JBIC ODA Loan Project Mid-Term Review 2006

Evaluator: Asahi Ltd. (Toru Suetake)

Mid-Term Review Field Survey: January 2007

Project Title: The Republic of the Philippines "Help for Catubig Agricultural Advancement Project" (PH-P221)

[Loan Outline]

Loan Amount / Contract Approved Amount / Disbursed Amount: 5,210 million yen / 1,826 million yen / 606 million yen (as of the end of September 2006)

Loan Agreement: May 2001 (5 years after L/A signing) Original Project Completion Date: December 2007 Revised project Completion Date: December 2010

Loan Expiry Date: January 2011

Executing Agency: Provincial Government of Northern Samar

Operation and Maintenance Agency: National Irrigation Authority (NIA) (irrigation and drainage facilities), Department of Public Works and Highways (DPWH) (national roads and bridges), Provincial Government of Northern Samar (PGNS) (farm-to-market roads), Municipalities of Catubig and Las Navas(MC an MLN) (water supply facilities, ferry rack landings, facilities and equipment used in the control of schistosomiasis), Department of Agriculture (DA) (Regional Integrated Agricultural Research Center (RIARC) facilities), Department of Health (DOH) (schistosomiasis control)

Selection Criteria for Mid-Term Review: Collaboration (schistosomiasis reduction measure)

[Project Objective]

The objective of this project is to promote agricultural productivity and increased agricultural production in Catubig Valley in central eastern Northern Samar Province by developing primary agricultural infrastructures such as irrigation facilities, thereby contributing to higher incomes for local farmers and improvement of public health and sanitation conditions.

Contractors (principal contractors with contract amount over 1 billion yen): None

Consultants (consulting services with contract amount over 100 million yen): Sanyu Consultants Inc. (Japan), Engineering and Development Corporation of the Philippines (Philippines), Hydroterre Consultants, Inc. (Philippines) (JV)

[Mid-Term Review Result]

Item	Ex-Ante Evaluation (at the time of appraisal) (March 2001)	Result of Mid-Term Review and Ex-Post Evaluation results as estimated at the time of mid-term review
Relevance	 (1) National policy level The first section mentioned, in the Medium Term Philippines Development Plan (1999–2004) (see Note 1), was modernization of agriculture, with the goal of increased agricultural production, food secure, and increased income in regional areas. Target areas of the project were designated as priority areas for increasing food production, and planned new installation and improvement of irrigation facilities as a main measure. 	 (1) National policy level The current Medium Term Philippines Development Plan (2004–2010) (see Note 2) mentions poverty reduction and agriculture promotion as priority policies, and states promotion of farmland development, encouragement of employment in the agricultural sector, increased agricultural production, and maintaining of fair prices for agricultural production. In particular, farmland development is set as the first goal for the agricultural sector, and stated enhancement of irrigation facilities as a means to the end. Consequently, this project is highly consistent with the national policy.
	 (2) Policy level Agricultural sector development policy: The Social Reform Agenda (SRA) was stated as the main policy issue, and the main objectives of the policy were poverty eradication and stable supply of food through modernization of agriculture. This project was mentioned in the agricultural sector plan of the Provincial Development Plan of Northern Samar (2000–2005), in which agricultural promotion of the Catubig area was planned with the primary focus on this project, for local agricultural promotion and improvement of transportation to markets, including such as issuance of regulations for agricultural assistance. 	 (2) Policy level Among the priority issues in the Eastern Visayas Region, which includes Northern Samar, agricultural promotion is mentioned as a priority policy in the Eastern Visayas Regional Development Plan and Investment Plan (2004–2010). In this plan, it is planned to raise farmers' income by promoting education on agricultural modernization suited to the needs of agricultural promotion, improving access to markets, and switching to varieties with high yield and high pest resistance that are suited to market needs. This is the same as the objectives of this project, and so the project is highly consistent at the policy level. In the 2005–2007 Provincial Development Plan and Investment Program of Northern Samar, agricultural promotion is mentioned as a priority policy, and it states that the provincial government will be an agent in promotion of this project. Consequently, there is no change in the province's development policy based on agriculture.
	(3) Planning level	(3) Planning level

