EXECUTIVE SUMMARY

This report presents the results of the impact evaluation conducted on the Agrarian Reform Infrastructure Support Project – Phase III (ARISP-III) which was implemented in the provinces of Biliran and Southern Leyte. The ARISP-III was an integrated development project implemented by the Department of Agrarian Reform (DAR) in collaboration with the Local Government Units (LGUs), National Irrigation Administration (NIA), Department of Public Works and Highways (DPWH), Department of Trade and Industry (DTI), Department of Agriculture (DA), and Technical Assistance Partner Institutions/Individuals (TAPIs). The project was funded by the Official Development Assistance (ODA) under the Government of Japan (GoJ), through the Japan International Cooperation Agency (JICA).

The impact evaluation was done to attain the following objectives: (1) evaluate the achievement of the project's development objectives; (2) assess the benefits and gains and the impact of the project to the beneficiaries; (3) evaluate the effectiveness of the sustainability mechanism that was put in place; (4) develop a comprehensive impact evaluation framework and methodology to examine the relationship of the inputs, activities, outputs and outcomes of the projects to its impacts; and (5) identify and document innovative and effective approaches and strategies, including the lessons learned in the implementation of the project that could be adopted in the design or implementation of similar or relevant interventions in the future.

Mapping project inputs to project benefits was done following a modified impact assessment framework of Davis *et al*. (2008). Both primary and secondary data were utilized. Primary data were collected through focus group discussions with both project implementers and beneficiaries, key informant interviews, site visitation/ocular inspection, and in-depth survey of both project beneficiaries and non-beneficiaries across provinces using a pre-tested interview schedule. The non-beneficiaries served as the control group/counterfactual. A total of 228 ARISP-III beneficiaries and 150 nonbeneficiaries were included in the survey. From these respondents, 70 beneficiaries and 54 non-beneficiaries were randomly selected samples who participated in providing input-output data and other information *before* the ARISP-III implementation.

Innovative quantitative and qualitative approaches were employed in estimating the impact of the ARISP-III in the project sites. The quantitative techniques included propensity score matching (PSM), difference-in-difference (DID) method, technical and productivity analysis using a stochastic frontier production function, factor share analysis, and benefit-cost analysis (BCA). On the other hand, the analysis of most significant change (MSC) stories was employed to identify qualitative indicators of project outcome/impact.

The ARISP-III had three main components, namely: (1) infrastructure development (INFRADEV), (2) institutional development (INSTIDEV) and (3) agriculture and agribusiness development (AAD). The estimated total project cost across provinces was a little over PhP196 million (in nominal value) and is equivalent to

PhP213.3 million and PhP271.8 million in real and present values, respectively. The bulk of project investment (more than 98%) was incurred on infrastructure development. A total of 19 infrastructure facilities were developed across provinces. These comprised of six communal irrigation systems/projects (CIS/CIP), five farm-to-market roads (FMR), five potable water systems (PWS), and three postharvest facilities (PHFs). The irrigation facilities provided service to a little over 400 ha, benefiting about 500 farmer-beneficiaries. Meanwhile, the FMR had a total scope of 18 km that directly benefited more than 4,000 individuals. On the other hand, the PWS structures benefited about 1,400 households. The PHF had a total land area of more than 750 sq m that supported three Agrarian Reform Cooperatives (ARCOs) in the project sites.

The INSTIDEV component facilitated the organization/strengthening of Agrarian Reform Beneficiaries' Organizations (ARBOs) in the project sites. It supported seven Irrigators' Associations (IAs), five Agrarian Reform Cooperatives (ARCOs), and five Water Users' Associations (WUAs). It conducted capability building activities for officers and members of ARBOs and facilitated the registration of about half of the ARBOs with the Securities and Exchange Commission (SEC), Cooperative Development Authority (CDA) and Department of Labor and Employment (DOLE). Furthermore, it succeeded in assisting the ARBOs to prepare the following written organizational documents: (a) Vision, Mission, Goals, and Objectives (VMGOs); (b) organizational charts, members' profile and minutes of meetings; (c) policies, systems and procedures (PSPs) for business and service; (d) operation and management manual; and (d) financial reports. In addition, the organizations were capacitated to produce their strategic development plan.

