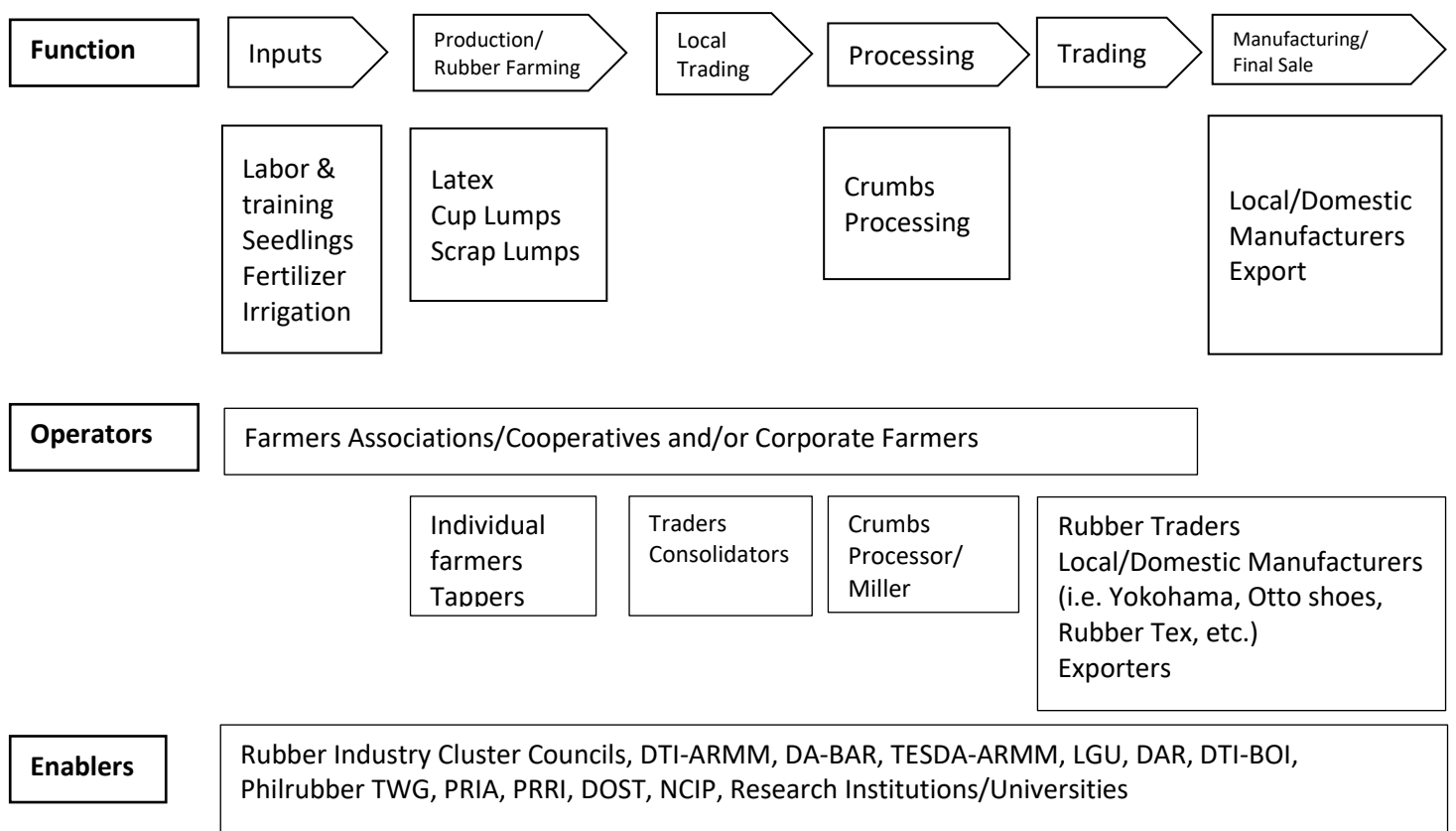
PHILMECH – Philippine Center for Postharvest Development and Mechanization

Figure 2. Abaca Value Chain



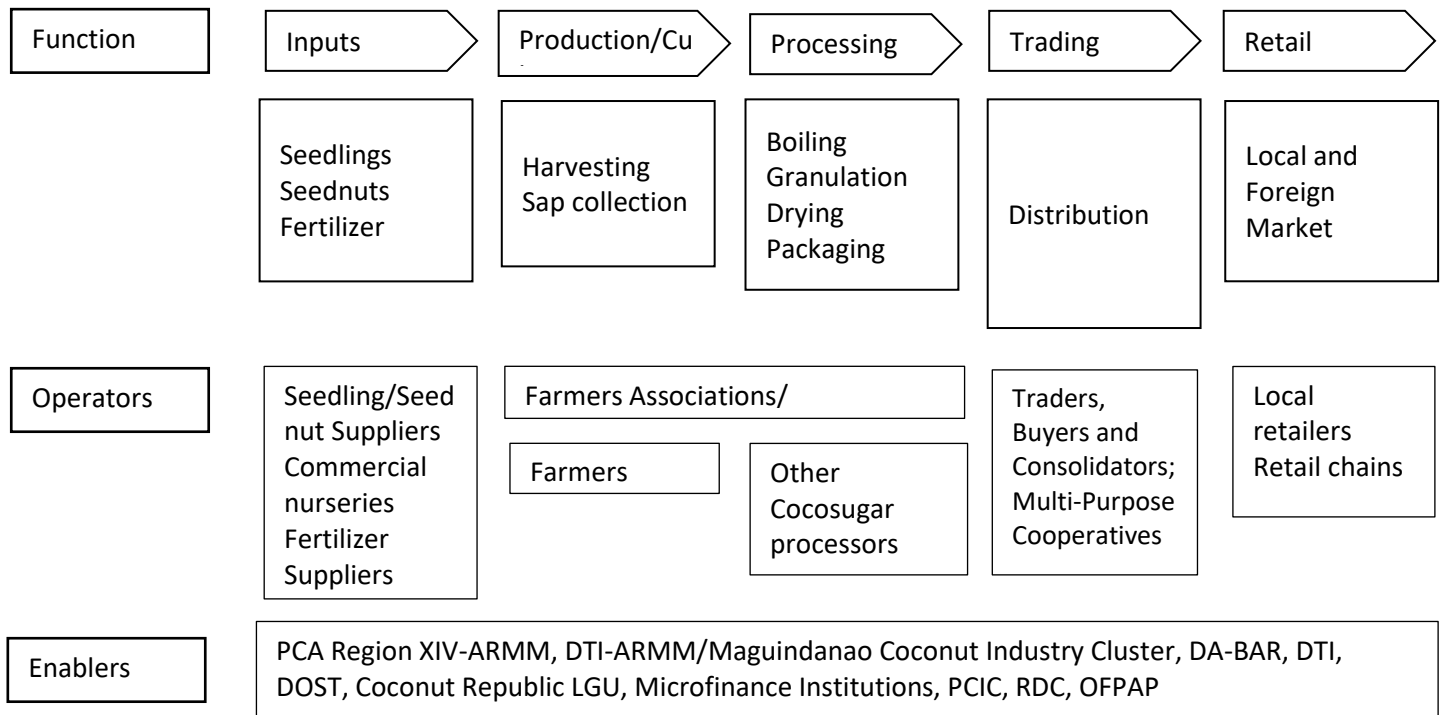
Sources: Authors' compilation of information from Briones 2014; Celestino et al. 2016; and DTI-BARMM 2019

Figure 3. Rubber Value Chain



Sources: Authors' compilation of information Daly 2017; DAR n.d.; DTI-BARMM 2019; and PhIRubber TWG 2016
 Notes: PRIA – Philippine Rubber Industries Associations
 PRRI – Philippine Rubber Research Institute
 PPRPC – Philippine Pioneer Rubber Products Corporation

Figure 4. Coco-sugar/Coco-sap Value Chain



Sources: Authors' compilation of information Ananda Venture 2017; DTI-BARMM 2019; and Mendoza & Cruz 2019
 Notes: PCA – Philippine Coconut Authority
 DA-BAR – Department of Agriculture – Bureau of Agricultural Reform
 PCIC – Philippine Crop Insurance Corporation
 RDC- Regional Development Council
 OFPAP – Organic Farmers and Processors Association of the Philippines

Box 1: Post Harvest Equipment/Shared Facilities

San Isidro Upper Farmers Multi-Purpose Cooperative (SIUFMULCO), Agusan Del Norte



Stripping Machine



Hauling trucks



Warehouse/ Baling Machine

Box 2: Post Harvest Equipment/Shared Facilities

Linabu Agrarian Multipurpose Cooperative (LAMPCO), Misamis Oriental



Processing Facility



Drying/Mixing Equipment

4. Organizational Maturity of DAR-Assisted ARBOs

4.1. Overview of the Assessment Tool

In 2015, DAR developed a tool known as ITEMA or Information Technology-enabled Maturity Assessment to assess the organizational maturity of ARBOs.² The main objective of ITEMA is to come up with comprehensive and realistic results for assessing the levels of maturity of ARBOs and identifying development gaps. The assessment serves as basis for the interventions that will be given to ARBOs. The I.T. nature of ITEMA makes the processing and analysis of data per organization and determination of their maturity levels easier. It also allows for easier identification of factors that affects the maturity levels of ARBOs.