- Installation of economic and social infrastructure such as drainage facilities was underdeveloped in the project area, and also the health and sanitation condition, including infection with schistosomiasis, was poor. Due to the delay in installation of agricultural infrastructure such as irrigation facilities, agricultural production was low despite the fact that agriculture was the main source of income, such that the provinces self-sufficiency in rice was less than 50%. Because improvement of the living environment and livelihood through immediate installation of economic and social infrastructure was an urgent issue, the priority level of this project was high.
- Nearly all the economic and social infrastructure such as irrigation and drainage facilities in the project area is still in the planning and preparation phase. Part of the construction has just started, and agricultural productivity has not risen yet. However, the progress and completion of this project are expected. So its relevance at the planning level is high.
- Regarding schistosomiasis, samples indicate that it affects over 10% of the population in some fiscal years. Given that there is a possibility that the infection rate is actually increasing, the priority level of this project remains high.

(4) Other

• The foundation of this project is based on a development plan (F/S) by the World Bank in 1982. The main reason why it was not implemented in the Catubig area is frequent anti-government activities. However, since such activities subsided at the end of the 1990s, this project came to be implemented. At the time of this mid-term review, anti-government activities had subsided even more that at the time of the appraisal, according to interviews with the Provincial Government of Northern Samar. Consequently, security issues in carrying out this project have decreased.

Effectiveness (Impact)

- (1) Operation and effect indicators
- (i) Quantitative effects
- Indicators at the time of the ex-ante evaluation were as shown below.

Indicators at the time of Ex-ante Evaluation

Outcome	2000	7 years after	
Indicators		completion	
(1) Macro indicators			

(1) Operation and effect indicators

- (i) Quantitative effects
- The levels achieved at the time of the mid-term review are as shown below. Because construction of irrigation and drainage facilities and improvement of farm-to-market roads are still not completed, almost no effectiveness or impact has been displayed yet (i.e., there is little change in the figures since the time of the ex-ante evaluation).

Indicators at the time of Mid-Term Review

Outcome	2005 (at the time of	7 years after completion
Indicators	mid-term review)	(2017)
(1) Macro indicators		

Increase in rice	0.90	5.00
production (ton/ha) Increase in rice	4,475	39,813
yield (ton/year)	4,473	(calculated assumed a
yield (toll/year)		land usage ratio of
		175% [wet season:
		100%, dry season:
		75%])
Income increase in	9,255	52,500
rice-farming	7,233	32,300
households (peso/		
year/household)		
Increase in	6.0	21.7
national roads that	0.0	(Will be passable to
are passable in the		Municipality of Las
wet season		Navas(MLN))
(distance [km]		114745(171211))
from nearest		
trunk-line national		
road)		
· ·	market access by farm roa	ad (shortened transport
hours)	market access by farm for	da (shortenea transport
Catubig-Anongo	1h 20 min (boat)	Shorten by 75%
Las Navas–San	30 min (boat)	Shorten by 75%
Isidro		
Nabulo-Bulao	1h 30 min	Shorten by 75%
	(boat and foot)	
(3) Public Health, etc	C.	
Reduction in	MC: 2.1%	MC: 1.05%
infection rate of	MLN: 2.2%	MLN: 1.1%
schistosomiasis	(1991–1993 data)	(reduced 50%)

Increase in rice	0.90	5.00	
production (ton/ha)			
Increase in rice	4,475	39,813	
yield (ton/year)	(3,996: reference	(calculated assumed a	
	figure, rice production	land usage ratio of	
	in Municipality of	175% [wet season:	
	Catubig (MC)	100%, dry season:	
	(Note 3)	75%])	
Income increase in	9,255	52,500	
rice-farming	(4,000: reference		
households (peso/	figure, average		
year/household)	household income in		
	Municipality of		
	Catubig (MC))		
	(Note 4)		
Increase in national	6.0	21.7	
roads that are			
passable in the wet			
season (distance			
[km] from nearest			
trunk-line national			
road)			
(2) Improvement of	market access by farm ro	oad (shortened transport	
hours) (Note 5)	T		
Catubig-Anongo	(1h 20 min (boat))	(Shorten by 75%)	
Las Navas-San	(30 min (boat))	(Shorten by 75%)	
Isidro			
Nabulo-Bulao	(1h 30 min	(Shorten by 75%)	
	(boat and foot))		
(3) Public Health, etc.			
(3) I done Hearth, etc	C.		

