Philippines

Agro-Industry Technology Transfer Project

Report Date: October, 2002
Field Survey: July, 2001

1. Project Profile and Japan's ODA Loan

Location Map of the Project


Project Site

1.1 Background

The agriculture sector plays a major role in the economy of the Philippines. It accounted for 26 percent of GDP, 50 percent of employment and one-third of export earnings at the time of appraisal in 1982, and the government considered a bolstered rural agriculture sector to be a prerequisite for sustainable economic development. However, the sector was quite vulnerable to global price fluctuations, since exports were limited to a small number of commodities, such as sugarcane, coconut, timber and tobacco. This meant that diversification of products was essential for sustainable agricultural development. In order to promote the production of non-traditional agricultural products, the government developed the Agro-industrial Technology Transfer Program (AITTP), whereby assistance in technology, marketing, management and finance was provided through the Technology Resource Center.

1.2 Objectives

To increase production of non-traditional agricultural products by extending long-term, low-interest agricultural loans and technical assistance, and thereby attain development in rural areas and in the agriculture sector overall.

1.3 Project Scope

(1) Long-term loan and investment by the TLRC (Technology and Livelihood Resource Center) to the following projects:

(a) Eligible industries: non-traditional agricultural production, such as papaya, mango, peanut, garlic and cucumber.

(b) Eligible end-users:

(i) Farmers, orchard operators and marine/fishpond operators

(ii) New or existing agri-based enterprises and corporations that are at least 60% owned by Philippine citizens

(c) Eligible projects: sub-projects not exceeding 10 million pesos, or common service facilities not exceeding 30 million pesos, excluding land costs

(d) Amount of loan limit: 80% of total project costs for sub-projects involving processing, and 60% for sub-projects limited to cultivation and not involving processing

(e) Interest rate: 8.75% per annum

(f) Repayment period: 5 to 15 years with a 1- to 5-year grace period

(2) Consultancy services for technique, marketing, finance, management, implementation and supervision to project proponents and the TLRC.

1.4 Borrower/Executing Agency

The Government of the Republic of the Philippines / The Technology and Livelihood Resource Center (former Technology Resource Center), Development Bank of the Philippines

1.5 Outline of Loan Agreement

Loan Amount (estimated) Loan Disbursed Amount	5,000 million Yen 3,985 million Yen
Date of Exchange of Notes Date of Loan Agreement (L/A)	May 1982 May 1982
Terms and Conditions Interest Rate Repayment Period (Grace Period) Procurement	 3.0% 30 years (10 years) General Untied (Partially Untied for Consulting Services)
Final Disbursement Date	June 1989

2. Results and Evaluation

2.1 Relevance

In the early '80s, when the project was initiated, the agriculture sector played a major role in the economy of the Philippines. It accounted for 26% of GDP, 50% of employment and one-third of export earnings. Since the variety of exports from the Philippines was rather limited, consisting mainly of sugarcane, coconut, timber and tobacco, the government considered the promotion of non-traditional agricultural products a route to the country's sustainable economic development. Although the share of agriculture in the national economy has decreased (20% of GDP, 40% of employment and 5% of exports in 2000), it is still a priority sector in the development policy of the Philippines. The enhancement of productivity and competitiveness and the diversification of production and resource use have consistently been core agricultural strategies. The Medium-term Philippine Development Plan, 1999-2004, states that the attainment of sustainable rural development should be founded on a modernized agricultural and fisheries sector and a diversified rural economy. This government strategy is supported by "the Agriculture and Fisheries Modernization Act (AFMA)," signed into law in December 1997, which addresses the current inadequacy of support services, including production and marketing support services.

It is estimated by the World Bank that the total investment required to maintain existing agricultural facilities and to achieve planned sectoral economic growth in the Philippines is on the order of 400 billion Pesos per annum over these five years. Since all agricultural loans provided by state, rural, and commercial banks amounted to 81 billion Pesos in 1998, there still remains a significant gap between the demand for and the supply of agricultural credits. In this light, it can be concluded that the current project has maintained its relevance and has been consistent with the Government's development policy through to the present.