ITEMA has five (5) phases, namely: 1) Data Gathering; 2) Data Processing; 3) Report Writing; 4) Presentation of Results; and 5) Feed Backing. Before the data gathering phase, the concerned offices at the DAR Provincial Office submit their validated masterlist of DAR-assisted ARBOs to the Planning Service (PS). The ARBOs included in the masterlist of each DAR Provincial Office will be those that will be assessed. The Provincial Lead Enumerators (PLEs) are mainly in charge of the data gathering. Data gathering is done through face-to-face interview with key informants, which may either be elected officers or staff of the organization. The enumerators use the ITEMA data entry application in conducting the interviews, wherein the responses are directly inputted in the application. Aside from verbal responses, their answers must also be supported by photos or documentary proofs, which can also be inputted in the application. Once the data entries are finalized, they will be uploaded to the ITEMA ARBOs Database in the DAR Central Office-PS (DARCO-PS). The data processing phase is handled by the DARCO ITEMA Monitors/Coordinators (DIMCs) with the guidance of the ITEMA information and technology (IT) consultant and ITEMA monitoring and evaluation (M&E) consultant. They make use of a business intelligence software called “QlikSense” to come up with results, which will then be shared to the Regional and Provincial levels to be used for report writing. The Plan Implementation Monitoring and Evaluation Division (PIMED) of the Planning Service is tasked to prepare a national level report containing an in-depth analysis on the levels of maturity of the ARBOs based on the results. The report is then submitted to the DAR Executive Committee (EC) to be used as reference for future policy issuances, plans, programs and interventions for ARBOs. Other sectors within DAR and concerned partner agencies may also avail of the report. The Planning Service (PS) is responsible of the presentation of ITEMA results to the DAR management and other interest groups and promotion for its use. The final phase is giving feedback on the results, which can be done through meetings or distribution of materials containing the results of ITEMA for review. Issues encountered during data gathering and processing can also be discussed in these sessions.

4.2. Indicators of ARBOs Organizational Maturity Level

ITEMA looks at five (5) main indicators or key results areas (KRAs) to assess the maturity level of organizations. These are: 1) Organizational Management (OM); 2) Resource Management (RM); 3) Social Enterprise/Business Operations (SEBO); 4) Financial Performance (FP); and 5) Alliance Building and Social (ABaSR) Responsibility.

The Organizational Management (OM) indicator aims to measure the level of maturity of an ARBO in terms of effectively managing their operations. The following indicators assessed

² The ITEMA replaced the ARC Level of Development Assessment (ALDA) assessment tool. However, ITEMA is currently focused on organizational maturity assessment and have yet to develop the other components of the assessment tool.

under Organizational Management (OM) are: a) development and/or formulation of the vision, mission, goals, and objectives; b) preparation of strategic and annual operational plans, and its implementation and monitoring; c) installation and implementation of policies, systems and procedures (PSPs); d) functionality of ARBO officers and committees; e) membership; f) attendance to relevant trainings by officers and core management staff; g) conduct of general assemblies, meetings and other organizational activities; and h) compliance to requirements of relevant regulatory agencies. The Social Enterprise/Business Operations (SEBO) area focuses on the management and operationalization of the businesses/enterprises of the ARBOs. The indicators measured under this are: a) number of enterprises operated; b) establishment and implementation of policies, systems and procedures (PSPs) on businesses/enterprises; and c) volume of business enterprise. Other important aspects of organizational sustainability being measured by ITeMA are Resource Management (RM), Financial Performance (FP) and Alliance Building and Social Responsibility (ABaSR). Indicators under RM are: a) participation to resource mobilization (CBU/capital contribution); b) increase in CBU/share capital/annual dues; c) participation to savings mobilization; d) increase in savings collection; and e) employment of core management team. For Financial Performance, the following are measured: a) external loan repayment; b) return on equity (ROE); c) return on assets (ROA); d) Debt-equity ratio; e) liquidity ratio (current ratio); and f) interest on share capital and patronage fund. In terms of Alliance Building and Social Responsibility (ABaSR), the following are being measured: a) sectoral representation in local development councils and alliances; b) disaster risk reduction management (DRRM) and climate change adaptation (CCA); and c) contribution to community development. The summary of the indicators under these key result areas and their respective weights is shown in Appendix A.

For indicators that are not applicable to certain organizations, the weights of those indicators are distributed to the rest of the indicators to maintain the 100-points maximum possible score for all organizations. For instance, the indicator ‘Interest on share capital and patronage refund’ does not apply to non-cooperative types of organizations. Another is, the indicator ‘Increase in CBU / share capital / annual dues’ cannot be applied to organizations that have only been operating for less than two (2) years.

ITeMA covers ARBOs in both ARC and non-ARC areas. However, maturity index scores are only computed for operational ARBOs with complete valid data. ARBOs considered non-operational are as follows: 1) ARBOs reorganized during the year; 2) ARBOs still at start-up stage; 3) ARBOs that are temporarily non-operational, or those that did not do organizational and economic activities during the year but expressed their intentions of carrying on their operations in the following years; and 4) Dead ARBOs, or those that have completely ceased their operations and have no, if not very little, intentions of reviving their operations. Also counted by ITeMA are those ARBOs who refused to take part of the assessment. ARBOs can also be classified as cooperatives and non-cooperatives. Non-cooperatives are comprised mostly of farmers’ associations/organizations, irrigators association, women’s association and water users’ organizations among others.

The assessment of ARBOs is done every year since 2016. Given that ITeMA is relatively new, it is continually being improved to better achieve DAR’s organizational outcomes. Just this May 2018, the ITeMA Rating system was reviewed and revised by the ITeMA Technical Working Group. Some of the revisions made were addition of new indicators such as: ‘Participation of women in BOD/Executive Officers/Committees’ and ‘Recruitment of new ARB members’. The latter replaced the ‘Increase in total membership’. Also, some of the existing indicators were given higher weights, such as those related to recruitment and

trainings. Attainment levels for ‘Attendance of members to meetings and other organizational activities’, and ‘Members participating in savings mobilization’ were also revised. The overall Key Results Areas were also adjusted, wherein “Alliance Building and Sustainability” and “Social and Environment Responsibility” were combined for simplicity. The summary of the indicators for 2018 ITeMA and their respective weights can found in Appendix A.

For the 2018 ITeMA, there were 5,799 ARBOs listed for coverage from both ARC and non-ARC areas (Table 1). Of the total ARBOs, 5,228 ARBOs or about 90% of total are operational; 438 (7.6%) are non-operational and 133 ARBOs (2.4%) refused to be subjected to ITeMA. Of the operational ARBOs, 5,201 ARBOs have valid data.³

The CONVERGE Project is piloted in three regions- Region 9 (Zamboanga Peninsula); Region 10 (Northern Mindanao) and CARAGA. There are a total 1,057 operational ARBOs in these regions representing about 20% of the total ARBOs in the country. Note that not all provinces in the three Regions are CONVERGE areas. Only 10 provinces are CONVERGE sites, thus the population of ARBOs for CONVERGE would be lower.

Table 1: Distribution of Operational and Non-operational ARBOs by Region, 2017

Region	Total No. of ARBOs	Refused to be Covered	Non-operational ARBOs	Operational ARBOs	No. of ARBOs with valid data	% of Operational ARBOs with valid data by Region
CAR	221	2	8	211	208	4.0
Region I	295	9	8	278	275	5.3
Region II	271	25	8	238	237	4.5
Region III	708	2	49	657	656	12.6
Region IV-A	271	5	13	253	253	4.9
Region IV-B	162	-	7	155	155	3.0
Region V	283	-	26	257	253	4.9
Region VI	377	-	36	341	341	6.5
Region VII	396	4	19	373	369	7.1
Region VIII	458	2	24	432	432	8.3
Region IX	343	20	9	314	314	6.0
Region X	424	13	21	390	386	7.4
Region XI	373	13	22	338	338	6.5
Region XII	661	1	130	530	528	10.1
CARAGA	417	14	50	353	352	6.8
ARMM	139	23	8	108	104	2.0
Total	5,799	133	438	5,228	5,201	100.0

Source: Author’s Representation of data from DAR ITEMA 2018

*The highlighted regions are the regions covered by the ConVERGE project

³ Maturity index scores are computed only for ARBOs with valid data.

