

# Implementation of Agrarian Reform Community Connectivity and Economic Support Services Project and Empowerment of Agrarian Reform Organizations

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## ABSTRACT

This study assessed the extent of implementation of the Agrarian Reform Community Connectivity and Economic Support Services (ARCESS) Project among Agrarian Reform Beneficiary Organizations (ARBOs) in Camiguin Province and identified the operational challenges experienced by members. A quantitative descriptive survey design was employed. The respondents were 335 agrarian reform beneficiaries who were members of ARBOs in Mambajao, Mahinog, Guinsiliban, Sagay, and Catarman. A validated and pilot-tested questionnaire was used; its reliability coefficient was Cronbach's alpha = 0.81. Frequency counts and percentages described the respondents' profile, weighted mean and standard deviation measured the extent of implementation, an independent-samples t-test and one-way analysis of variance tested differences across demographic groups, and

ranking identified operational challenges. The ARCESS Project was implemented to a high extent (total average weighted mean = 3.74; SD = 0.46). Its strongest areas were support for sustainable ARBO activities (WM = 3.98), development of officers' skills (WM = 3.97), and livelihood or income-generating activities (WM = 3.97). No significant differences were found when implementation was assessed according to sex, age, household size, or municipal affiliation. Low cooperation among members in operational tasks emerged as the most pressing concern. The findings support continued technical assistance, transparent resource allocation, stronger member participation, and closer coordination among DAR, LGUs, and ARBOs.

**Keywords:** *ARCESS Project, agrarian reform beneficiary organizations, rural development, organizational empowerment, agricultural support services, Camiguin Province*

## INTRODUCTION

The Agrarian Reform Community Connectivity and Economic Support Services (ARCESS) Project is a support-services initiative of the Department of Agrarian Reform (DAR) designed to strengthen agrarian reform beneficiaries and their organizations after land distribution. It provides interventions that link agricultural production with enterprise development, common service facilities, technical support, and value-chain participation. This approach recognizes that access to land alone does not automatically result in sustainable livelihoods; beneficiaries also require functioning organizations, productive assets, and reliable links to markets and institutions (Department of Agrarian Reform [DAR], 2015; DAR, n.d.).

Agrarian Reform Beneficiary Organizations (ARBOs) play a central role in translating support services into local economic outcomes. When organizations can manage shared resources, coordinate member participation, and connect with buyers and institutional partners, they are better positioned to improve productivity and sustain enterprise activities. Studies on ARBO value-chain participation emphasize the importance of

organizational maturity, external alliances, and long-term planning, while research on agricultural financing underscores the value of linking credit with production and market arrangements (Ballesteros & Ancheta, 2021; Bayudan-Dacuycuy et al., 2022).

In Camiguin Province, ARCESS is particularly relevant because ARBOs operate within an island economy where smallholder agriculture, transport costs, and limited market access affect enterprise sustainability. The program provides an opportunity to strengthen local organizations while addressing practical constraints related to farm productivity, technical assistance, resource utilization, and market linkage. However, program implementation must be assessed from the perspective of beneficiaries to determine whether services are reaching members consistently and whether persistent operational difficulties remain.

This study assessed the extent of ARCESS implementation among ARBOs in Camiguin Province. Specifically, it described respondents according to sex, age, household size, and municipal affiliation; determined the extent of project implementation; tested whether assessments varied across demographic groups; and identified the challenges encountered in project operations. The findings provide an evidence base for improving service delivery, organizational governance, and the sustainability of ARBO-led initiatives.

## Literature Review

### *ARCESS implementation and value-chain participation*

ARCESS represents a shift from a land-distribution-centered approach toward a broader rural development strategy. Its interventions combine productive assets, organizational support, enterprise development, and institutional linkages. DAR's implementation framework positions ARBOs as channels through which beneficiaries can gain access to services, coordinate farm activities, and build market-oriented enterprises (DAR, 2015; DAR, n.d.). This is consistent with value-chain approaches that seek to move farmer organizations beyond primary production toward processing, marketing, and more stable commercial relationships.