Under the agreement with the Development Bank of the Philippines (DBP), TLRC was responsible for the appraisal and monitoring of sub-projects, while DBP was in charge of safekeeping of funds, collateral valuation, collection, recording and reporting. Considering the result of the project mentioned below, it was not sufficiently appropriate to assign TLRC responsibility for appraisal and monitoring of sub-loans.

2.2 Efficiency

2.2.1 *Disbursement of Sub-loans*

Although the agreed loan amount was 5,000 million Yen, the actual disbursement was 3,985 million Yen. Although the AITTP fund was originally scheduled to be disbursed within four years, it took seven years because: 1) the Japanese Yen appreciated significantly vis-à-vis the Peso, from about 1 peso = 30 yen (1982) to about 6 yen (1989); 2) the Comprehensive Agrarian Reform Program (CARP), which was reviewed in 1988, created uncertainty among borrowers and potential borrowers; and 3) political uncertainty, starting with the Aquino assassination in 1983, led to indecision for some borrowers.

By the end of Year 2000, 114 sub-loans were implemented, including those financed through the revolving fund, for a total disbursement of 664 million Pesos. Table 1 shows the number and amount of sub-loans by sub-industry.

Table 1 Number and Amount of Sub-loans Disbursed by Dec. 29, 2000

AITTP Sub-industry	Number of sub-loans	Total disbursed amount ('000 Pesos)	Share of Total Amount
Cut Flowers	3	11,300	2%
Feeds and Feed Grains	13	105,642	16%
Fiber	13	71,671	11%
Fruits and Vegetables	17	91,204	14%
Industrial Crops	6	10,060	2%
Livestock	14	67,005	10%
Prawn Production	22	88,247	13%
Prawn Services Facility	11	88,350	13%
Seafood and Other Aquatic Products	15	130,413	20%
Total	114	663,892	100%

Source: TLRC

Most sub-loans were between 1 million and 10 million Pesos, with an average of approximately 6 million Pesos. The maturity period of most loans was 5 years, although for industrial crops and livestock it was 7 to 8 years, because of the longer cost-recovery period. Sub-loans were used for different purposes, depending on the type of product. As Table 2 shows, more than half of the sub-loan amount was required for working capital for sub-projects in cut flowers, industrial crops, livestock and prawn production, while for other sub-projects the sub-loan was used mostly for investment.

Table 2 Utilization Purposes of Sub-loans by Sub-industry

Sub-industry	Working Capital	Land Preparation /Clearing	Buildings / Facilities/ Plants	Machinery
Cut Flowers	60%	2-5%	30%	2-5%
Fibers	5-10%	5%	30%	55-60%
Feeds & Feed Grain	5-20%	5%	25-30%	50-60%
Fruit & Vegetable	15%	5%	20%	60%
Industrial Crops	60%	20%	10%	10%
Livestock	60-70%	10-20%	10%	10%
Prawn Production	60-65%	20%	5%	10-15%
Prawn Service Facility	10%	5%	25%	60%
Seafood & Other Aquatic Products	15%	5%	20%	60%

Source: TLRC

The interest rate applied to the original sub-loans was 8.75%, while 12% for long-term loans and 13% for short-term loans were applied to the revolving fund to absorb increased administration costs and exchange rate risks. (Cf. Market rates from 1987 to 1997 were mostly 12-13% except for the term from 1989 to 1992, which were 15-24%.) Although investment by TLRC was also included at the project scope, there was no investment actually because the government policy was altered after President Aquino's ascendancy. The content of the revised policy was that the public sector should not conduct investment to the private sector.

2.2.2 *Consulting services*

The project employed Japanese consultants for 143 person-months and local consultants for 282 person-months. The Japanese and local consultants proposed re-lending guidelines and operational procedures in cooperation, all of which were reflected in the TLRC's lending and operational procedures. The consultants also conducted marketing studies and examined sub-projects from marketing, technical and financial perspectives. As a result, according to the TLRC, both the Japanese and local consultants contributed to the enhancement of project viability and to the institutional capability of the TLRC in general and of the AITTP staff in particular.