4.3. Distribution of ARBOs by Maturity Level

There are five (5) levels of maturity in ITEMA, with Level 1 as the lowest and Level 5 as the highest. The range of maturity index scores per level for the 2018 ITEMA is as follows: Level 1: 1.67 to 18.25; Level 2: 18.28 to 30.93; Level 3: 31.04 to 44.00; Level 4: 44.07 to 59.11; and Level 5: 59.25 to 94.50.

Moreover, Level five (5) is further divided into three (3) categories, namely: “Silver”, “Gold”, and “Platinum”, with “Platinum” as the highest award. All Level 5 ARBOs by default are “Silver” and will only be able to graduate to “Gold” and “Platinum” upon attaining certain degrees of achievements set for those categories respectively.

On the average, ARBOs in the country have a maturity index score of 34.3 equivalent to Level 3 organizational maturity (Table 2). The region with the highest average maturity index score is CAR with 44.92 while ARMM has the lowest with 20.12. Moreover, ARMM has no ARBO that has reached level 5 maturity. Also, there are eight (8) regions that has average maturity index scores less than the national average. These regions are ARMM, Regions V, VI, VIII, XII, and the regions identified as ConVERGE sites, Regions IX, X, and XIII.

In terms of distribution of ARBOs by maturity within regions, the table shows that Region XII has the highest share of ARBOs with level 1 maturity with 27.01% while Region IV-B has the lowest with 1.13%. On the other hand, Region III has highest share of ARBOs with Level 5 maturity with 16.95% while ARMM is the lowest with no ARBO that has achieved level 5 maturity. In the CONVERGE Regions, about 30% of ARBOs in Region XIII have higher level of maturity (Levels 4 and 5) compared to 26% and 23% for Region IX and Region X, respectively.⁴

Table 2. Distribution of Operational ARBOs by Maturity Level by Region

Region	# of Operational ARBOs with valid data	Mean of ITEMA Results	% by maturity level and % by region					Total
			1	2	3	4	5	
CAR	208	44.92	7.7	14.4	23.1	7.0	20.7	100.0
			1.4	2.4	3.9	7.1	8.0	4.0
Region I	275	44.83	6.2	15.6	27.6	31.3	19.3	100.0
			1.5	3.4	6.1	8.6	9.9	5.3
Region II	237	44.44	6.3	18.1	26.6	27.9	21.1	100.0
			1.3	3.4	5.1	6.6	9.3	4.6
Region III	656	40.15	10.7	18.6	32.3	24.5	13.9	100.0
			6.1	9.7	17.1	16.0	17.0	21.6
Region IV-A	253	36.15	15.4	27.3	25.7	20.2	11.5	100.0
			3.4	5.5	5.2	5.1	5.4	4.9
Region IV-B	155	41.41	8.4	21.9	21.3	32.3	16.1	100.0
			1.1	2.7	2.7	5.0	4.7	3.0

⁴ According to CONVERGE Program managers, ITEMA is only one of the assessment tools used. Other assessment tools considered are the Farmers’ Organization (FO) Survey and Training Needs Assessment (TNA), which also covers groups that have not yet received assistance from DAR.

Region V	253	33.05	19.4	25.7	32.4	16.6	5.9	100.0
			4.2	5.2	6.6	4.2	2.8	4.9
Region VI	341	33.94	23.5	22.6	27.3	16.7	10.0	100.0
			6.9	6.1	7.5	5.7	6.3	6.6
Region VII	369	35.31	17.1	29.5	22.0	21.7	9.8	100.0
			5.5	8.6	6.5	8.0	6.7	7.1
Region VIII	432	28.81	26.6	34.5	23.6	11.1	4.2	100.0
			10.0	11.8	8.2	4.8	3.4	8.3
Region IX	314	33.12	21.3	30.9	21.7	16.6	9.6	100.0
			5.8	7.7	5.5	5.2	5.6	6.0
Region X	386	31.31	28.0	25.9	22.0	17.6	6.5	100.0
			9.4	7.9	6.9	6.8	4.7	7.4
Region XI	338	36.15	19.2	22.8	23.7	20.1	14.2	100.0
			5.6	6.1	6.5	6.8	8.9	6.5
Region XII	528	19.27	59.1	25.6	8.1	4.7	2.5	100.0
			27.0	0.1	3.5	2.5	2.4	10.2
Region XIII	352	34.33	20.5	22.2	27.6	22.2	7.7	100.0
			6.2	6.2	7.8	7.8	5.0	6.8
ARMM	104	20.12	51.9	32.7	12.5	2.9	0.0	100.0
			4.7	2.7	1.1	0.3	0.0	2.0
Total	5,201	34.33	22.2	24.3	23.9	19.3	10.3	100.0
			100.0	100.0	100.0	100.0	100.0	100.0

Source: Author's interpretation of data from DAR ITEMA 2018

5. Profile OF ARBOs in ConVERGE Areas

5.1. Key Features of ARBOs

The CONVERGE program covers 11 provinces in Regions IX, X, XIII (or CARAGA). Based on ITEMA, there are 954 ARBOs in the selected CONVERGE provinces of which 875 ARBOs have been operational for more than one year (Table 3). The number of operational ARBOs in these provinces represent 80% of the total operational ARBOs in the three Regions. The provinces of Bukidnon, Zamboanga del Sur and Zamboanga del Norte have the most number of operational ARBOs.

On the average, ARBOs in CONVERGE provinces consist of 192 members. Average membership size is higher in the provinces of Zamboanga del Sur and Agusan del Norte. ARBOs comprise, on the average, 48% of membership in ARBOs. ARBOs in the Provinces of Bukidnon and Surigao del Norte have higher representation of ARBOs.

A significant number of ARBOs are registered as cooperatives. In CONVERGE selected provinces, more than 40% are cooperatives (Table 4). In Region X, about one third (74.5%) are cooperatives; 14% are farmer organization while the rest are irrigators/water associations. In Region XIII, 51% of ARBOs are cooperatives while 36% are farmer organizations. In Region IX, 40% of ARBOs are cooperatives; 27% are farmer organizations and 20% are irrigators/water associations. ARBOs in the CONVERGE provinces are comparable in terms

of organizational maturity based on average ITEMA scores of 33 to 35. It is important to note that a significant percentage of ARBOs have no capital build-up or share contribution. Moreover, less than 40% of ARBOs in these provinces practice savings mobilization among members.

A positive association between membership size and organizational maturity is noted suggesting that ARBOs with larger membership have higher maturity level. However, given that the data shows that membership size is clustered below 500 members, the positive although weak correlation could imply that more mature ARBOs are likely to attract more members.

Table 3. Membership of Operational ARBOs in ConVERGE Provinces, 2017

All ARBOs in ConVERGE Areas		Population				
Region	Province	# of ARBOs*	Operational ARBOs with valid data*	# of members (operational ARBOs)	Ave. size of ARBOs	% of ARB members to total members
Region IX	Zamboanga del Norte	100	100	19,870	199	50.5
	Zamboanga del Sur	113	112	39,125	349	42.8
	Zamboanga Sibugay	103	76	11,172	147	49.2
Region X	Bukidnon	128	117	16,591	142	55.4
	Camiguin	17	17	1,988	117	36.1
	Misamis Oriental	85	78	15,281	196	33.8
Region XIII	Agusan del Norte	73	68	9,324	137	44.4
	Agusan del Sur	130	95	18,937	199	56.8
	Surigao del Norte	67	62	8,510	137	55.8
	Surigao del Sur	59	59	9,482	161	48.9
All Provinces		875	784	150,280	192	48.6

"Source: ITEMA 2018

*Author excluded operational ARBOs that are operating for one year or less

Table 4. Profile of Operational ARBOs in ConVERGE Provinces

	Region IX	Region X	Region XIII
# of ARBOs	288	212	284
Ave. no of Members	243	160	163
Ave. % of ARBs	47.2%	45.9%	52.0%
Ave. ITEMA Score	33.42	35.37	33.80
Maturity Level	3	3	3
% Cooperatives	42.0%	74.5%	51.1%
% Farmers' Association/Organization	27.1%	14.2%	35.9%
% Irrigators Association	9.4%	6.6%	8.5%
% Water Users Association	11.1%	1.9%	2.8%
% Women's Association	9.4%	2.4%	1.4%
% Other types of Organization	1.0%	0.5%	0.4%
Ave. CBU (in '000 Pesos)	2,222.27	628.65	852.35

