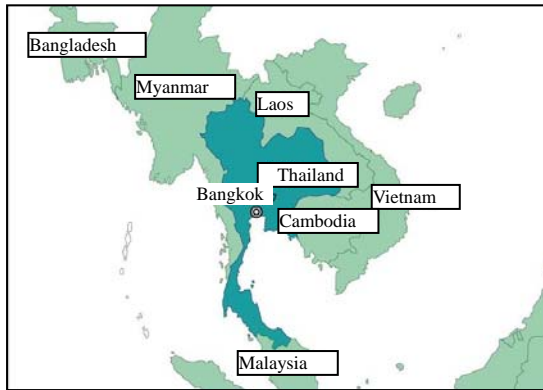


## Thailand

Social Investment Project  
External Evaluator: Atsushi Hashimoto (Maenam Advisory)  
Field Survey: December 2005

### 1. Project Profile and Japan's ODA Loan



Map of project area  
The project covers all of Thailand



Site photo: the information center at  
Wat Chom Cheun Park

#### 1.1 Background

The Thai economy achieved an average annual growth rate of 10% during the period 1986-90, mainly supported by a boom in exports. It was the result of capital accumulation and improvement in productivity and, therefore, this economic growth was well balanced from a macro-economic point of view. However, plagued by slower growth of export, the current account deficit widened during the period 1991-96. Furthermore, an excessive influx of capital in the form of short-term lending and imprudent lending by Thai financial institutions, principally for real estate, resulted in a bubble economy.

The deterioration in current account balance caused a loss of market confidence in the Thai currency and, eventually, the currency crisis occurred in 1997<sup>1</sup>. Thailand had employed fixed exchange rate regime, and foreign investors considered the baht were overvalued and carried out speculative selling of the baht. The Thai government attempted to defend the baht by using foreign currency reserves, but the reserves fall short and the government was forced to move from a fixed exchange rate regime to floating system. In addition, foreign investors all at once withdrew the short-term funds that had been invested in Thailand. As the government was unable to roll over its short-term borrowing, there was a danger of defaulting on its debts. In order to stave off the crisis, Thailand was furnished with support such as the International Monetary Fund (IMF) standby agreement to support the international balance of payments and the crisis support package of the Japan Bank for International Cooperation (JBIC).

<sup>1</sup> The international balance of payments recorded a surplus of US\$10.6 billion in 1997.

In response to the currency crisis, the Thai government attempted to achieve macro-economic stabilization in short-run and also implemented market-oriented reforms in the financial sector, such as establishment of stronger regulatory body of financial institutions and bankruptcy laws, as mid- to long-term reforms. Domestic consumption and investment fell due to tight monetary policy for curbing inflation, which resulted in that an economic growth reached minus 10% in 1998. The country fell into a severe depression. The unemployment rate rose sharply from 1.5% in 1997 to 4.4% in 1998, and the number of poor people<sup>2</sup> increased from 9.8 million in 1996 to 11.02 million in 1998. In order to mitigate the negative effects of the economic crisis on the poor, the Thai government implemented proactive fiscal policies and encouraged public works projects in rural areas under the Miyazawa Initiative, etc. As a result, economic growth recovered to 2.5% in 1999 and 3.4% in 2000.

Since then, as well as steering a course of stable macroeconomics, in the mid- to long-term the Thai government has also successfully restored confidence in the financial market by implementing market-oriented reforms in the financial sector and curtailing non-performing loans. The result was that in 2002 the economy recovered to the pre-currency crisis level and had returned to a path of sustainable economic growth.

## 1.2 Objective

Counterpart fund was used to implement civil works which effectively generates employment and short-term vocational training throughout Thailand. In this manner, the project aimed at improving basic infrastructure in the agricultural and tourism sectors, thereby contributing to employment generation and improving the ability to acquire foreign currency.

## 1.3 Outputs

The implementation of irrigation and tourism infrastructure subprojects.