2.3 Effectiveness

The overall objective of the project was "to increase non-traditional agricultural production." Since production and market conditions, such as climate, supply and price, change considerably over time in the agricultural sector, each sub-project must be monitored closely and its sales data collected properly in order to evaluate the effects of the loans. However, no such effort has been made, except for the monitoring of repayment. As a result, the monitoring information available at TLRC is quite limited. In addition, private companies are normally not willing to disclose their financial information.

For this evaluation, borrowers were interviewed as part of a survey. The number of interviewees was limited to 15 since it was difficult to interview borrowers for those sub-projects whose accounts were already closed, regardless of their performance, and those sub-projects under litigation. It should be also noted that the sample might be rather biased since only borrowers managing companies that are cooperative with TLRC agreed to be interviewed.

Sales data were collected from 10 of the 15 companies. Table 3 shows the results of the interview survey.

Table 3 Results of End-user Interviews ('000 Pesos)

End-user	Year of disbursement	Loan amount	Annual revenue before loan	Annual revenue in 2000 in disbursement year price level	Increase (decrease) in annual revenue	Direct and indirect export
A	1995	3,573	800	25,579	24,779	100%
B	1997	3,000	800	816	16	100%
C	1985	2,900	1,500	658	(842)	0%
D	1991	6,390	2,500	11,954	9,454	0%
E	1990	11,360	3,720	4,316	596	0%
F	1995	4,623	13,445	12,585	(860)	0%
G	1999	9,000	19,000	22,092	3,092	0%
H	1997	6,200	30,000	40,789	10,789	0%
I	1988	5,000	48,000	197,368	149,368	0%
J	1989	10,000	80,000	118,421	38,421	100%

Source: JBIC evaluation mission

Note: This table includes revolving fund

Net increase in sales revenues was reported for 8 sub-projects. Three end-users are exporting all products from the TLRC loan, either directly or indirectly.

2.4 Impact

2.4.1 *Social and Economic Impact*

Ten of the 15 sub-projects surveyed increased employment; the total number of employees at these companies increased from 277 to 1,482. Six companies also increased the number of seasonal employees, from 20 to 248 in total. It can be said that the provision of credit to small- and medium-sized companies leads to an increase in employment, as long as the sub-projects are operated successfully.

2.4.2 *Environmental Impact*

Pursuant to existing law which went into effect in 1978, new or expansion projects and/or businesses must submit an Environment Compliance Certificate (ECC), obtained from the Department of Environment and Natural Resource (DENR), prior to implementation. The ECC provision is a pre-requisite for releasing the loan to the sub-project. Furthermore, the TLRC has created the T.E.M.P.O. (TLRC Environment Management Program Office), whose task is to coordinate/supervise/integrate environmental management in all of the TLRC's operations and in the operations of its clientele. This service is being provided on a fee basis. Owing to this framework and related actions, no significant environmental impact has been reported to the TLRC.

2.5 Sustainability

2.5.1 *Sustainability of Sub-loans*

The overall collection rate of principal (total repaid principal / total due) through the end of Year 2000 was 66%, which is slightly lower than the minimum allowable performance (a collection ratio of 70%) for an accredited member under the Agriculture Loan Fund Program of the Government. According to the TLRC, it should be noted that the collection rate does not necessarily reflect the viability of sub-projects, since some borrowers might sell their assets or use other sources of income to repay the debt. Table 4 and Table 5 show the status of all sub-loans.