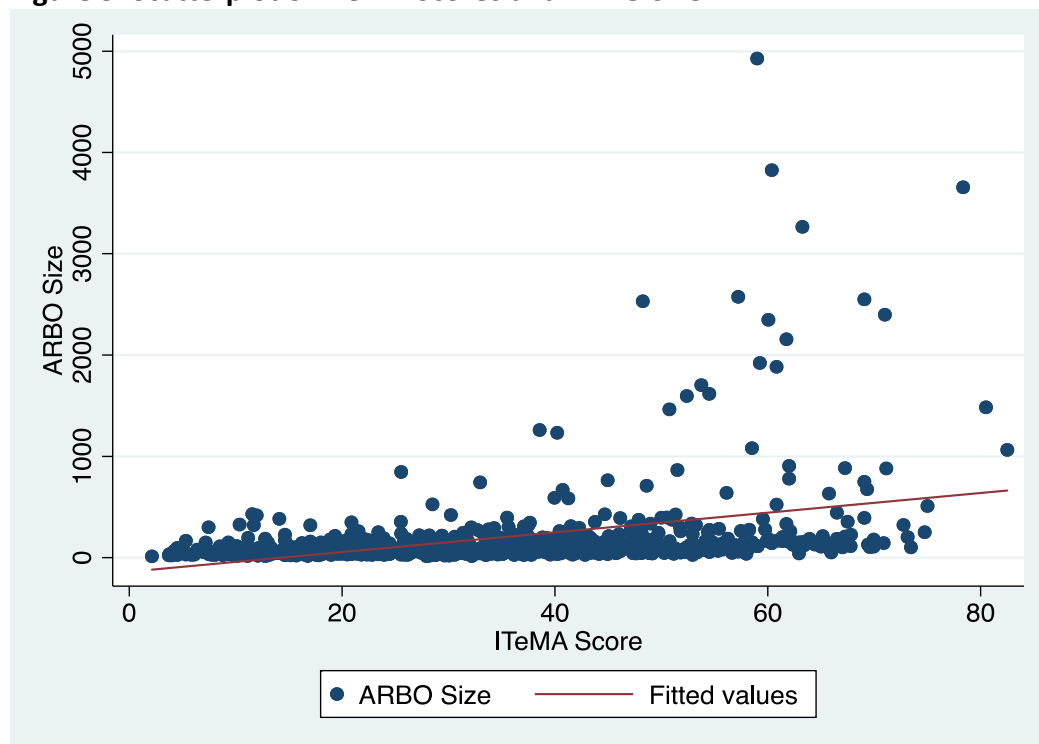
% with CBU	38.9%	65.6%	62.7%
% with savings	17.7%	38.7%	25.7%

Note: ConVERGE Areas are the 10 provinces covered by the project (Zamboanga Del Norte, Zamboanga Del Sur, Zamboanga Sibugay, Bukidnon, Cmaiguin, Misamis Oriental, Agusan del Norte, Agusan del Sur, Surigao del Norte, and Surigao del Sur)

*Author excluded operational ARBOs that are operating for one year or less

Source: ITeMA 2018

Figure 5. Scatterplot of ITeMA Scores and ARBO Size



Correlation	ITeMA Score
ARBOs Size	0.31

Source: ITeMA 2018

5.2. Characteristics of LARBOs and PARBOs in CONVERGE areas

The CONVERGE program has identified ARBOs as the channels for the delivery of value chain interventions. The ARBOs are classified into either lead ARBOs or LARBOs and participating ARBOs or PARBOs. The interventions are delivered initially to the LARBOs, which are expected to cascade the interventions and the benefits thereof to PARBOs. The LARBOs are considered the mature farmer organizations, usually a cooperative that has exhibited sustainable operations in the medium to long term. On the other hand, PARBOs are the organizations that have yet to reach acceptable organizational and financial maturity. The approach applies a “big brother” scheme whereby the LARBOs assist to capacitate less mature PARBOs.

Currently, there are eleven LARBOs identified by DAR as the main conduits of CONVERGE interventions. These LARBOs have been in existence for several years and are organizationally

functional based on their Maturity levels of 4 to 5 (Table 5). There are three LARBOs with Maturity level of 5 and eight LARBOs with Level 4 maturity. All the LARBOs are established as cooperatives but membership size varies significantly. The largest LARBO in terms of size is MAFAMCO in Zamboanga del Norte with 2,156 members. The smallest LARBO is SASEPCO in Agusan del Sur with 74 members.

The LARBOs produce and trade a major crop, which varies for each province. The main crop in Zamboanga Sibugay and Zamboanga del Norte is rubber. In Camiguin and Agusan del Norte, the main crop is abaca. Other main crops are rice, coconut sugar, coconut and bio fertilizer, muscovado sugar, cassava and coffee.

It is important to note that not all mature LARBOs have savings component but all LARBOs require their members to contribute to capital build-up. The capital build-up is used mainly for business investments of LARBOs. On the other hand, savings is not required of members in some LARBOs. A LARBO mentioned that the reason for this is that members do not want to put all their funds including savings in just one organization. It is possible that some members use savings for other investments (e.g. housing, education).

Table 5. Profile of LARBOs, 2017

Region	Region IX	Region X	Region XIII
# of LARBOs	3	4	4
Main Commodities	Rubber, Rice	Cassava, Muscovado Sugar, Coconut Sugar, Abaca Fiber	Abaca Fiber, Rice, Coconut and Bio Fertilizer, Coffee
Ave. # of Members	986	558	154
Ave. % of ARBs	52.8%	29.5%	42.9%
Ave. ITeMA Score	63.24	54.98	47.08
Ave. Maturity Level	5	4	4
% Cooperative	100.0%	100.0%	100.0%
Ave. CBU ('000 Pesos)	9,992.68	1,115.82	1,337.67
% with CBU	100.0%	100.0%	100.0%
% with Savings	66.7%	66.7%	50.0%

Source: ITeMA 2018 data

Similar to LARBOs, the PARBOs are also organized and registered with DOLE or SEC. However, they generally have low maturity levels. There are about 119 operational PARBOs in CONVERGE provinces of which 78 PARBOs have been covered in ITeMA 2018 survey (Table 6). Most of the 78 PARBOs are found in Agusan del Norte. Other provinces with at least 10 PARBOs are Bukidnon, Agusan del Sur, Zamboanga Sibugay. Camiguin has only two PARBOs, the least number of PARBOs among the provinces due to its relatively small size compared to the other provinces. The maturity level of most PARBOs is at Level 3. Almost half (48%) of the 78 PARBOs belong to this category. There are 24 PARBOs with lower maturity level (Level 2) and there are 16 PARBOs at Level 4 maturity. PARBOs in Zamboanga del Sur, Surigao del Sur and Surigao del Norte showed higher organizational maturity amongst other provinces in CONVERGE. PARBOs with lowest maturity level (Level 2) are mainly found in Zamboanga Sibugay and Agusan del Norte.

PARBOs are organized either as a cooperative, farmers' association or irrigators association. In Misamis Oriental, Surigao del Sur and Surigao del Norte, all PARBOs are organized as cooperatives. There are also more ARBOs registered as cooperatives in Zamboanga del Sur and Zamboanga del Norte and Bukidnon. In the other provinces, about half of the PARBOs are cooperatives. The exception is Agusan del Norte, where only 20% of PARBOs are cooperatives while the rest are non-cooperatives.

As expected, the average capital generated by PARBOs through CBU or share equity of members is smaller compared to the LARBOs. Moreover, not all PARBOs have capital build-up or collect share equity from members implying that most PARBOs could still be in infancy stage. For instance, in Zamboanga Sibugay, Misamis Oriental, Camiguin and Agusan del Norte, only 50% of the PARBOs organized in these provinces have capital build-up. This is especially surprising for Misamis Oriental where 100% of PARBOs are cooperatives yet only half have been able to collect equity shares from members. ARBOs in these provinces also showed ITEMA scores below the average level.

Table 6. Profile of PARBOs, 2017

Province	Zamboanga Sibugay	Zamboanga del Sur	Zamboanga del Norte	Bukidnon	Misamis Oriental	
Total # of PARBOs*	15	5	15	17	9	
Total # of PARBOs found in ITeMA-2018 database (excluding new ARBOs)	10	4	6	11	8	
Total # of members	1,475	2,840	770	1082	935	
Ave. % of ARBs	57.3%	55.9%	84.4%	47.2%	37.6%	
Ave. Maturity Level	26.94	51.08	35.60	41.75	33.10	
ITeMA Score	2	4	3	3	3	
% Cooperative	50.00	75.00	83.33	72.73	100.00	
% Farmers' Association/Organization	50.00	25.00	16.67	27.27	0.00	
% Irrigators Association	0.00	0.00	0.00	0.00	0.00	
Average CBU ('000 Pesos)	1,637.29	3,417.73	161.70	526.12	68.90	
% with CBU	50.0%	100.0%	83.3%	81.8%	50.0%	
% with savings	0.0%	75.0%	33.3%	63.6%	25.0%	
Province	Camiguin	Agusan del Norte	Agusan del Sur	Surigao del Norte	Surigao del Sur	All CONVERGE Provinces
Total # of PARBOs*	2	24	17	6	9	119
Total # of PARBOs found in ITeMA-2018 database (excluding newly created ARBOs)	2	14	11	4	8	78
Total # of members	342	1,096	1,557	724	3,762	14,583
Ave. % of ARBs	56.7%	48.1%	69.0%	88.3%	59.0%	57.6%
Maturity Level	34.18	27.73	42.12	50.20	45.92	37.11
ITeMA Score	3	2	3	4	4	