Ballesteros and Ancheta (2021) found that ARBO participation in agricultural value chains is affected by organizational maturity and the strength of alliances with external actors. Their related examination of Project ConVERGE also highlights the importance of coordinated investments and long-term value-chain planning (Ballesteros & Ancheta, 2022). Financing is equally important. Bayudan-Dacuycuy et al. (2022) argue that smallholder financing becomes more sustainable when it is linked with production and market arrangements rather than treated as an isolated credit intervention.

Local enterprise initiatives reinforce the relevance of these approaches. Maghirang et al. (2022) show how cooperative-led green value-chain development can improve coordination from farm inputs to markets, while Miano et al. (2025) document the potential of community-based enterprises in agrarian reform communities. Together, these studies suggest that productive assets generate stronger benefits when they are supported by training, governance mechanisms, and market integration.

### *Organizational empowerment and governance*

Empowerment within ARBOs is multidimensional. It includes the ability to manage resources, participate in decision-making, sustain collective activities, and establish partnerships beyond the organization. The World Bank (2006) describes empowerment as expanding the capacity of individuals and groups to make purposeful choices and translate those choices into desired actions and outcomes. In the context of agrarian reform, organizational empowerment is reflected in members' participation, officers' leadership capacity, transparency, accountability, and the ability to continue operations after initial support is provided.

Internal governance affects whether common facilities and enterprise initiatives remain functional. Mercado et al. (2021) emphasize the importance of managerial training and productive assets in bridging the gap between land ownership and agricultural productivity. Cruz and Ramos (2020) likewise identify governance, organizational readiness, and sustained mentoring as factors that influence the ability of rural cooperatives to benefit from ARCESS interventions. These findings imply that technical resources alone are insufficient when participation and internal management systems are weak.

External institutional support also matters. The sustainability of ARBOs depends on coordination among DAR, local government units, financial institutions, and other service providers. Bautista and Mercado (2021) stress that institutional support contributes to beneficiary empowerment, while Scott's (2001) institutional perspective explains how organizations gain stability when their structures align with formal requirements and shared norms. For ARBOs, this alignment can improve access to training, credit, certification, and market opportunities.

#### ***Technical assistance, facilities, and sustainability***

Common service facilities and technical support are intended to improve efficiency and reduce constraints in production and post-harvest activities. However, successful utilization depends on appropriate equipment, trained operators, preventive maintenance, and timely technical guidance. Mercado et al. (2021) note that equipment provision may improve productivity while also creating operational challenges when facilities are not fully matched with local conditions or when organizations have limited capacity to manage them.

Sustainability requires support beyond initial turnover. The Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA, 2022) emphasizes the need for continued mentoring and organizational support for ARBO-managed enterprises. The Philippine Institute for Development Studies (PIDS, 2023) similarly identifies the value of monitoring, market linkage, and organizational sustainability. These concerns are especially important in geographically constrained settings where logistical barriers can affect access to services and markets.

Credit and risk management mechanisms can complement technical interventions. Credit facilitation under ARCESS is intended to support enterprise operations, while agri-insurance helps protect beneficiaries against production risks (Land Bank of the Philippines & DAR, n.d.; Philippine Crop Insurance Corporation & DAR, n.d.). These mechanisms reinforce the principle that sustainable agrarian reform requires a combination of productive, institutional, technical, and financial support.

#### ***Challenges in implementation***

Implementation gaps may occur when organizational systems, inter-agency coordination, and monitoring mechanisms are weak. The Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC, 2021) identifies implementation challenges in rural development programs, including coordination and sustainability concerns. DAR (2020) likewise documents the continuing need to improve program implementation and support mechanisms. These concerns are relevant to ARBOs because delays, unclear responsibilities, and limited follow-up can reduce the benefits of project interventions.