Meanwhile, the AAD component envisioned to increase farm productivity and income by helping primary cooperatives strengthen the members' farming technology through the establishment of demonstration farms, provision of appropriate trainings and enhancement of livelihood enterprises. It employed Technology Assistance Partner Institutions/Individuals (TAPIs) that took charge in coaching and mentoring the officers of primary cooperatives. Aside from TAPIs, the project actively involved the Municipal Agriculture Office (MAO), Department of Trade and Industry (DTI), and LGUs at the barangay, municipal and provincial levels. Likewise, the farmers were equipped with skills needed to develop the chosen enterprise through trainings and seminars. Through the AAD component, the primary cooperatives were able to engage in additional livelihood enterprises.

The project has employed effective approaches and strategies as well as sustainability mechanisms that helped ensure a relatively successful implementation. It has achieved its objectives of organizing and strengthening people's organizations, increasing productivity and farm income, improving the efficiency of commodity flow and mobility of people, and improving access to and availability of potable water, among others.

Some lessons learned are provided to guide the implementation of similar future development projects. Table 1 summarizes the major findings, conclusions and recommendations to sustain the gains and benefits of the ARISP-III.

Table 1. Major findings, conclusion and recommendations based on the impact evaluation of the Agrarian Reform Infrastructure Project – Phase III in Eastern Visayas

Major Finding	Conclusion	Recommendation	Responsible Agency
<u>General</u> The ARISP-III engaged in innovative strategies and mechanisms that provided infrastructure services and capability building activities to the beneficiaries that were found beneficial to individual farmer-beneficiaries and ARBOs. The quantitative measures of positive outcomes/impacts of the ARISP-III were supported by the qualitative assessment.	As an integrated development project, the ARISP-III has been generally successful in achieving its objectives. It has contributed positively to the changes in productivity and net income of farmers over time. Moreover, it has improved the efficiency of commodity flow and mobility of beneficiaries as well as provided better access to and availability of potable water to the communities. Furthermore, it has organized and strengthened most of the people's organizations, increased patronage of members of ARBOs and improved the financial performance and status of the primary cooperatives.	Regular monitoring and continuous improvement among beneficiaries are needed to further improve and sustain the gains and benefits derived from the project towards achieving the goal of poverty reduction. The interventions provided by the ARISP-III can be replicated in other sites, incorporating the lessons learned and innovative approaches employed.	DAR, DA-LGU, NIA, DPWH

Infrastructure Development			
<u>Communal Irrigation System/Project</u> Improvement in the irrigation systems increased both irrigation and cropping intensities in the project sites. It also significantly increased the productivity and profitability of farmer-beneficiaries at least three years after project implementation. However, the average yield of palay across project sites was still below the regional and national standards. Moreover, the rate of increase in productivity is lower than the ARISP-III target from 2.89 to 5.0 mt/ha eight years after project implementation. The CIS/CIP also reduced conflict in the use of irrigation water.	The irrigation projects have contributed to the improvement in the farming, economic and social conditions of a great majority of the beneficiaries in both provinces. The improvement of the irrigation systems is considered by the beneficiaries as the most significant change as it enabled them to reap both economic and social benefits. The economic benefits can be improved by increasing farmers' technical efficiency and entrepreneurial skills as well as enhancing access to better markets.	Additional capability building activities to help improve the technical efficiency and entrepreneurial skills of farmers as well as promotion of the use of hybrid palay seeds. Enhance access of farmers to better markets. The creation of Agrarian Information and Marketing Centers across provinces must be supported. Fast tract the rehabilitation of the damaged portions of the Jamorawon CIS in Biliran. Regular repair and maintenance of the CIS/CIP. Continuously engage in activitities (*e. g.* tree planting) to maintain and protect the watershed areas across provinces.	DAR, MLGU DAR, MLGU NIA, DAR, IA IAs DAR, NIA, MLGUs, IAs