% Cooperative	50.00	21.43	54.55	100.00	100.00	65.38
% Farmers' Association/ Organization	50.00	64.29	45.45	0.00	0.00	32.05
% Irrigators Association	0.00	14.29	0.00	0.00	0.00	2.56
Average CBU ('000 Pesos)	105.69	6,450.69	643.16	432.53	1,138.93	1,582.63
% with CBU	50.0%	50.0%	90.9%	100.0%	100.0%	73.1%
% with savings	0.0%	14.3%	27.3%	75.0%	25.0%	30.8%

Source: ITeMA 2018

*Author excluded new ARBOs defined as those in operation for one year or less

6. Issues on ARBOs Role in Value Chain Development

6.1. The “Big Brother” Scheme

Interventions on value chain under CONVERGE are channeled through LARBOs, which are ARBOs that are considered organizationally mature. Organizationally maturity is defined in terms of financial viability, capacity to comply with the required documents; have established records such as financial statements, BOD meetings; with computer systems, and usually managed by educated members or professionals. These LARBOs have been existing for years and were even organized prior to the implementation of CONVERGE project. LARBOs given their legal personality and functional maturity can easily transact in the formal economy. They also have the assets or resources for equity or counterpart funding if needed.

DAR uses the LARBOs as the link to other farmers’ organizations or PARBOs given that LARBOs have community based support and are familiar with the farming sector in the area. Moreover, the LARBOs are usually the consolidators or trading centers in the area and have direct link to product markets. Thus, LARBOs play a major role in the selection of PARBOs as beneficiaries of the program and in building the capacity of PARBOs and its farmer-members.

However, this “big brother” scheme does not necessarily translate into capacity building of PARBOs. The direct and main beneficiaries of the CONVERGE interventions are the members of the LARBOs themselves. Farmer-members of LARBOs have been in the organization for years. Also, there are only a few LARBOs and membership to the organization are either saturated or closed to only households/farmers in the community or neighborhood. LARBOs also tend to select PARBOs or non-member beneficiaries of the program based on their track record of supplying outputs to the LARBO.

Moreover, alliance building or networking among ARBOs and between LARBOs and PARBOs is not common. Most ARBOs, including LARBOs are focused on sustainability of their own organizations and in strengthening interdependencies/coordination among members. In particular, about 78% of ARBOs in the identified CONVERGE provinces have to linkages with other farmer organizations (Table 7). Of the 11 LARBOs, 4 LARBOs have no linkages with other farmer organizations and 65 of the PARBOs (83%) in the area have no linkages and are not members of any secondary or tertiary farmer organizations. Six LARBOs are allied to other secondary or tertiary organizations, which are major organizations but the weak link of PARBOs to bigger organizations leaves out many PARBOs from the network.

Table 7. Linkages/Networks/Alliances of ARBOs in ConVERGE Provinces, 2017

Alliance	# of ARBOs	% Total	PARBO	LARBO
No linkage with other organizations	614	78.32	65	4
Has informal linkage with other secondary/tertiary organization	19	2.42	1	-
ARBO is a member of the secondary/tertiary organization	81	10.33	5	6
ARBO is a member, and accessed services from secondary/tertiary organization	54	6.89	6	-
ARBO is a member, accessed services from secondary/tertiary org, and has a representative in the BOD/committees	16	2.04	1	1
Total	784	100.00	78	11

Source: ITeMA 2018

*Author excluded new ARBOs defined as those in operation for one year or less

Notes: Primary organizations= Cooperatives and non-cooperatives whose members are classified as primary organizations

Secondary organizations= Typically known as federations and unions. These are also associations composed of primary organizations

Tertiary organizations= Organizations composed of secondary organizations and in some cases also accept primary organizations

6.2. Organizational Readiness of ARBOs

CONVERGE has a menu of value chain interventions such as inputs for production, equipment (e.g. stripping machines, weighing scale, shed house, etc.), physical infrastructures, learning/knowledge generation activities, computers software and hardware to aid for development of M&E, among others. These interventions are given as grants to target beneficiaries except for capital investments such as equipment, machines, physical infrastructures, etc., whereby the recipient ARBO is required to provide equity (either outright cash or the cost of maintenance). For physical infrastructures that benefits the community as a whole (roads, water system), the counterpart funding is usually provided by the LGU.

However, as indicated in earlier, most ARBOs are not organizationally mature. While the selected LARBOs are among the few ARBOs that have the organizational and financial capacity to undertake capital investments, this is not the case for most PARBOs. Among ARBOs in the CONVERGE areas, about 54% do not operationalized their organizational and financial policies, systems and procedures and only 3.6% fully implements their policies, systems and procedures (Table 8). Moreover, about 27% have no meetings conducted among officers and committees and only 2.8% follow the prescribed number of meetings and implement actions plans agreed upon in Executive and Committee meetings.

Similarly, among identified PARBOs under CONVERGE, 53% do not operationalized their policies, programs and procedures and only about 8% implements their policies, programs and

procedures (Table 9). There are higher proportion of PARBOs (54%) that conduct meetings among officers and committees but not on a regular basis and often *ad hoc*.

The distribution of ARBO capital also shows that capital or equity generated from members are limited. About 45% of the ARBOs in CONVERGE provinces have not collected any capital and more than one-third have capitalization amounting to less than P250,000 (Table 10). A similar situation is observed among PARBOs. Most members of ARBOs and PARBOs have not fully paid their required minimum equity shares to the organization (Table 11). Given these conditions, it would be difficult for ARBOs finance value adding activities especially those that require capital investments and to sustain their operations.

It is possible that a PARBO is mainly organized to receive the intervention. That is, the farmers self-organize because of the requirement of externally driven development project but the sustainability of the organization is not a main concern. It is most likely that group activities fade away at the end of the projects.

Low and declining membership is also an issue among ARBOs especially for PARBOs. The causes of low membership are death or old age as well as withdrawals of membership for different causes (Table 12). Death or old age of members implies a closed organization whereby new members are constrained by inability of the organization to reach out to other farmers. Withdrawal due to financial constraints has also been repeatedly mentioned as a cause for decline in membership. PARBOs also reorganized due to failure in the management. These aspects—i.e. decline in membership, the inability to recruit new members and frequent reorganization, and absence of capital build-up imply low sustainability of farmers' organization and possibly indifference of farmers to organize. This means that there are significant number of farmers that can be excluded from access to government programs and value chain.

Table 8. Organizational Management and Compliance of ARBOs in ConVERGE Areas

Province	Operational ARBOs and with valid data	Total	Vision, Mission, Goals, and Objectives					Strategic Development Plan, Annual Operations Plan, and Implementation Report			
			No VMGO or just 1 of the 4	ARBO has written VM	ARBO has written VMG or VMO	ARBO has written and posted VMGO	ARBO officers are able to explain/ articulate VMGO	Without or not updated SDP	With current SDP and current Annual Operations Plan	SDP with Annual Operations Plan being implemented	SDP with Annual Operations Plan being implemented, reviewed and succeeding operations developed
Zamboanga del Norte	100	100.0%	3.0%	0.0%	5.0%	0.0%	92.0%	38.0%	20.0%	6.0%	36.0%
Zamboanga del Sur	112	100.0%	1.8%	4.5%	8.0%	0.0%	85.7%	16.1%	23.2%	8.0%	52.7%
Zamboanga Sibugay	76	100.0%	9.2%	10.5%	6.6%	0.0%	73.7%	51.3%	21.1%	9.2%	18.4%
Bukidnon	117	100.0%	5.1%	1.7%	11.1%	0.0%	82.1%	47.0%	10.3%	9.4%	33.3%
Camiguin	17	100.0%	5.9%	11.8%	29.4%	0.0%	52.9%	17.7%	11.8%	17.7%	52.9%
Misamis Oriental	78	100.0%	1.3%	1.3%	21.8%	1.3%	74.4%	25.6%	20.5%	12.8%	41.0%
Agusan del Norte	68	100.0%	7.4%	1.5%	7.4%	0.0%	83.8%	57.4%	2.9%	8.8%	30.9%

Agusan del Sur	95	100.0%	7.4%	8.4%	20.0%	0.0%	64.2%	63.2%	4.2%	6.3%	0.8%
Surigao del Norte	62	100.0%	1.6%	3.2%	11.3%	6.5%	77.4%	24.2%	22.6%	8.1%	32.3%
Surigao del Sur	59	100.0%	3.4%	0.0%	5.1%	0.0%	91.5%	32.3%	23.7%	11.9%	36.0%
Total	784	100.0%	4.5%	3.7%	11.2%	0.6%	80.0%	39.0%	16.1%	8.9%	36.0%