## 1.4 Borrower/Executing Agency

The Kingdom of Thailand/the Tourism Authority of Thailand and the Royal Irrigation Department

## 1.5 Outline of Loan Agreement

Loan Amount/ Disbursed Amount	13,412 million yen/10,386million yen
Loan Agreement	July 1998
Terms and Conditions	
- Interest Rate	1. 0%/year
- Repayment Period (Grace Period)	25 years

<sup>2</sup> The number of people with incomes below the poverty line. The Thai government sets poverty lines per person monthly income by region. It defines the segment of the poor if their monthly income (per person) is this regional poverty line.

- Procurement	7 year General untied
Final Disbursement Date	September 2003
Main Contractors	-
Consulting Services	None
Feasibility Study (F/S) etc.	None

## 2. Evaluation Result

### 2.1 Relevance

#### 2.1.1 Relevance at the time of appraisal

Overcoming the economic crisis and achieving economic stability were important policy issues. Specifically, countermeasures were needed for these effects brought about by the economic crisis: (1) diminishing economic growth rate—sluggish demand resulting from fiscal austerity and tight monetary policies; (2) escalating prices; (3) diminishing exports; and (4) the rising unemployment rate.

The principal measure for the above policy issues were public expenditure as an attempt to shake off the economic crisis. The central aim of this public expenditure was to ensure a social safety net and give relief to the economically disadvantaged in urban and rural areas, with focus on generating employment. This project was in line with this measure, and may thus be considered to be relevant.

This project was one of a series of economic stimulants, and was concrete countermeasure to address the issues from a macroeconomic perspective; their relevance has been fully recognized. Furthermore, this project consisted of irrigation subprojects in rural villages and tourism infrastructure subprojects. Both are major sectors of the Thai economy<sup>3</sup>, and public works in both the sectors, where the ripple effect is extensive, had relevance because they were implemented at the time of the economic crisis when the economy was stagnated and there was no demand for public sector projects. As the tourism sector also contributes to the acquisition of foreign currency, the improvement of infrastructure in that sector, in the long-run, can also be regarded as contributing to a stable international balance of payments.

#### 2.1.2 Relevance at the time of evaluation

Thailand has overcome the crisis and is now experiencing prolonged economic growth. Given the economic recovery, it is reasonable to conclude that the relevance of the countermeasures at the time of the crisis brought about the present growth; the

<sup>3</sup> The agricultural sector accounted for an average 7.5% of the GDP from 1996 to 2003. Manufacturing industry has the highest GDP (over 30% of the country overall) in Thailand's industrial structure, and the food processing industry, which is a manufacturing industry sub-sector closely related to agriculture, accounts for approximately 20% of manufacturing industry overall. For this reason, agriculture is an enormously important sector for the GDP. In 1997, 45% of all workers were employed in agriculture, and 41% in 2003. The hotel and restaurant sector accounts for around 5% of GDP, but as consumption by tourists accounts for 10% of GDP, this sector has a strong ripple effect on other sectors such as tourism or retail.

project thus still has relevance in terms of policy at the present time. At the time of the economic crisis the greatest emphasis was placed on relief for the economically disadvantaged, which meant curtailing poverty and improving the quality of people’s lives. Even now, several years after the end of the economic crisis, Thailand still maintains its policy of curtailing poverty and improving the quality of people’s lives. In this sense, the policies at the time of the crisis still have relevance today.

The present Ninth National Economic and Social Development Plan aims for the “balanced and sustainable development of human, social, economic, and environmental resources”; in particular, social and economic balance shows the policy goal given to ensure the economically disadvantaged are not left behind. In this sense, the policy that increased public expenditure at the time of the crisis still maintains relevance today.

As well as providing a safety net during the economic crisis through public expenditures, this project also aimed for the improvement of infrastructure in agriculture and tourism, the most important economic sectors in Thailand, thus contributing to improved competitiveness in these sectors. Seen from both the point of view of overall as well as sector policies, this project still has relevance today.

## 2.2 Efficiency

### 2.2.1 Outputs

This project implemented irrigation and tourism infrastructure subprojects, as shown in Table-1, when the country was facing an economic crisis.