(%) (patients/population)		
Increase in	MC: 2,999 households	MC: 3,444 households
households	MLN: 1,303	MLN: 2,988
receiving water	households	households
supply service	(1999 data)	
(households)		
Increase in number	2	9
of Irrigator		
Associations (IAs)		
Economic internal	0%	14%
rate of return		
(EIRR)		
Net benefit	0	356 million pesos

(ii) Qualitative effects

- Poverty alleviation
- Improvement of public health and sanitation conditions along lower reaches of the Catubig River through installation of water supply facilities.

	1	
infection rate of	MLN: 3.9%	MLN: 1.1%
schistosomiasis	(reference figure)	(reduced 50%)
(%) (patients/	(Note 6)	
population)		
Increase in	MC: 2,999 households	MC: 3,444 households
households	MLN: 1,303	MLN: 2,988 households
receiving water	households	
supply service		
(households)		
Increase in number	10	12
of Irrigator		
Associations (IAs)		
(Note 7)		
Economic internal	0%	14%
rate of return		
(EIRR)		
Net benefit	0	356 million pesos

(ii) Qualitative effects

- Poverty alleviation: Since improvement in farmers' incomes is anticipated following the completion of the project, it is likely that the local income level will further rise.
- Improvement of public health and sanitation conditions along lower reaches of the Catubig River: After the completion of drainage channels as a measure against schistosomiasis, usage of public toilets is adequately understood by residents. Toilets with septic tanks have increased, and furthermore, if water supply service increases, improvements in public health and sanitation condition along the lower reaches of the Catubig River may be realized.

(2) Factors which may influence the effectiveness and impact

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- Environmental considerations: At the time of planning, it was stated
 that there would be no development involving serious environmental
 destruction (receipt of the Environmental Compliance Certificate
 [ECC] from the Philippine government at the time of appraisal
 confirmed)
- Social considerations (resident relocation, etc.): At the time of planning, there was no large resident relocation accompanying land acquisition.
- Collaboration: Collaboration with and support from JICA specialists (in irrigation) at NIA is planned. On the other hand, collaboration with local NGOs is planed to support establishment of famamer's organization and training as well as health education for residents as a measure against schistosomiasis.
- Environmental considerations: In consideration for environmental impact, a separated-type irrigation dam is planned, and so it is determined that there will be no significant impact on the flow volume of the river. Consequently, it is concluded that there will be no development that causes environmental destruction.
- Resident relocation: No resident relocation has occurred heretofore.
- Collaboration: Collaboration with JICA is desirable for establishing farmers' organizations, spreading and educating agricultural techniques,. Regarding collaboration with NGOs, collaboration is already being conducted in assistance for establishment of water users' associations. Henceforth, collaboration is desirable in fields such as raising residents' awareness of countermeasures for schistosomiasis and guidance on operation and maintenance of water supply facilities.
- There were some cases at the time of the mid- term review that public toilets are used for purposes other than their intended purposes, such as storage, although they are part of the schistosomiasis countermeasures component. Unless people understand the appropriate reason for installation of public toilets and actual usage of public toilets is promoted, there is a concern that reduction of the schistosomiasis infection rate will be limited.
- Operation and maintenance system at the community level: The operation and maintenance of water supply facilities, public toilets, and foot bridges (small-scale bridges) is to be transferred to the community after completion. However, there are many cases where the operation and maintenance systems of communities have not been established. For example, the problem is that they do not collect water fees. When repairs are needed, they can not repair because of shortage of money. Also, some foot bridges were already damaged before transferred to the community. When transferring, it is desirable not only to transfer skills such as financial management, systems for water fee collection and operation, but also to established and provide guidance for operation/management