Province	Operational ARBOs and with valid data	Total	Policies, Systems, and Procedures					Officers, Committees, Management Staff & Employees				
			No PSPs	With written PSPs on the ff: 1) Organizational (Membership and Recruitment) 2) Financial (set-up of Books of Accounts)	With written PSPs on all of the ff: 1) Organizational 2) Financial	With written on all and operationalized PSPs on 3 out of 5 of the ff: 1) Organizational 2) Financial	With written, operationalized in all of the ff: 1) Organizational 2) Financial	With OBD/Executive officers; All committees in By Laws formed but no meetings; Not all committees formed	With BOD/officers; all Committees in By Laws are formed; conducted meetings are less than the mandated number of meetings	With BOD/officers; all committees are formed; conducted regular meetings	With BOD/officers; all committees are formed; conducted regular meetings; action plans/ programs prepared	With BOD/officers; all committees are formed; conducted regular meetings; action plans prepared; programs implemented
Zamboanga del Norte	100	100.0%	30.0%	60.0%	2.0%	6.0%	2.0%	27.0%	42.0%	25.0%	5.0%	1.0%
Zamboanga del Sur	112	100.0%	19.6%	67.9%	0.0%	2.7%	9.8%	49.1%	25.9%	7.1%	8.0%	9.8%
Zamboanga Sibugay	76	100.0%	77.6%	18.4%	0.0%	2.6%	1.3%	56.6%	19.7%	21.1%	1.3%	1.3%
Bukidnon	117	100.0%	60.7%	32.5%	0.0%	0.9%	6.0%	6.0%	73.5%	18.8%	0.9%	0.9%
Camiguin	17	100.0%	76.5%	23.5%	0.0%	0.0%	0.0%	23.5%	64.7%	5.9%	0.0%	5.9%
Misamis Oriental	78	100.0%	48.7%	48.7%	1.3%	1.3%	0.0%	11.5%	66.7%	21.8%	0.0%	0.0%
Agusan del Norte	68	100.0%	76.5%	19.1%	0.0%	0.0%	4.4%	26.5%	44.1%	26.5%	1.5%	1.5%
Agusan del Sur	95	100.0%	70.5%	24.2%	0.0%	2.1%	3.2%	26.3%	40.0%	33.7%	0.0%	0.0%
Surigao del Norte	62	100.0%	66.1%	32.3%	1.6%	0.0%	0.0%	14.5%	62.9%	16.1%	0.0%	6.5%
Surigao del Sur	59	100.0%	52.5%	32.2%	5.1%	8.5%	1.7%	30.5%	52.5%	11.9%	1.7%	3.4%
Total	784	100.0%	54.1%	38.9%	0.9%	2.6%	3.6%	27.4%	47.6%	19.9%	2.3%	2.8%

Source: ITeMA 2018 data from DAR

*Author excluded new ARBOs defined as those in operation for one year or less

Table 9. Organizational Management and Compliance of PARBOs

Province	Operational ARBOs and with valid data	Total	Vision, Mission, Goals, and Objectives					Strategic Development Plan, Annual Operations Plan, and Implementation Report			
			No VMGO or just 1 of the 4	ARBO has written VM	ARBO has written VMG or VMO	ARBO has written and posted VMGO	ARBO officers are able to explain/ articulate VMGO	Without or not updated SDP	With current SDP and current Annual Operations Plan	SDP with Annual Operations Plan being implemented	SDP with Annual Operations Plan being implemented, reviewed and succeeding operations developed
Zamboanga del Norte	6	100.0%	0.0%	0.0%	0.0%	-	100.0%	16.7%	50.0%	16.7%	16.7%
Zamboanga del Sur	4	100.0%	0.0%	0.0%	0.0%	-	100.0%	0.0%	0.0%	0.0%	100.0%
Zamboanga Sibugay	10	100.0%	10.0%	20.0%	0.0%	-	70.0%	70.0%	0.0%	10.0%	20.0%
Bukidnon	11	100.0%	0.0%	0.0%	27.3%	-	72.7%	36.4%	27.3%	9.1%	27.3%
Camiguin	2	100.0%	0.0%	0.0%	0.0%	-	100.0%	0.0%	0.0%	50.0%	50.0%
Misamis Oriental	8	100.0%	0.0%	0.0%	25.0%	-	75.0%	25.0%	25.0%	12.5%	37.5%
Agusan del Norte	14	100.0%	7.1%	0.0%	7.1%	-	85.7%	50.0%	7.1%	14.3%	50.0%
Agusan del Sur	11	100.0%	9.1%	18.2%	9.1%	-	63.6%	45.5%	0.0%	18.2%	36.4%
Surigao del Norte	4	100.0%	0.0%	0.0%	0.0%	-	100.0%	0.0%	25.0%	25.0%	50.0%
Surigao del Sur	8	100.0%	0.0%	0.0%	12.5%	-	87.5%	12.5%	25.0%	0.0%	62.5%
Total	78	100.0%	3.9%	5.1%	10.3%	-	80.8%	34.6%	15.4%	12.8%	37.2%

Province	Operational ARBOs and with valid data	Total	Policies, Systems, and Procedures					Officers, Committees, Management Staff & Employees				
			No PSPs	With written PSPs on the ff: 1) Organizational (Membership and Recruitment) 2) Financial (set-up of Books of Accounts)	With written PSPs on all of the ff: 1) Organizational 2) Financial	With written on all and operationalized PSPs on 3 out of 5 of the ff: 1) Organizational 2) Financial	With written, operationalized in all of the ff: 1) Organizational 2) Financial	With OBD/Executive officers; All committees in By Laws formed but no meetings; Not all committees formed	With BOD/officers; all Committees in By Laws are formed; conducted meetings are less than the mandated number of meetings	With BOD/officers; all committees are formed; conducted regular meetings	With BOD/officers; all committees are formed; conducted regular meetings; action plans/ programs prepared	With BOD/officers; all committees are formed; conducted regular meetings; action plans prepared; programs implemented
Zamboanga del Norte	6	100.0%	16.7%	66.7%	0.0%	16.7%	0.0%	16.7%	50.0%	33.3%	-	0.0%
Zamboanga del Sur	4	100.0%	0.0%	50.0%	0.0%	0.0%	50.0%	25.0%	25.0%	0.0%	-	50.0%
Zamboanga Sibugay	10	100.0%	90.0%	10.0%	0.0%	0.0%	0.0%	30.0%	50.0%	20.0%	-	0.0%
Bukidnon	11	100.0%	45.5%	45.5%	0.0%	0.0%	9.1%	0.0%	90.9%	9.1%	-	0.0%

Camiguin	2	100.0%	50.0%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	-	50.0%
Misamis Oriental	8	100.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	87.5%	12.5%	-	0.0%
Agusan del Norte	14	100.0%	78.6%	14.3%	0.0%	0.0%	7.1%	7.1%	78.6%	7.1%	-	7.1%
Agusan del Sur	11	100.0%	54.6%	7.3%	0.0%	9.1%	9.1%	1.0%	45.5%	45.5%	-	0.0%
Surigao del Norte	4	100.0%	75.0%	25.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	-	0.0%
Surigao del Sur	8	100.0%	37.5%	37.5%	12.5%	0.0%	12.5%	12.5%	75.0%	12.5%	-	0.0%
Total	78	100.0%	53.1%	33.3%	1.3%	2.6%	7.7%	11.5%	64.1%	1.2%	-	5.1%

Source: ITeMA 2018 data from DAR

*Author excluded new ARBOs defined as those in operation for one year or less

Table 10. Distribution of ARBOs by Total Equity/Shares collected from Members

Amount of Equity/Shares	ARBOs in ConVERGE Provinces	PARBOs	LARBOs
0.00 or no CBU	45.28%	26.92%	0.00%
> Php 0.00 - 50,000.00	13.90%	20.51%	0.00%
> Php 50,000.00 - 250,000.00	18.75%	21.79%	27.27%
> Php 250,000.00 - 500,000.00	6.63%	11.54%	9.09%
> Php 500,000.00 - 1,000,000.00	6.12%	7.69%	27.27%
> Php 1,000,000.00	9.31%	11.54%	36.36%
Total	100.00%	100.00%	100.00%

Source: ITeMA 2018 data from DAR

*Author excluded new ARBOs defined as those in operation for one year or less

Table 11. Distribution of ARBOs by Proportion of Members with Fully Paid Equity/Shares

Proportion of Members with Fully Paid CBU	All ARBOs in ConVERGE Areas	PARBOs	LARBOs
0%	36.10%	21.79%	9.09%
>0% - 20%	14.92%	23.08%	18.18%
>20% - 50%	11.99%	12.82%	18.18%
>50% - 80%	13.39%	19.23%	27.27%
>80% - <100%	8.80%	14.10%	18.18%
100%	14.80%	8.97%	9.09%
Total	100.00%	100.00%	100.00%