Table 4 Collection of Sub-loans as of Dec. 31, 2000 (thousand Pesos)

Account Status	No. of Accounts	Disbursed Amount	Amount Due (Principal)	Past Due Amount (Principal)	Collection Rate
1.Fully repaid	62	371,632	371,632	0	100%
2.Current Accounts	5	30,942	16,978	1,160	93%
3.Past Due Accounts	13	50,888	34,597	23,745	31%
4.Past Due, under Litigation	34	210,431	204,890	186,159	9%
Total	114	663,892	628,098	211,065	66%

Source: TLRC

Table 5 Arrears Ratios of Sub-loans

	1983-1988	1989	1990-1993	1994	1995	1996	1997	1998	1999	2000
Accumulated number of sub-loans (a)	n.a.	81	n.a.	109	109	109	111	111	114	114
Number of sub-loans in arrears (b)	n.a.	29	n.a.	47	46	47	45	40	45	47
Arrears ratio by number (b)/(a)	n.a.	36%	n.a.	43%	42%	43%	41%	36%	39%	41%

Source: TLRC

According to the TLRC, there were quite a few sub-projects that were successful in the short-term; for instance, prawn production was highly successful and, thus, expanded rapidly throughout the Philippines until 1988. However, several factors affected the performance of AITTP sub-projects adversely, such as the globalization of production, natural disease, and animal disease. According to the TLRC, the decline of the performance of AITTP sub-projects was caused mainly by external factors, as mentioned above, rather than the inappropriate content of the sub-projects or low management ability of the borrowers. In the case of prawn production, most of the prawn culture facilities were closed because of a disease that affected prawn farms throughout South-East Asia from the end of 1980s to the early 1990s. Moreover, due to the globalization of agricultural production, mainly from the second half of 1990s, it has become quite difficult for AITTP sub-projects to sustain long-term performance unless the product has unquestionable comparative advantages. Feeds and feed grains, fiber, and industrial crops were most severely affected by globalization. Table 6 shows the performance of sub-projects by sub-industry.

Table 6 Performance of Sub-projects by Sub-industry

AITTP Sub-industry	No. of Sub-projects	Collection Rate	Performance
Cut Flowers	3	84%	Good. It continues to be a seller’s market.
Feeds and Feed Grains	13	33%	Poor. Sub-projects were not able to compete with low-price corn imported from the United States in the second half of the 1990s. In addition, El Nino 1998 and typhoons adversely affected production.
Fiber	13	42%	Poor. Sub-projects are not able to compete with low-price cotton lint imported from China in the second half of the 1990s.
Fruits & Vegetables	17	73%	Fair. It enjoys a relatively robust market.
Industrial Crops	6	67%	Poor. Sub-projects in Negros Province suffered from peace and order problems from the mid-1990s. International prices of coffee and black pepper have fallen since the early 1990s.
Livestock	14	84%	Good until 1996. Peso devaluation in 1997 rendered the import of cattle livestock too costly, since final products are sold in the domestic market.
Prawn Production	33	73%	Good until 1988. Over-supply of prawns in South-East Asia caused a sharp drop in price and the subsequent infection of ponds with disease lead to the closedown of all AITTP prawn sub-projects.
Seafood & Other Aquatic Products	15	100%	Good. Healthy performance of seaweed carrageenan projects for export and of fish culture projects for the domestic market.

Source: TLRC

The sustainability of sub-projects is even worse than the collection rate implies. As mentioned previously, even if a sub-project fully repaid its debt, it does not necessarily mean that its operation was successful; according to the TLRC, there were a significant number of cases where sub-project owners repaid their debt using other sources of income or by selling their assets when their sub-projects did not generate enough cash to pay the debt. Moreover, though there is no concrete data, many sub-projects such as shrimp production stopped operations after repayment because of adverse market changes. As far as the TLRC knows, fewer than half of the fully repaid sub-projects are still operating.

Although the performance of AITTP was not sufficient, the TLRC has taken necessary measures to recover loans; 88% of the sub-loans in arrears have been transferred to the court (see Table 4), and some of their assets have already been seized by the TLRC. Problematic accounts undergo a thorough review, and one-to-one negotiations between the Technology Funds Assistance Group (TFAG) and the project principal are held. As a result of review and/or negotiation, one of the following solutions is pursued:

- Loan restructuring, for projects that may become viable again and repay their restructured loans;
- Special payment arrangements for projects whose debt-servicing capability is doubtful, even though they are still operating (funds need to be secured elsewhere to assure debt repayment); or
- Payment in kind, where borrowers offer their assets/collateral to pay-off TLRC loans.