Table 1. Number of Subprojects in Targeted Sectors

	Plan	Actual Performance
Irrigation projects Reservoirs, small dams/weirs/slucice works (gates)/water channels	585	570
Projects to improve tourism infrastructure Park improvements/road widening/construction of tourist centers/training of tourist industry technicians	146	167

Source: Completion Report (Royal Irrigation Department, Tourism Authority of Thailand)

The irrigation and tourism infrastructure subprojects were implemented almost according to plan. At the project implementation stage, in accordance with the physical state of facilities and damages resulting from natural disasters (floods, etc.), subprojects were added or cancelled. However, the scope of the project remained unchanged (irrigation and tourism infrastructure subprojects). The implementation of this project has been almost according to the plan.

As indicated in Table 1, this project is consisted of a number of subprojects. For the purposes of this evaluation, some 20 subprojects from the irrigation subprojects and a similar number of subprojects from the tourism infrastructure subprojects were visited.

Visits were also made to the local organizations executing the projects. The contract documents for subcontracts and procurements of equipment and materials as well as the records of construction and delivery still remain for most of the subprojects. Therefore, it could be concluded that the work was carried out in good faith according to the procedures established by the project. It appears that the executing agencies have a high level of implementation capability.

### 2.2.2 Project period

Under the project plan, the project was to be implemented over 29 months from July 1998 to December 2000. In the actual performance, completion of the irrigation subprojects was delayed almost one year while completion of the tourism infrastructure subprojects was delayed two years.

The delay of the irrigation subprojects was due to the slow start of construction work resulting from prolonged land acquisition, delays in construction resulting from bad weather, etc. The tourism infrastructure subprojects suffered the same problems, and in addition they were delayed as a result of design changes for facilities and equipment, delays in tendering processes, difficulties in raising own equity fund, etc.

As indicated in “2.2.1 Outputs”, a total of 737 subprojects were implemented under the irrigation subprojects and the tourism infrastructure subprojects; most of these were completed within the planned period, and the delayed projects were only a very marginal proportion of the total subprojects. Overall, the project was largely implemented and completed according to plan.

Table 2. Planned Project Period and Actual Performance

	Plan	Actual Performance
Loan contract	July 1998	July 1998
Irrigation subprojects	July 1998- December 2000	January 1999-December 2001
Tourism infrastructure subprojects		August 1998-March 2002

Source: Appraisal documents, Project Completion Report (Royal Irrigation Department, Tourism Authority of Thailand)

### 2.2.3 Project cost

While the total cost of the project was expected to be approximately 14.3 billion yen, the actual performance was approximately 11.7 billion yen. The projected outputs were achieved within the planned project cost.

Table 3. Planned Project Costs and Actual Performance

(Unit: million baht/yen)

Project	Plan (million baht)	Actual performance (million baht)
Irrigation project (total)	1,619.3	1,459.6
Public works within project	1,597.7	1,438.0
Consulting services within project	21.6	21.6
Project to improve the tourism infrastructure (total)	2,948.6	2,640.3
Infrastructure improvement and service projects within project	2,726.4	2,558.7
Consulting services within project	81.8	81.7
Total	4,567.9	4,099.9
Yen conversion	14,297.5 <sup>4</sup> : (1 baht = 3.13 yen [rate at time of appraisal])	11,684.7 (1 baht = 2.85 yen)

Exchange rate: planned 1 baht = 3.13 yen; actual, 1 baht = 2.85 yen (from rates of 116.62 yen/US dollar [average monthly rate over July 1998-December 2001] and 40.97 baht/US dollar [average yearly rate over 1998-2001])

Source: Baht-US dollar exchange rate, Central Bank of Thailand; yen-US dollar exchange rate, Bank of Japan statistics

One third of the total loan was disbursed within one year after the conclusion of the loan contract and was accumulated in the special account. Funds were provided as the implementation of public works projects progressed.