Source: ITeMA 2018 data from DAR

*Author excluded new ARBOs defined as those in operation for one year or less

Table 12. Reasons for No Change or Decline in ARBO Membership

Reasons	Total # of Responses	%	PARBOs
Saturated	39	7.60	3

Withdrawal of membership due to financial constraints	32	6.24	3
Migration	46	8.97	1
Death / Old Age	131	25.54	10
Member is expelled due to violations/delinquencies	11	2.14	-
Removal of inactive members	62	12.09	5
ARBO Reorganization	19	3.70	4
Transferred to / Members of other organizations	37	7.21	4
Withdrawal of membership due to inability to participate in organizational meetings and activities	48	9.36	2
Withdrawal of membership due to conflict between officers and members / loss of confidence	5	0.97	-
Withdrawal of membership due to mismanagement of organization	4	0.78	-
Withdrawal of membership due to land-related issue	2	0.39	-
Others, specify	77	15.01	7
Total	513	100.00	39

Source: ITeMA 2018

*Author excluded new ARBOs defined as those in operation for one year or less

6.3. Conditions to Strengthen ARBOs

It is important to note that ARBOs maturity is not only linked to the existence of vision, mission, strategic plans and committees but to the type of organization and presence of entrepreneurial activities. Table 13 shows that ARBOs organize as cooperatives and operate in terms of the required systems, policies and procedures have higher maturity levels than those that are registered as farmer associations only. On the average, the ITeMA score of cooperatives is at 42.9 indicating Level 3 maturity. On the other hand, other organizations have average ITeMA scores of 20.9-24.7 indicating Level 2 maturity

Moreover, there is a positive correlation between organizational maturity and the number of entrepreneurial activities (Table 14). ARBOs with income generating business aside from agricultural production activities are likely to organizationally mature and are more sustainable. In particular, correlation is highest for entrepreneurial activities that involves credit and lending services to members. Credit and lending services provide members access to financing (an important coping mechanism in rural areas) as well as profits through interest payments and patronage refund.

Table 13. Average ITeMA Score of ARBOs in ConVERGE Provinces by Type of Organization

Region	Province	Cooperatives	Farmers' Association/ Organization	Irrigators Association	Water Users Association	Women's Association	Other type of Organization
Region IX	Zamboanga del Norte	44.07	30.39	20.76	13.83	21.48	-
	Zamboanga del Sur	47.83	27.26	34.36	28.51	21.16	-
	Zamboanga Sibugay	47.85	18.01	24.68	19.35	19.75	30.95
Region X	Bukidnon	40.45	24.55	21.49	-	13.18	-
	Camiguin	46.24	27.93	9.24	-	-	30.59
	Misamis Oriental	38.90	18.89	21.89	19.45	16.76	-
Region XIII	Agusan del Norte	46.31	21.43	27.86	21.28	33.10	-
	Agusan del Sur	41.92	18.47	24.24	30.22	41.48	-
	Surigao del Norte	47.54	36.20	15.48	-	-	-
	Surigao del Sur	37.57	14.37	18.27	26.13	10.11	21.54
Total		42.72	24.74	22.79	23.88	20.93	29.00

Source: ITeMA 2018

Table 14. Correlation of ITeMA score with Type of Entrepreneurial Activity

ITeMA Score	ConVERGE Regions	ConVERGE Provinces/ Areas	PARBOs
Trade Services	0.41	0.43	0.51
Production	0.19	0.20	0.34
Credit/Lending Services	0.55	0.55	0.39
Operation of Common Service Facilities (CSF)	0.31	0.35	0.71
Irrigation/Utilities Services	-0.04	-0.03	0.10
Non-Food Manufacturing	0.27	0.32	0.39
Food Processing/Service	0.01	0.05	-
Other Entrepreneurial Services	0.13	0.16	-0.37
All enterprises	0.56	0.61	0.72

Source: ITeMA 2018

**Observations are too few for LARBOs*

7. Conclusions and Policy Recommendations

For small scale agriculture, farmer organizations are important to enable smallholders to participate in value chain. Studies have shown that farmers membership in cooperatives is closely associated with their participation in the value chain. Moreover, farmers themselves find positive returns from membership in farmer organizations since it lowers their transaction costs, assists them in getting better contract offers from buyers than when they individually act on their own, and enable them to access resources and skills training.

The role of ARBOs in value chain depends on the crop and functions along the value chain. In general, value adding activities at the production level are undertaken by farmers individually and farmer organizations are formed mainly to gain access to inputs and technology that are cascaded through farmer organizations. However, the ARBOs tend to be loosely organized and may become inactive or reorganized after access has been achieved.

ARBOs become more relevant as farmers move to higher level of the value chain, in particular, participating in postharvest and marketing activities. These activities require farmers to pool their resources together to enable them to consolidate outputs and invest in facilities and equipment that individually they are constrained to undertake. Participation in higher value chain requires entrepreneurial development and an organization to manage the enterprise. Thus, ARBOs should have a high level of organizational maturity and are financially capable to do so.

However, most ARBOs in the country are organizationally weak; even among those registered as cooperatives. The failure of many farmer organizations to be viable has stifled the interests of smallholders to join or form farmer organizations and thus reduce their participation in higher value chain. Based on DAR's ITEMA scores, only 10% of the ARBOs in the country are classified with the high maturity level; about 46% have low organizational maturity while the rest have mid-level maturity. In particular, many PARBOs identified under the CONVERGE areas are not organizationally functional. A significant number do not practice capital build-up and savings mobilization thus sustainability is also of a concern. Low and declining membership has also been observed among ARBOs caused by withdrawal of membership, inability to attract new members and mismanagement. This pattern of engagement and disengagement of farmer organizations also implies that adoption of technologies, enterprise development and other value adding initiatives may not be sustained. It is possible that organizations are formed mainly to access funding and most likely group activities fade away at the end of the project.

On the other hand, organizations with higher level of maturity may not be able to absorb new members. While there is weak correlation between ARBO size and maturity level, many farmer organizations are of the closed type, whereby membership is confined to households in the community or neighborhood. The organizational realities of ARBOs suggest that smallholder participation in value chain is limited and the gains from value chain initiatives may have impact on a modest percentage of the farming population.

Strengthening ARBOs is critical to the participation of smallholders especially to higher value chain. The sustainability of these organizations is closely associated with increased benefits to farmers of value chain initiatives. While many programs include capacity building and enterprise development activities, there is a need to review how these activities are conducted. Capacity building programs should result in the following: one, enabling farmer members to commit to the organization through equity participation; and two, enabling farmer organizations to establish enterprises that will generate income for members. As shown in the findings, there is a positive correlation between organizational maturity and number of entrepreneurial activities specifically enterprises relating to credit and lending services. Membership to farmer organizations can be built based on entrepreneurial activity rather than community-based organizations. Lastly, it is expected that organizations need some time to develop. The "big brother" strategy, whereby mature/lead farmer organizations give support to new organizations, works when there are strong alliances or linkages among farmer

organizations. Thus, there is also a need to capacitate farmer organizations on building alliances/networking not only among farmer organizations but other stakeholders as well.

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9. Appendices

Appendix A. ITEMA Maturity levels and Explanation of Indicators and ITEMA scores

KEY RESULT AREA AND INDICATOR		Weights
		2018 ITeMA
<i>I. ORGANIZATIONAL MANAGEMENT</i>		40
1	VMGO	3
2	Strategic Development Plan (SDP)	5
3	Policies, Systems and Procedures (PSP)	5
4	Total membership	3
5	Percent of ARB members to total membership	4
6	Recruitment of new ARB members	4
7	Functionality of BOD / Executive Officers and Committees	3
8	Participation of women in BOD / Executive Officers and Committees	1
9	Attendance to general membership meetings and key organizational activities	3
10	Attendance of officers and management staff to relevant trainings	4
11	Attendance to membership education seminars (MES)	2
12	Compliance to requirements of regulatory agencies	3
<i>II. RESOURCE MANAGEMENT</i>		20
13	Participation to resource mobilization (CBU/ capital contribution)	4
14	Increase in CBU / share capital / annual dues	4
15	Participation to savings mobilization	4
16	Increase in savings collection	4
17	Employment of core management team (Manager, Cashier, Treasurer, Bookkeeper, Accountant)	4
<i>III. SOCIAL ENTERPRISE/BUSINESS OPERATIONS</i>		13
18	Number of enterprises operated	4
19	Policies, Systems and Procedures (PSP) for enterprises	4
20	Volume of business enterprise	5
<i>IV. FINANCIAL PERFORMANCE</i>		20
21	External loan repayment	3
22	Return on equity (ROE)	4
23	Return on assets (ROA)	4