Policy coherence also affects long-term performance. Sanchez (2020) argues that institutional mechanisms and policy alignment influence whether agrarian reform support programs can sustain enterprise development. PIDS (2023) notes that organizational sustainability depends on effective monitoring and continuing support. These studies point to the need for locally grounded assessments that identify both areas of strength and operational concerns experienced by beneficiaries.

The reviewed literature indicates that ARCESS outcomes depend on interconnected factors: effective service delivery, organizational governance, member participation, technical capacity, and institutional coordination. This study applies these insights to ARBOs in Camiguin Province by examining the extent of implementation and the challenges encountered in daily operations.

## **METHODS**

### **Research Design**

The study employed a quantitative descriptive survey design. This design was appropriate because it enabled the researcher to collect numerical data and describe the respondents' assessments of ARCESS implementation and the operational challenges encountered by ARBOs without manipulating any variables.

### **Research Locale**

The study was conducted in Camiguin Province, Northern Mindanao, Philippines. The province is composed of five municipalities: Mambajao, Mahinog, Guinsiliban, Sagay, and Catarman. The study focused on ARBOs operating in these municipalities because they are recognized beneficiaries and local implementers of ARCESS-related support activities.

### **Participants and Sampling Technique**

The respondents were 335 agrarian reform beneficiaries who were members of ARBOs in the five municipalities of Camiguin Province. The source manuscript reported a total population of 2,031 ARBO members. The sample size was determined using Slovin's formula at a 95% confidence level and a 5% margin of error. Respondents were distributed across municipalities as follows: Mambajao, 76; Mahinog, 106; Guinsiliban, 14; Sagay, 89; and Catarman, 50.

### **Research Instrument**

The study used an adapted and modified survey questionnaire based on DAR-related agrarian reform and organizational performance indicators. The instrument covered the respondents' demographic profile, the extent of ARCESS implementation, and challenges encountered in project operations. Three experts from the DAR Provincial Office of Camiguin reviewed the questionnaire for clarity, relevance, coherence, and alignment with the objectives. A pilot test involving 30 ARB members who were not included in the final sample yielded a Cronbach's alpha coefficient of 0.81, indicating acceptable reliability.

### **Data Gathering Procedure**

After the questionnaire had been validated and pilot-tested, permission to conduct the study was secured from the concerned local government units. Coordination was undertaken with municipal offices, barangay officials, and ARBO officers regarding the schedule, venue, and identification of respondents. Consent forms were distributed before the survey administration. The researcher personally administered the questionnaires, clarified instructions, when necessary, retrieved the completed forms, checked the responses for completeness, and organized the data for analysis.

### **Data Analysis**

Frequency counts and percentages were used to describe the respondents' demographic profile. Weighted mean and standard deviation were used to determine the extent of ARCESS implementation. An independent-samples t-test examined differences according to sex, while one-way analysis of variance tested differences according to age, household size, and municipal affiliation. The level of significance was set at 0.05. Ranking was used to identify the operational challenges reported by ARBO members.

### **Ethical Consideration**

Participation was voluntary. Respondents received consent forms and were informed about the purpose of the study and their right to discontinue participation. Names were not required on the survey questionnaire. The data were treated confidentially and used solely for academic purposes.

## RESULTS AND DISCUSSION

### Profile of the Respondents

Table 1 presents the demographic profile of the 335 respondents. Most respondents were male (65.07%). The largest age group was 40-49 years (39.10%), followed by 50-59 years (34.93%). Most respondents belonged to households with seven or more members (60.00%). Mahinog contributed the largest group of respondents (31.64%), followed by Sagay (26.57%). These figures describe the composition of the participating ARBO members and provide the basis for examining whether implementation assessments differed across groups.