## 2.3 Effectiveness

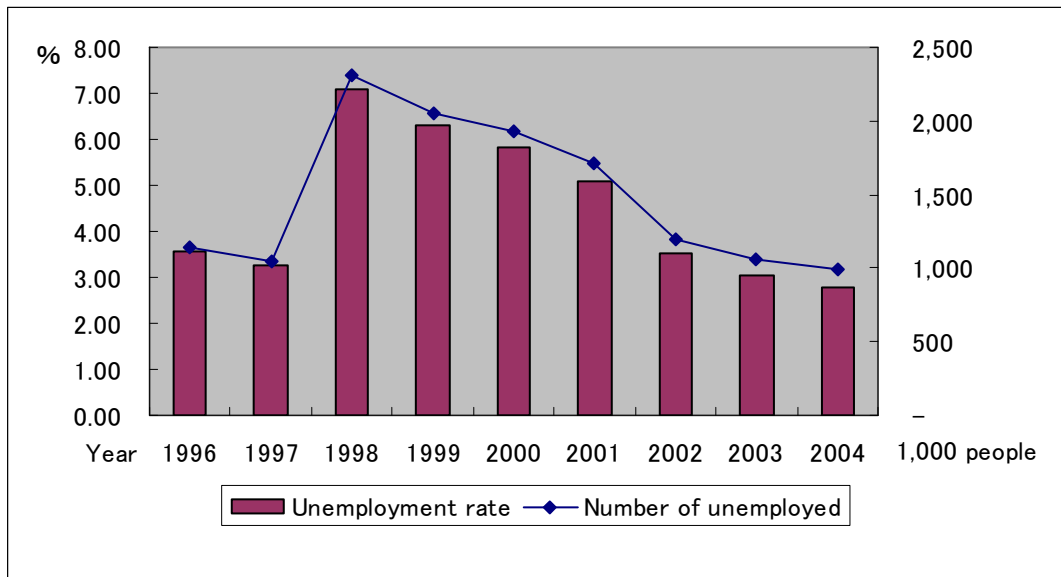
### 2.3.1 Employment generation effect

Figures for employment generation are calculated by estimating the number of people hired, assuming that a fixed proportion of the contracted amount of money for public works projects were paid as wages. In the irrigation subprojects, the planned employment generation was 250,000 man-days while the actual result was 227 man-days of employment. In the tourism infrastructure subprojects, the planned employment generation was 114,485 man-months while the actual result was 97,131 man-months. The employment generation effect thus achieved 90.8% of the expected figure for the irrigation subprojects and 84.5% of that for the tourism infrastructure subprojects<sup>5</sup>.

<sup>4</sup> The cost of the irrigation projects does not include reserve funds, irrigation machinery and tools, or administration expenses. The cost of the projects to improve the tourism infrastructure does not include administration expenses.

<sup>5</sup> At the time of the appraisal (1998) the total workforce in Thailand was 32.46 million people.

Fig. 1 Changes in the Number of Unemployed and Unemployment Rate



Source: Statistics from National Economic and Social Development Board

Looking at the job market in Thailand overall, in 1998, the year immediately after the financial crisis, the number of unemployed including seasonal workers had reached 2.41 million, and the unemployment rate 7.1%<sup>6</sup>. The unemployment rate started to fall in 1998, but it still remained high, standing at 6.3% in 1999, 5.8% in 2000, and 5.1% in 2001. The subprojects under this project were mainly carried out during the period when unemployment exceeded 5% (1999-2001); looking at the unemployment situation of the country overall, the project appears to have had a significant employment generation effect.

(Specific examples of the employment generation effect)

The irrigation projects consisted mainly of civil engineering work such as improvements to irrigation channels or building up weirs. Some of the work was carried out directly by the Royal Irrigation Department and some by contractors, but in both cases farmers were employed as laborers. Farmers are seasonal workers who provide a labor force in urban areas during the slack season for agriculture, but opportunities for employment had been lost because of the decrease in the number of construction projects resulting from the economic crisis. The employment generation and cash revenue from the employment helped farmers maintain their subsistence. Farmers who benefited from the subprojects of the Phitsanulok Irrigation Project recorded an increase in income of 5,000 baht per month through wages for labor on the construction.