- structure such as raising the consciousness of users regarding the operation of public assets.
- Method of implementing training concerning establishment of farmers' organizations, etc.: NIA contracted with an NGO to implement trainings for leaders of the farmers on irrigation facility management, leadership training, and financial management. However, considering the farmers' situation and their needs, it appears necessary to extend the target for trainings, not only leaders of farmers but also tenant farmers, and to incorporate content that is more practical and applicable for them. Specifically, approximately 70% of the farming in the project area is contract farming by tenant farmers. Even if the area that can be irrigated is expanded, it is necessary to receive permission from the landowner to introduce modern agricultural practices such as building ridges for irrigation around plots, in order to actually farm using irrigation. Even if permission is received from a landowner, it will be necessary to sign a contract stated the terms and conditions of negotiation with the landowner, about the expense of introducing modern agricultural practices such as ridge-building. After implementation of the project, it seems necessary for tenant farmers to provide some legal assistance, in order to expand direct opportunities to work by farm extension. Also, it is desirable to implement practical trainings based on current conditions, such as trainings concerning legal knowledge on how to prepare contracts that are legally valid with the landowner in order to introduce modern agriculture, how to plant produce while watching market conditions, and how to conduct quality management of produce.
- Instructor development: Preparation of the project demonstration farm constructed by NIA as a base for training and of the test site of the Department of Agriculture are nearly complete, and facilities for providing assistance on a continuing basis are adequate. Also, to assist the establishment of farmers' organizations, NGO instructors are using not only these facilities but also community meeting halls to provide guidance

Information			to leaders of farmers. However, to further spread farmers' organizations and agricultural management support, it is necessary for local government units to continue activities to spread and educate concerning modern agricultural techniques at the community level. Since the contract with NGO instructors will expire following implementation of the project, it is desirable to develop agricultural instructors in local governments who have adequate expert techniques and knowledge and who are capable of conducting training and guidance in the community. • Operation and maintenance system for facilities and equipment for schistosomiasis countermeasures: Currently the public health agency of Northern Samar Province is not participating in the project, and there is not adequate coordination among the regional hospital of Northern Samar Province, county health centers, and health and sanitation promotion staff at the community level. For this reason, for example, basic statistical data such as the schistosomiasis infection rate is not accurately known, and the only data on the infection rate is from sample studies. Moreover, the number of communities infected can be known based on the residences of patients who come for treatment, but there is no way of knowing the number infected with schistosomiasis who do not seek treatment. To boost the sustainability of the project effects, it is desirable to gather baseline data through health and sanitation promotion staff at the community level and to continually monitor the data.
for reference			
Efficiency	(1) Outputs		(1) Outputs
	Consulting Services 376 M/M		Consulting Services Outlook 376 M/M
	Indicators	2007 Planned at the	Indicators 2006 Actual 2017 Planned
		time of appraisal	(i) Installation of new irrigation facilities / drainage channels
	(i) Installation of new irrigation facilities / o		on-farm facilities 0 ha 4,550 ha (altered by
	on-farm facilities (ha)	4,374 ha	(ha) onsite measurement
	Dam and intake facilities construction	3 locations	and detailed design)

Main irrigation canal construction	76.9 km	
Lateral canal	66.6 km	
Main drainage canal construction	42.1 km	
Drainage canal construction	76.7 km	
Service Road Construction	143.5 km	
Project Demonstration Farm	2 locations	
Land leveling	910 ha	
(ii) Improvement of trunk-line roads/bridges	(national roads) and	
farm roads (farm-to-market access roads [pro	ovincial roads])	
National road improvement	8.8 km	
National road repair	1.1 km	
Bridge construction	1 location	
Bridge and boat landing construction	2 locations	
Trunk-line road repair	12.9 km	
Farm to Market Road Construction	41.5 km	
(iii) Schistosomiasis countermeasures		
Main drainage improvement	54.3 km	
Secondary drainage facilities	48.2 km	
Tertiary drainage facilities	9 km	
Public toilets	291 locations	
Education on schistosomiasis countermeasures (training and		
education)		
Schistosome (blood fluke) control		
(iv) Water supply facilities improvement		
Local water facilities improvement 58 communities		
(v) Agricultural management guidance, establishment of farmers'		
organizations (setting up of irrigation distric	ts)	
Repair of Agricultural Research Center		
Spread of and education concerning modern	agriculture (spread	
of education and training)		