2.5.2 *Sustainability of the Executing Agency*

The TRC (Technology Resource Center) was renamed the TLRC during the Aquino administration, at which time livelihood generation was added to its mandate. Subsequently, the TFAG (Technology Funds Assistance Group) was created to manage technology-related funding assistance programs, and under it were placed the three units for managing the JBIC’s two-step loans: the AITTD (Agro-industrial Technology Transfer Department) for the AITTP, the IDD (Industry Development Department) for the EIMP (Export Industry Modernization Project) I, and the EIMD (Export Industry Modernization Department) for the EIMP II. In 1997, the TFAG underwent an internal realignment to strengthen its loan recovery capacity. The resulting three departments -- the NAMD (New Accounts Management Department), the CAMD (Current Accounts Management Department), and the PAMD (Problem Accounts Management Department) – continue to exist today.

Table 7 shows indicators of TLRC’s financial performance in 1999 and in 2000. Although the TLRC reported a loss of over 100 million Pesos over these two years, it has 2 billion Pesos in retaining earnings. Part of this amount is provided in the form of subsidies from the government, as compensation for extending public services related to livelihood improvement. (e.g. 97 million Pesos in 1999).

Table 7 TLRC's Financial Performance in Year 2000 (in million Pesos)

Financial Statement	Year 1999	Year 2000
Total Assets	4,053	3,984
Current Assets	1,377	1,387
Current Liabilities	564	607
Equity and Retained Earnings	2,314	2,234
Sales Revenue	238	282
Net Income before Subsidy	-135	- 101
Financial Indicators	Year 1999	Year 2000
Return on Total Assets	- 3.3%	- 2.5%
Return on Sales	- 57%	- 36%
Total Assets Turnover	0.06	0.07
Current Ratio	244%	228%
Stockholder's Equity Ratio	57%	56%

Source: TLRC

The AITTP has considerable number of non-performing loans (e.g. 47 out of 114 sub-projects; see Table 4 and Table 5). The poor performance of AITTP sub-projects will become a serious burden on the TLRC's financial performance. The TLRC is currently seeking the best way to dispose of its acquired collaterals, considering the following methods: (1) offering the assets to interested borrowers for lease, or including them in the loan package; (2) utilizing the acquired assets in other projects administered by TLRC; and (3) pursuing liquidation of the acquired assets through sale in order to prevent further deterioration of the assets. According to the TLRC, although it has already sold some of these assets, there is still a considerable amount of acquired assets. For this reason, the creation of the AAMD (Acquired Assets Management Department) was proposed to the Board of the TLRC.

Although the TLRC has made its best effort to supervise and monitor the sub-projects effectively, its data processing ability is questionable. It has sufficient technical experts in the agriculture sector, but, judging from the results of this project, it does not have sufficient operational efficiency or appraisal ability compared with commercial banks or DBP.

The AITTP is focused on non-traditional agribusinesses, which are by nature highly risky, being influenced by climate changes, price fluctuations and the globalization of the economy. In order to avoid default of sub-projects, the TLRC was expected to conduct an appropriate evaluation of all the risks associated with sub-projects. However, it seems that the TLRC did not consider negative scenarios adequately when appraising sub-projects, relying too heavily on the fact that all sub-projects were to be secured fully by collateral. The TLRC did not sufficiently consider the fact that recovery of non-performing debt is quite costly and thus significantly raises administration expenses. Considering the above situation, it could be concluded that TLRC was incompetent to conduct the appraisal of sub-loans.

2.5.3 *Special Account and Revolving Fund*

A special account was opened at the Development Bank of the Philippines (DBP). However, DBP did not keep account information properly; as a result, neither the status of the special account nor of the revolving fund could be obtained.

3. Lessons Learned

(a) Government Financial Institutions (hereinafter 'GFIs') and Non-Financial Government Agencies should focus on their original mandates and exploit their comparative advantage: the GFIs in delivering financial services, the Non-Financial Government Agencies in providing non-financial services to the target groups, including training, information dissemination, institution building and experimental functions.