The tourism subprojects were implemented through contractors. The GDP of the

<sup>6</sup> If changes resulting from seasonal workers are excluded, the unemployment rate in Thailand in 1997, immediately before the economic crisis, was 1.5%, but it rose sharply to 4.4% in 1998. There were 490,000 people unemployed in 1997, but this figure rose to 1.41 million in 1998.

construction industry fell sharply during the period from 1997 to 2000, amounting to 272 billion baht in 1997, 179 billion baht in 1998, 166 billion baht in 1999, and 151 billion baht in 2000. This project appears to have made a contribution by supporting constructors and maintaining employment.

### 2.3.2 Increase in irrigation area

During the period from 1998, when this project started, to 2001, the nationwide irrigation rate of farmland increased by one 1.1 % from 23.0% to 24.1%, so this project appears to have made a certain contribution to an increase in the irrigation area<sup>7</sup>.

Table 4. Changes in the Irrigation Area

Region	Agricultural/irrigation area	1997	1998	1999	2000	2001
Northern	Irrigation area (rai)	7,862,717	7,941,892	8,019,282	7,225,902	6,395,488
	Agricultural area (rai)	28,601,690	28,274,892	28,312,917	28,133,145	27,982,872
	Total (%)	27.5	28.1	28.3	25.7	22.9
Northeastern	Irrigation area (rai)	5,149,071	5,175,571	5,371,336	5,326,393	6,310,144
	Agricultural area (rai)	57,623,773	57,429,749	57,946,997	58,004,285	57,999,229
	Total (%)	8.9	9.0	9.3	9.2	10.9
Central	Irrigation area (rai)	13,584,168	13,679,448	14,337,348	15,431,431	15,583,205
	Agricultural area (rai)	26,313,837	25,883,514	25,941,614	25,886,602	25,892,155
	Total (%)	51.6	52.8	55.3	59.6	60.2
Southern	Irrigation area (rai)	3,083,882	3,134,724	3,198,624	3,254,962	3,277,412
	Agricultural area (rai)	18,568,308	18,805,370	19,139,856	19,171,881	19,185,718
	Total (%)	16.6	16.7	16.7	17.0	17.1
Whole country	Irrigation area (rai)	29,679,838	29,931,635	30,926,590	31,238,688	31,566,249
	Agricultural area (rai)	131,107,608	130,393,525	131,341,384	131,195,913	131,059,974
	Total (%)	22.6	23.0	23.6	23.8	24.1

Source: Ministry of Agriculture and Cooperatives

(Examples of results from the projects through increased irrigation area)

The projects appear to have had a certain effect on increasing the irrigation area,

<sup>7</sup> This project consisted of repairs and extensions to existing projects and not the construction of new irrigation facilities. For this reason, it cannot be said to have made very much of a contribution to increasing the irrigation area, but there does appear to have been some degree of results in this area.



however the positive effect that the beneficiary farmers of the irrigation subprojects were most grateful for was the assurance of a sufficient quantity of water to enable cultivation even during the dry season. In other words, while the irrigated area did not grow any larger, they were glad to be able to have a longer cultivation period. Rice cultivation is not possible, but grains and vegetables such as corn, soybeans, onions, garlic and cucumbers can be grown, and farmers' incomes have increased through the sale of these crops. After the completion of the irrigation subproject, the above-cited beneficiary farmers of the Phitsanulok Irrigation Project mentioned a 3,000-5,000 baht/month increase in their income through increases in yield and cultivation of crops in the dry season. The farmers who benefited from the project reported in interviews that, depending on the scale of the farm and the crops planted, there had been roughly a 20% increase and in some cases a 100% increase in incomes after the completion of the subproject.

### 2.3.3 Increase in tourists

The number of foreign tourists to Thailand has continued to increase more or less steadily over the last 10 years (there was a slight reduction in 2003 because of the effects of SARS and avian influenza). The increase was from 7.2 million in 1996 to 13.4 million in 2005.

The number of Thai tourists was affected by the economic crisis, showing some reduction in 1997-98 (a decrease of 0.7% on the previous year), but since then has continued to increase. There were 53.6 million domestic tourists recorded in 1998 and 76.3 million in 2005.