Table 1. *Profile of the Respondents (N = 335)*

Variable	Category	Frequency	Percentage (%)
Age	30-39	87	25.97
Age	40-49	131	39.10
Age	50-59	117	34.93
Sex	Male	218	65.07
Sex	Female	117	34.93
Household Size	1-3	45	13.43
Household Size	4-6	89	26.57
Household Size	7 and above	201	60.00
Municipal Affiliation	Mambajao	76	22.69
Municipal Affiliation	Mahinog	106	31.64
Municipal Affiliation	Guinsiliban	14	4.18
Municipal Affiliation	Sagay	89	26.57
Municipal Affiliation	Catarman	50	14.93

### Extent of ARCESS Implementation

The ARCESS Project was implemented to a high extent, with a total average weighted mean of 3.74 and an overall standard deviation of 0.46. The highest-rated indicator was support for sustainable ARBO activities (WM = 3.98; SD = 0.13). This was followed by the development of ARBO officers' skills, support for livelihood or income-generating activities, and strengthening of the organization (WM = 3.97 for each indicator). These results show that respondents recognized the project's contribution to organizational continuity, officer capacity, and livelihood support.

The relatively lower ratings were recorded for the provision of support services (WM = 3.39; SD = 0.49), introduction of farm-related interventions (WM = 3.39; SD = 0.49), and provision of technical assistance (WM = 3.37; SD = 0.51). Although these indicators remained within the high-extent category, their lower values point to areas where timely, locally responsive, and sustained assistance may still be improved. This interpretation is consistent with studies emphasizing that value-chain participation and enterprise development require both organizational capacity and continuing technical support (Ballesteros & Ancheta, 2021; Mercado et al., 2021; SEARCA, 2022).

Table 2. *Extent of ARCESS Implementation Among ARBOs*

Indicators	Weighted Mean	SD	Description
Supporting sustainable ARBO activities	3.98	0.13	High Extent
Developing the skills of ARBO officers	3.97	0.22	High Extent
Supporting livelihood or income-generating activities	3.97	0.22	High Extent
Strengthening the ARBO organization	3.97	0.22	High Extent
Promoting cooperation among ARBO members	3.96	0.29	High Extent
Monitoring and following up project activities	3.95	0.34	High Extent
Ensuring benefits reached most ARBO members	3.84	0.37	High Extent

Orienting and informing ARBO members	3.83	0.40	High Extent
Improving leadership and management of officers	3.83	0.40	High Extent
Addressing problems encountered by the ARBO	3.83	0.44	High Extent
Coordinating with ARBO officers and members	3.77	0.44	High Extent
Responding to the needs of the ARBO	3.76	0.45	High Extent
Overall project implementation effectiveness	3.74	0.46	High Extent
Improving farm productivity	3.66	0.49	High Extent
Improving access to markets	3.66	0.51	High Extent
Conducting training activities	3.65	0.50	High Extent
Developing the skills of ARBO members	3.65	0.51	High Extent
Providing support services	3.39	0.49	High Extent
Introducing farm-related interventions	3.39	0.49	High Extent
Providing technical assistance	3.37	0.51	High Extent
Total Average Weighted Mean	3.74	0.46	High Extent

### Differences in Implementation Across Demographic Groups

The t-test showed no significant difference in the extent of ARCESS implementation when respondents were grouped according to sex ( $t = 0.71$ ,  $df = 333$ ,  $p = 0.478$ ). Since the p-value was higher than the 0.05 level of significance, the null hypothesis was not rejected. This finding indicates that male and female respondents gave comparable assessments of project implementation.

Table 3. *Independent-Samples t-Test Result According to Sex*

Profile	t-value	df	p-value	Decision
Sex	0.71	333	0.478	Fail to reject Ho

The one-way ANOVA results also showed no significant differences according to age ( $F = 0.168$ ,  $p = 0.845$ ), household size ( $F = 2.210$ ,  $p = 0.095$ ), and municipal affiliation ( $F = 1.389$ ,  $p = 0.230$ ). The findings indicate that assessments of implementation were generally consistent across demographic and geographic categories. The absence of statistically significant differences suggests a relatively uniform delivery of ARCESS activities among the participating ARBO members.