Dam and intake	0 location	3 locations
facilities		
construction		
Main irrigation canal	0 km	77 km (recalculated due
construction		to partial change in
		project area, onsite
		measurement, and
		detailed design)
Lateral canal	0 km	53 km (same as above)
Main drainage canal	0 km	71 km (same as above)
construction		
Drainage canal	0 km	73 km (same as above)
construction		
Service Road	0 km	123 km
Construction		(same as above)
Project	2 locations (Note 8)	2 locations
Demonstration Farm		
Land leveling	0 ha	910 ha
(ii) Improvement of tru	nk-line roads/bridges (nat	tional roads) and farm
roads (farm-to-market a	access roads [provincial ro	pads])
National road	0 km	11.57 km (including
improvement/constr		1.4km. by-pass road)
uction		
National road repair	0 km (included in the	0 km (included in the
	above "national road	above "national road
	improvement")	improvement")
Bridge construction	0 location	1 location
Bridge and boat	0 location	2 locations
landing construction		
Trunk-line road	12.9 km	12.9 km
repair		

Assistance for establishment of farmers' organizations
Local government capacity-building
Capacity-building of related government agencies

Farm to Market	3 km	9.03 km		
Road Construction				
(iii) Schistosomiasis countermeasures				
Main drainage	0 km	64 km (recalculated		
improvement		due to partial change		
		in project area, onsite		
		measurement, and		
		detailed design)		
Secondary drainage	0 km	64 km (same as above)		
facilities				
Tertiary drainage	0 km	0 km (same as above)		
facilities				
Public toilets	46 locations	Public toilets: 76		
(Note 9)		locations		
		Communal toilets:		
		(owned by 2–3		
		families): 600		
		locations (Plan altered		
		in 2004 in reflection		
		of living habits of		
		local residents in		
		project area)		
Education on	Eradication			
schistosomiasis	campaign			
countermeasures	implemented in 2005			
(training and				
education)				
Schistosome (blood	Equipment not yet			
fluke) control	delivered to health			
	centers in			
	Municipality of Las			

		Navas and Municipality of	
		Catubig	
	(iv) Water supply facili		<u> </u>
	Local water facilities	0 community	44 communities (14
	improvement		communities removed
			from project because
			they were not suited to
			water supply facility
			installation based on
			the water source study)
		(v) Agricultural management guidance, establishment of farmers'	
	organizations (setting u	p of irrigation districts)	T
	Repair of	0 location	1 location
	Agricultural		
	Research Center		
	Spread of and	2 times (leadership	
	education	training for leaders	
	concerning modern	of water users'	
	agriculture (spread	associations and	
	of education and	training for irrigation	
	training)	facility management,	
		one time each)	
	Assistance for	10 organizations	12 organizations
	establishment of		
	farmers'		
	organizations		
	Local government	Implementation	
	capacity-building	manual prepared and	
		related training held	
	Capacity-building of	Implementation	

		related government agencies	manual prepared and related training held	
	(2) Project cost 6,947 million yen (ODA loan portion: 5,210 million yen)	(2) Project cost ODA loan portion: 5,210 million yen (Whether there is a change in the total project cost is not yet confirmed)		
	(3) Project period May 2001–December 2007	At the time of the ex-a 2001, but due to delays	in procurement procedur	ed) ect was scheduled to begin in res, the project actually began completion date was changed
Lessons Learned and Recommend ations	 The executing agencies are concerned only with achievement of the output objectives and have low awareness concerning achievement of the outcome objectives. For this reason, at the time of this mid-term review, many examples were seen where the degree of progress in the outcome was not being consciously monitored. It is recommended that a system for monitoring achievement of outcome objectives be set up. Multiple executing agencies participated in this project, with the Provincial Government of Northern Samar acting as coordinator. However, actual implementation was delayed due to participation by executing agencies that are not accustomed to procurement procedures and several domestic circumstances such as delay in counterpart budget execution due to a change in the government administration. JBIC holds seminars annually during the project period regarding JBIC's mechanism for procurement and loan disbursement in an effort to improve expertise of the executing agencies, but due to the fact that the staff in charge was replaced, the expertise of the current staff need to be further developed. Therefore, for implementation of the project according to schedule, it is likely to be effective to conduct checks of counterpart budget execution, together with further improving the understanding of the executing agencies concerning JBIC's mechanisms for loan implementation and approval procedures as well as providing advice for assisting with procurement procedures to the executing agencies that are unaccustomed to procurement procedures. 			
Indicators set for use at the time of ex-post evaluation	(1) Macro indicators Increase in rice production (ton/ha) Increase in rice yield (ton/year) Income increase in rice-farming households (peso/year/ha) Increase in national roads that are passable in the wet season (distance [km] from nearest trunk-line national road)	(1) Macro indicators Same as left.		