(b) It is necessary to collect information concerning the status of the Special Account and the Revolving Fund, as well as repayment and arrears ratios, properly through the executing agency.

Comparison of Original and Actual Scope

Item	Original	Actual
(1) Project Scope	(1) Long-term loan and investment for the non-traditional agricultural sector (2) Consultancy services for technique, marketing, finance, management, implementation and supervision -Foreign consultants : 170M/M -Local consultants : 250M/M	(1) As planned (2) Consultancy services for technique, marketing, finance, management, implementation and supervision. -Foreign consultants : 143M/M -Local consultants : 282M/M
(2) Implementation Schedule	April 1982 to March 1986	May 1983 to May 1989
(3) Project Cost		
Foreign currency	5,000 million Yen	3,985 million Yen
Local currency	-	-
Total	5,000 million Yen	3,985 million Yen
ODA loan portion	5,000 million Yen	3,985 million Yen

Independent Evaluator's Opinion on Agro-industrial Technology Transfer Program (AITTP)

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The objectives of the AITTP are as relevant today as they were in the 1980s. The objectives of AITTP are consistent with the Philippine government strategy in agriculture and agribusiness. Improvement in productivity and crop diversification are urgent for the Philippines as it prepares for a more liberalized trade regime under the ASEAN Free Trade Agreement.

An examination of the sectoral collection rate and distribution of the sub-loans suggest that the relatively poor performance of AITTP stems from a combination of sector-specific adverse market developments and disasters, inappropriate government policy, and inadequate loan appraisal and risk assessment. Thus, for example, coffee producers were hard hit by the fall in world prices and the emergence of Vietnam as a low cost world exporter of primarily Robusta coffee in the 1990s.

Similarly, the prawn industry was indeed hit by disease and the drop in export prices. Nonetheless, it is surprising that *all* of the prawn firm borrowers folded up. Excepting for the case that *all* of the prawn ponds were hit by disease, for all of the AITTP prawn subprojects to close down meant that they were mainly marginal projects and were undertaken as part of a bandwagon during the 1980s. If so, this suggests a weak loan appraisal capability of TLRC.

The very poor collection rate for fiber AITTP projects is not quite surprising. The Philippines does not have comparative advantage in cotton.

The extremely poor collection rate for feeds and feedgrains is surprising. First, the feeds industry faced a robust market because of the fast growth of the domestic livestock industry in the 1990s. Low price of corn from the US should be a boon to the feeds industry because of lower input costs. On the other hand, feed grains producers (e..g., yellow corn) were in fact accorded very high rates of protection from imports. Domestic prices were nearly two-thirds higher than imports (assuming no import tariffs.) Given the high protection from imports, AITTP feedgrains firm beneficiaries should in principle be producing well, as is implied by the growth of yellow corn in the country. At the same time, the El Nino 1998 could not have been a major factor for the poor credit performance of feeds and feedgrains firm beneficiaries. Most of the feeds and feedgains loans from AITTP were granted in the 1980s. Considering that most of the loans were for one year to 8 years, then the El Nino 1998 occurred much later than the terminal dates of the loans. As such, it appears that the TLRC staff was not prudent enough or skillful enough in the project loan assessments under AITTP in the 1980s.

It is worth noting that most of the poor performing AITTP loans were granted during the 1980s. In contrast, the better performing loans were largely granted after the closure of the original project and funding came from the "second generation funds." One possible reason for the improved loan performance in the 1990s is that the improved policy environment brought out more clearly the areas where the country has comparative advantage and/or where domestic consumption was robust. In addition, the lack of pressure to disburse all of the funds within a limited time may have led to a more prudent choice of industries to focus on in the 1990s.

In view of the discussion above, I agree with the Project Evaluation Report that the key lesson from the project is that loan appraisal and other financial services are better handled by government financial institutions like DBP and Land Bank. The non-financial government agencies would focus on the provision of non-financial services like training, etc. to their target clients.