Table 4. *One-Way ANOVA Results According to Age, Household Size, and Municipal Affiliation*

Variable	F-value	p-value	Decision
Age	0.168	0.845	Fail to reject Ho
Household Size	2.210	0.095	Fail to reject Ho
Municipal Affiliation	1.389	0.230	Fail to reject Ho

### Operational Challenges Encountered by ARBOs

The ranking of operational challenges indicates that low cooperation among ARBO members in operational tasks was the most pressing concern reported by respondents. This issue may affect task-sharing, coordination, and collective decision-making. It was followed by difficulty in addressing operational problems and perceived unequal distribution of resources or benefits. These concerns show that organizational empowerment depends not only on the delivery of resources but also on internal participation, transparent governance, and responsive problem-solving mechanisms.

The results are consistent with the view that rural organizations require active member participation and accountable management systems to sustain collective initiatives. Organizational maturity, institutional linkages, and continued mentoring help ARBOs utilize support services more effectively and maintain operations over time (Ballesteros & Ancheta, 2021; Cruz & Ramos, 2020; PIDS, 2023). Strengthening cooperation and transparency is therefore necessary even when the overall extent of project implementation is high.

Table 5. *Challenges Encountered in ARCESS Operations*

Indicators	SD	Rank
Low cooperation among ARBO members in operational tasks	11.02	20
Difficulty in addressing problems encountered during operations	10.99	19
Unequal distribution of resources or benefits among members	10.80	18
Limited improvement in farm productivity despite project support	10.77	17
Difficulty in accessing markets for ARBO products	10.74	16
Weak organizational management affecting daily operations	10.67	14.5
Insufficient training for operational tasks	10.67	14.5
Difficulty sustaining project benefits after activities are completed	10.58	12.5
Limited access to farm equipment or facilities	10.58	12.5
Inadequate technical assistance for daily operations	10.55	11
Delays in delivery of project inputs or resources	10.50	10
Difficulty addressing operational problems (second reported item)	10.40	9
Difficulty sustaining livelihood or income-generating activities	10.30	8
Delays in monitoring and follow-up	10.28	7
Limited financial resources for daily operations	10.27	6
Limited skills or capacity of officers	10.25	5
Limited participation of members in daily activities	10.24	3.5
Poor coordination between members and implementers	10.24	3.5
Overall operational challenges affecting success	10.23	2
Limited responsiveness to actual ARBO needs	9.91	1

## CONCLUSION

The ARCESS Project was implemented to a high extent among the surveyed ARBOs in Camiguin Province. Respondents particularly recognized the project's support for sustainable organizational activities, development of officers' skills, strengthening of ARBOs, and promotion of livelihood or income-generating activities. Although technical assistance, farm-related interventions, and support services were also rated positively, these areas received comparatively lower scores and require continuing attention.

Implementation assessments did not differ significantly according to sex, age, household size, or municipal affiliation. This result indicates that the surveyed members experienced a generally consistent level of project implementation across demographic and geographic groups. However, low cooperation among ARBO members in operational tasks remained the most pressing challenge. The findings demonstrate that effective project delivery must be accompanied by stronger participation, responsive technical assistance, transparent resource management, and continuing institutional coordination.

## Recommendations

DAR may strengthen the continuity and responsiveness of technical assistance by providing regular follow-up, hands-on guidance, and locally appropriate interventions for ARBO members. Project implementers may also reinforce systems for monitoring the delivery and use of inputs, facilities, and other support services.

LGUs may coordinate closely with DAR and ARBO officers to address logistical constraints, improve local market linkage, and align interventions with the needs of island municipalities. Joint monitoring activities may help identify implementation issues early and improve the delivery of support services.

ARBO officers may strengthen internal governance by promoting active participation, transparent allocation of resources, regular consultation, and clear task-sharing among members. Capacity-building activities should include leadership development, conflict resolution, participatory planning, and organizational accountability. Future researchers may examine ARBO empowerment using additional qualitative methods, organizational performance indicators, and longitudinal designs. Further studies may also investigate how market access, equipment utilization, technical assistance, and organizational maturity influence the sustainability of ARBO enterprises across different provinces.

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