<u>Farm-to-Market Road</u> The FMR component provided direct and unintended benefits to the beneficiaries in terms of reduction in travel time, increased mobility, ease in transporting goods, sense of security/safety in travel during the rainy season, support on local tourism as well as improved access to services and other livelihood opportunities. However, FMR project in San Ricardo, Southern Leyte was still incomplete. The roads were also narrow to accommodate bigger vehicles and the concrete pavements were just thin and easily damaged by inclement weather and by heavy vehicles. Not all MLGUs were able to fulfill their equity in-kind/scope of work in the FMR development project.	The FMR project has resulted in positive impacts on the living conditions of farmers across project sites. It has improved the efficiency of commodity flow and mobility of people as well as access to services and other livelihood opportunities.	Review the standards for FMR in terms of width, thickness, *etc*., to provide better and more lasting infrastructure to the people in the communities. Complete the construction of the FMR project in San Ricardo, Southern Leyte. Regular repair and maintenance of the FMRs. Compliance of MLGUs in Silago and San Ricardo in the counterpart/equity in-kind of constructing/ rehabilitating roads of the same scope in their localities.	DPWH DPWH, MLGU MLGUs DAR, MLGUs

Potable Water System The PWS increased the availability of piped water supply and reduced the dependence on spring and well as other sources of drinking water. It also significantly reduced time in fetching water. However, problems of insufficiency of water supply and low water pressure especially during dry season were encountered.	The PWS generally provided better access to and availability of potable water supply to the beneficiaries.	Regular monitoring of the PWS and WUAs. Regular repair and maintenance of PWS. Collection of commensurate user fee for proper maintenance of the water facilities.	DAR, MLGUs WUAs WUAs, DAR, MLGUs
Post-Harvest Facility Three primary cooperatives were provided postharvest facilities. The storage warehouses were also used as office space and meeting place of ARBOs as well as evacuation center during calamities. The use of solar dryer significantly reduced drying losses. However, utilization of the facility in Hingatungan, Silago, Southern Leyte was stopped. The facility was poorly constructed and defective which resulted in poor quality of milled rice. The PHF provided to the Balaquid ARC in Biliran proved beneficial in improving its palay trading business and in opening other agribusiness opportunities.	The availability of properly constructed postharvest facilities has improved the operations of most primary cooperatives as it provided bigger space for various uses especially for business purposes. It also provided opportunities for diversification of agribusiness enterprises.	Proper maintenance of the two functional PHFs. Repair of the defective drying facility in Hingatungan, Southern Leyte. Better supervision and regular monitoring in construction activities (of similar future projects), making sure that the construction plan is followed.	BARC, KARBC HARC, MLGU DAR, MLGUs

Institutional Development			
The ID component generally improved the management knowledge, attitude and practices of the ARBO officers and members. It facilitated the increase in patronage of members to their respective ARBOs and improved performance and financial status of ARBOs, particularly the primary cooperatives. Some ARBOs, however, failed to renew registration few years after the ARISP-III terminated.	The objectives of organizing and strengthening people's organizations was achieved. It has increased the patronage of members and improved the financial performance and status of ARBOs, particularly the primary cooperatives. However, sustainability was not developed in all of the beneficiary ARBOs.	Regular monitoring on the use of the recommended management practices must be done to ensure sustainability. Facilitate the renewal of registration of some ARBOs.	DAR, ARBOs DAR, ARBOs
Agriculture and Agribusiness Development			
The package of intervention provided by ARISP-III through the Institutional Development component improved the entrepreneurial competencies of the ARCOs. There was a general increase in the number of agribusiness enterprises developed, but only few of the developed enterprises were sustainable. The sustainability of agribusiness activities was affected by occurrence of calamities and choice of enterprises.	The project has developed additional agribusiness enterprises but only few were sustainable. The sustainability of agribusiness enterprises has been affected by the occurrence of calamities and choice of livelihood activities.	Conduct situational analysis as basis in choosing the enterprise to develop in each project site. Monitor the actual farm operations to ensure that farmer beneficiaries are following recommended farm practices.	DAR, MLGU, ARCOs DAR, MLGU

Sustainability Mechanism and Innovative Approaches			
The ARISP-III put in place some sustainability mechanisms that facilitated the construction/rehabilitation, utilization, and maintenance of infrastructure projects. It also adopted some innovative approaches which contributed to its relatively successful implementation.	The sustainability mechanisms and innovative approaches adopted by the project were relatively effective.	Adopt the approaches and strategies of inter-agency partnership/collaboration, raising of counterpart funds and employment of technical assistance partner institutions/individuals in the implementation of similar integrated development projects.	Lead and collaborating agencies