It appears that the steady efforts to improve facilities and equipment in a great number of natural parks and historic ruins under the tourism infrastructure subprojects led to an increase in the number of tourists to some extent.

Table 5. Changes in the Number of Tourists

Year	Foreign tourists		Domestic tourists	
	Million people	Increase (%)	Million people	Increase (%)
1996	7.19	+3.46	52.47	+0.40
1997	7.22	+0.41	52.05	-0.78
1998	7.76	+7.53	51.68	-0.72
1999	8.58	+10.50	53.62	+3.02
2000	9.51	+10.82	54.74	+2.08
2001	10.06	+5.82	58.62	+7.09
2002	10.80	+7.33	61.82	+5.45
2003	10.00	-7.36	69.36	+12.20

	Foreign tourists		Domestic tourists	
2004	12.00	+19.95	73.18	+5.51
2005	13.38	+11.50	76.25	+4.19

Source: Statistics from National Economic and Social Development Board

#### 2.3.4 Improvement of international balance of payments

Looking at Thailand's international balance of payments over the last 12 years, the situation before the financial crisis (the latter half of 1997) was that a large deficit in the current account balance was covered by a surplus in the capital account balance. In 1996, immediately before the crisis, the current account deficit was US\$14.35 billion, which was covered by a capital account surplus of US\$19.5 billion, but much of this was from an increase in external borrowing in the private sector. In 1997, the year of the economic crisis, the international balance of payments showed a deficit of US\$10.6 billion. After the crisis occurred, the structure of the international balance of payments was the reverse of the pre-crisis situation, with the surplus in the current account balance covering an increase in repayments abroad. The increase in exports contributed to a surplus in the current account balance. Thailand experienced consistent trade deficit from 1993 to 1997. The trade balance showed a deficit of US\$16.1 billion in 1996.

The trade balance became surplus after the economic crisis while the capital account balance showed a deficit; the positive international balance of payments brought the current account balance back into surplus, and the foreign currency reserve increased. The international balance of payments showed a surplus of US\$1.7 billion in 1998 and US\$4.6 billion in 1999, and although it shifted to a deficit of US\$1.6 billion in 2000, the international balance of payments has stayed in surplus since 2001.

It appears that the provision of foreign capital through this project served to improve the international balance of payments and maintain investor confidence in Thailand, after which it had the effect of maintaining the surplus in the international balance of payments.

Table 6. Changes in the International Balance of Payments

(Unit: millions of US dollars)

	1996	1997	1998	1999	2000	2001	2002	2003	2004 p
Current account balance	-14,350	-3,110	14,291	12,466	9,328	6,205	7,008	7,965	6,865
Trade, service	-11,723	-130	17,470	15,086	10,116	6,969	7,746	8,821	6,754
Trade	-16,148	-4,624	12,235	9,272	5,466	2,494	2,739	3,759	1,460
Service	4,425	4,494	5,235	5,814	4,650	4,475	5,007	5,062	5,294
Capital account balance	19,504	-4,343	-9,742	-7,908	-10,261	-4,634	-4,192	-8,000	-591
International balance of payments	2,169	-10,649	1,734	4,584	-1,617	1,317	4,234	143	5,735

2004 p figures are provisional

Source: Central Bank of Thailand statistics

## 2.4 Impact

### 2.4.1 Economic stability and growth

The effects of the economic crisis on the Thai economy were that it recorded negative economic growth in 1997 (-0.7%) and 1998 (-10.5%), and during these years the international balance of payments worsened, and the rates of unemployment and poverty<sup>8</sup> grew. However, Thailand received supports from bilateral and multilateral organizations and implemented economic recovery measures, so that from 1998 onwards the country has experienced economic recovery. By 2002 the economy had almost returned to its pre-crisis level, and since then has continued to show growth. This project had an impact on overall economic recovery and growth.