KEY RESULT AREA AND INDICATOR		Weights
		2018 ITeMA
24	Debt-equity ratio	3
25	Liquidity ratio (Current ratio)	3
26	Interest on share capital and patronage refund	3
V. ALLIANCE BUILDING, SOCIAL AND ENVIRONMENT RESPONSIBILITY		7
27	Participation / sectoral representation in local development councils	2
28	Membership in secondary and tertiary organizations	2
29	Disaster risk reduction management (DRRM)	1
30	Climate change adaptation (CCA)	1
31	Contribution to community development	1
TOTAL		100

Source: Table from DAR's 2018 ITeMA Report for ARBOs Volume I

Appendix B. List of PARBOs

PARBOs engaged in the supply of rubber cup lumps to the rubber value chain	
	Zamboanga Sibugay:
1	Sta. Maria Agrarian Reform Beneficiaries Cooperative
2	Godod Farmers Multipurpose Cooperative
3	Mauswagong Agrarian Reform Beneficiaries Association
4	Dinuan Agrarian Reform Beneficiaries Cooperative
5	Camul Agrarian Reform Beneficiaries Multipurpose Cooperative
	Zamboanga del Norte:
1	Jo Rubber Agrarian Reform Beneficiaries Cooperative
2	Marsulo Sta. Clara Beneficiary Multi-Purpose Cooperative
3	Naga Parish Multi-Purpose Cooperative
4	Sulo Agrarian Reform Beneficiaries Multi-Purpose Cooperative
5	Sanghanan Rubber Farmers Association
6	Simbol Rubber Farmers Association
7	Culasian Supit Agrarian Reform Beneficiaries Cooperative
8	Masao Rubber Farmers Association
9	Lumbia Rubber Planters Association
10	Magsaysay Farmers Association
11	Pegsalabokan Tilasan Association
12	Silingan Rubber Farmers Association
13	Malagandis Rubber Farmers Association
14	Small Water Impounding System Association

15	Palomoc Agrarian Reform Beneficiaries Multipurpose Cooperative
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B. PARBOs engaged in the sale of palay to the rice value chain in Zamboanga del Sur	
	Zamboanga del Sur
1	Upper Dimorok Agrarian Reform Beneficiaries Cooperative
2	Manlabay, Maralag, Timonan, Libertad, Basak Farmer Integrated Agrarian Multi-Purpose Cooperative
3	Gabunon Agrarian Reform Beneficiaries Cooperative
4	Campo IV Campo Beneficiaries Farmers Multi-Purpose Cooperative
5	Tagulalo Agrarian Reform Farmers Irrigators Association

C. PARBOs engaged in the sale of cassava chips to the cassava value chain	
	North Bukidnon
1	KADUMA APC
2	Laturan Agri-producers Association (LAPASS)
3	Sto. Niño Farmer's Association
4	Saint Michael Manolo Fortich Farmers Association Inc.
5	Lunocan ARB Primary Multi-Purpose Cooperative
6	San Jose Multi-Purpose Cooperative
7	Capihan Multi-Purpose Cooperative
8	Nangka Multi-Purpose Cooperative

D. PARBOs engaged in the sale of sugarcane to the Muscovado Sugar value chain	
	South Bukidnon
1	MAKAFCO
2	Kadingilan Pay-as Agrarian Reform Beneficiaries Association
3	Pocopoco Salt Farmers Association
4	Old Kibawe Multipurpose Cooperative
5	Labuagon Multipurpose Cooperative
6	Balangigay Service Cooperative
7	Kitobo Multipurpose Cooperative
8	KKSFO
9	BFI Employees Agrarian Reform Cooperative

E. PARBOs engaged in the sale of coco sap to the Coconut Sugar value chain	
	Misamis Oriental
1	Samay Multi-purpose Cooperative
2	Yungod Farmers' CARP Beneficiaries Multi-purpose Cooperative
3	Sugbongcogon Agrarian Reform Beneficiaries Multi-purpose Cooperative
4	Banglay Farmers' Credit Cooperative
5	Valdeconcha Farmers Multi-purpose Cooperative
6	Nagkahiusang Mag-uuma sa San Juan Multi-purpose Cooperative
7	Suarez Farmers' Agrarian Reform Cooperative

8	Guinalaban Farmers Multi-Purpose Cooperative
9	Nagkahiusang Miembro sa Mag-uumang Kapunungan Umagosnon Multi-purpose Cooperative

F. PARBOs engaged in the sale of abaca fiber to the Abaca value chain in Camiguin

	Misamis Oriental - Camiguin
1	Nagkahiusang Miembro sa Mag-uumang Kapunungan Umagosnon Multi-purpose Cooperative*
2	Guinalaban Farmers Multi-Purpose Cooperative*
3	Nagpakabana Multi-Purpose Cooperative
4	Bonbon Sagay Upland Farmers' Cooperative

**Also included in Misamis Oriental*

G. PARBOs engaged in the sale of palay to the Abaca value chain in Agusan del Norte

	Agusan del Norte
1	Bangonay Developers & Farmers Association
2	Kitcharao Jabonga Santiago Tubay Mamanwa Manobo Hill
3	LA FRATERNIDAD FARMERS ASSOCIATION
4	Libas Farmers Multi-Purpose Cooperative
5	Samahan ng mga Kababaehan at Mangingisda sa Binuangan
6	Maraiging Forestland Management Cooperative
7	Kapunungan Ng Mangisda At Magsasaka
8	Sangay People and Resource Management Association
9	Santo Niño Agrarian Reform Beneficiaries Association
10	Small Coconut Farmers Multi-Purpose Cooperative
11	Tagbuaya Farmers Association
12	Bangayan Lakeview Association
13	Baliguian Organic Farmer Irrigators Association
14	Canaway-Mamanwa Farmers Association Inc.
15	Cadahondahonan Agrarian Reform Beneficiaries Solar Home Association
16	Cabayawa-Sala Farmers Association
17	Cuyago Farmers Association
18	Dona Rosario CLOA Holders & Vegetable Producers Association
19	Hinimbangan Farmers Association
20	Jaliobong Masipag Farmers Organization Agrarian Reform Beneficiaries Cooperative
21	Jaliobong Irrigators Services Association
22	Malambuog Kausa sa Kababayan-an sa San Isidro
23	Magdagooc Agrarian Reform Beneficiaries and Fisherfolks Association
24	Pangaylan Agrarian Reform Cooperative

H. PARBOs engaged in the sale of palay to the Rice value chain in Agusan del Sur

	Agusan del Sur
1	Awao Agrarian Reform Beneficiaries Association
2	API-Agrarian Reform Beneficiaries Mutipurpose Cooperative
3	Bunawan Brook Agrarian Reform Beneficiaries Association
4	Kahiusahan sa Malahutayong mga Mag-uuma Para sa Ekonomikanhong Kalambuan, Inc.

5	Nagkahiusang Mag-uuma Alang sa Repormang Kalambuang Agraryo
6	Libertad Agrarian Reform Beneficiaries Farmers Association
7	Tagcoong - Angas Irrigators Association
8	Tudela Damsite Tribal Development Cooperative
9	Sayon Organic Farmers Association
10	Sayon Agrarian Reform Beneficiaries Multipurpose Cooperative
11	Sta. Isabel - Patrocinio Calamansi Growers Multipurpose Cooperative
12	Sta. Josefa Agusan del Sur Union of Farmers Association
13	La Fortuna Multipurpose Cooperative
14	Bong Agrarian Reform Beneficiaries Multipurpose Cooperative
15	Veruela Poblacion Agrarian Reform Beneficiaries Cooperative
16	Coronon Creek Irrigators Association
17	Hagnaya Agro-Fishery Association

Table 9: PARBOs engaged in the sale of coconut husk for the coconut and bio-fertilizer value chains

	Surigao del Norte
1	Daywan Agrarian Reform Beneficiaries Organization
2	Cawayan Agra Farmers Cooperative (CAFACO)
3	Payapag Integrated Farmers Association
4	Cabugao First Farmers Consumers Cooperative
5	San Isidro Multi-purpose Cooperative
6	Kababayan-an sa Panatao Producers Cooperative

J. PARBOs engaged in the sale of coffee beans for the value chain

	Surigao del Sur
1	Batunan Farmer Multi-Purpose Cooperative (BFMPC)
2	Malixi Agrarian Reform Beneficiaries Cooperative (MARBECO)
3	Nagkahiusang Mag-Uuma sa Guinhalinan Development Cooperative
4	Barangay Villaverde Coffee Growers Cooperative
5	Tagbina Agrarian Reform Beneficiary Multi-Purpose Cooperative
6	Progressive Agrarian Reform Beneficiary Cooperative
7	Tagbina Rural Improvement Club Producers' Cooperative
8	Ugoban Multi-Purpose Cooperative
9	San Roque Cooperative

Source of List: PIDS Baseline Study for the ConVERGE Project