(2) Improvement of market access by farm road (shortened transport hours)

Catubig–Anongo Las Navas–San Isidro Nabulo–Bulao (2) Improvement of market access by farm road (shortened transport hours) Regarding the improvement of farm roads for access to markets, a revision was made to the plan such that roads for the operation and maintenance of irrigation canals are usable as farm roads so as to improve convenience of transit. Consequently, in order to measure the time saved when accessing markets as an outcome of this project, the executing agency expressed a desire to switch the measuring standards from transport hours using farm roads as initially planned to transport hours using Hagbay Road and the irrigation canal operation and maintenance road in Catubig–Las Navas segment.

Given these changes, the time saved was:

- Catubig—Las Navas: 60 minutes using the irrigation canal operation and maintenance road;
- Las Navas—San Isidro: 8 minutes using the irrigation canal operation and maintenance road;
- Nabulo–Bulao: 23 minutes using the irrigation canal operation and maintenance road.

(Reference: Another new route of Farm-to-Market road declared by the Executing Agency in December 2007.)

Outcome Indicators	2005 (at the time of mid-term review)	7 years after completion (2017)
Quezon – Las Navas	2 hours by walking	Shortened by 85%
Bulao – Las Navas	3 hours by walking	Shortened by 85%
Sta. Fe –	2 hours by walking	Shortened by 85%
Las Navas/Catubig	plus 1 hour by boat	
Las Navas – San Isidro	1 hours by boat	Shortened by 60%

(3) Public health, etc.

Reduction in infection rate of schistosomiasis (%) (patients/population) Increase in households receiving water supply service (households)

(3) Public health, etc.

Reduction in infection rate of schistosomiasis (%) (patients/population) Increase in households receiving water supply service (households)

Increase in number of water users' associations (number of associations)	Increase in number of water users' associations (number of associations)
Economic internal rate of return (EIRR) (%)	Economic internal rate of return (EIRR) (%)
	Decrease in incidence of water born diseases (number of incidence)

- Note 1) Medium Term Philippines Development Plan 1999–2004, National Economic and Development Authority, 1999
- Note 2) Medium Term Philippines Development Plan 2004–2010, National Economic and Development Authority, 2004
- Note 3) Because statistics on the increase in rice yield (ton/year) in Northern Samar Province were unavailable, rice production in Municipality of Catubig is provided as reference.
- Note 4) Because statistics on the income increase in rice-farming households (peso/year/household) in Northern Samar Province were unavailable, average household income in Municipality of Catubig is provided as a reference.
- Note 5) Because the plan was altered so that not only farm roads but also roads for operation and maintenance of irrigation canals became available for use for farming and so the road improvement condition in the project area changed, the executing agencies desired to change the outcome objective levels. Refer to "Indicators set for use at the time of ex-post evaluation (2)."
- Note 6) This figure, which is given for reference purposes, is the schistosomiasis infection rate calculated from a study that was conducted in several communities in Municipality of Catubig and Municipality of Las Navas where there were known to be infected persons. The population used by the study did not consist of all communities in the project area.
- Note 7) Number of water users' associations. In 2006, 10 associations were established. The number of associations was revised upward due to the fact that the region to be irrigated was accurately calculated through onsite measurement and detailed design as well as the fact that areas initially targeted for irrigation were removed from the project at the request of land owners, and to offset that, irrigation was expanded to areas not originally included in the project.
- Note 8) Activities corresponding to "(vi) Strengthening of organizations" which use these facilities are underway, and understanding of agricultural modernization is gradually spreading among farmers.
- Note 9) Public toilets are toilets with septic tanks installed in public spaces in communities which anyone can use. Communal toilets are toilets in spaces shared by multiple families and are shared by multiple families; usage of a toilet is limited to the members of the families that share it.