Table 7. Changes in Main Economic Indicators

	96	97	98	99	00	01	02	03	04	2005 p
1. GDP at constant 1988 price (billion baht)										
	3,115.3	3,072.6	2,749.7	2,872.0	3,008.4	3,073.6	3,237.0	3,464.7	3,678.5	....
(% change)	5.9	-1.4	-10.5	4.4	4.8	2.2	5.3	7.0	6.2	....
2. GNP per capita (baht)										
	75,146	76,057	72,979	72,981	77,863	80,558	84,919	91,398	99,339	....
3. Consumer Price Index (2002=100)										
	84.1	88.8	96.0	96.2	97.8	99.4	100.0	101.8	104.6	109.3
(% change)	5.9	5.6	8.1	0.3	1.6	1.6	0.7	1.8	2.7	4.5
4. Government Finance (fiscal year) (billions of baht)										
5.1 Cash balance										
	104.3	-87.1	-115.3	-134.4	-116.6	-107.9	-118.7	34.3	17.2	16.8
(as % of GDP)	2.3	-1.9	-2.5	-2.9	-2.4	-2.1	-2.2	0.6	0.3	

2005 p figures are provisional

Source: Central Bank of Thailand

### 2.4.2 Poverty reduction

The irrigation subprojects were implemented smoothly and, as a result, were able to provide local employment generation and opportunities for increased cash income, thus providing a social safety net for local farmers, including impoverished people, at a time when the impoverished stratum was on rise. Furthermore, by making use of the completed irrigation facilities, the beneficiably farmers were able to increase their incomes by increasing the cultivated lands, improving their crop yield, and enabling double-cropping. An increase in earnings had an impact on poverty reduction.

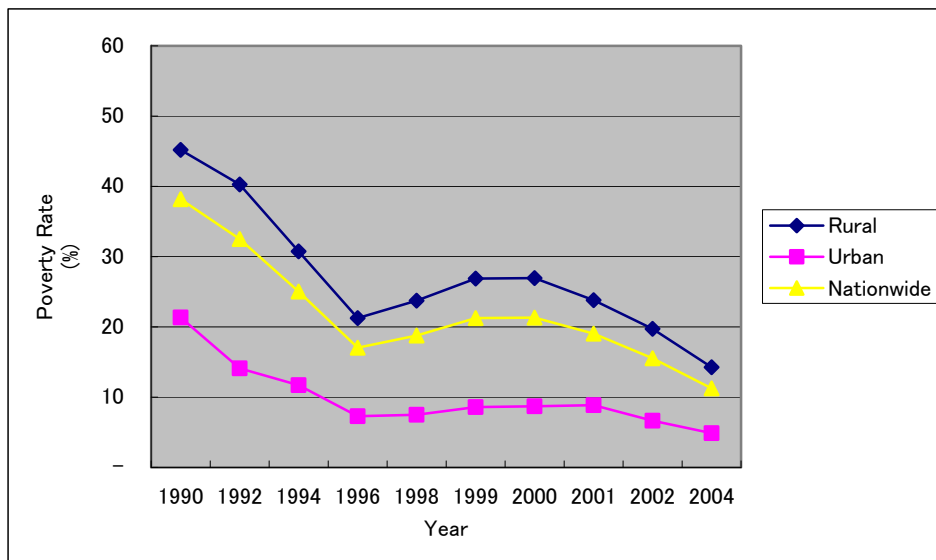
In the tourism infrastructure projects, contracts for civil engineering and construction work were awarded to local companies. By taking part in civil engineering and other

<sup>8</sup>The proportion of the whole population accounted for by the segment of impoverished people. For definition of impoverished people, see footnote 2.

work, local residents were able to make up for the reduction in tourist income, so the projects were able to provide a social safety net for local residents including the impoverished stratum. People working at souvenir shops and eateries in the vicinity of national parks and tourist attractions which were improved under this project said in interviews that they had the impression that tourist numbers had returned to pre-economic crisis levels, but that in their view sales had not yet returned to previous level.

The poverty rate continued to rise for three years following the economic crisis; in 1996 it was 17%, and after the crisis it was 19% in 1998 and 21% in both 1999 and 2000. After 2000 the trend was reversed, showing remarkable improvement; the rate was 19% in 2001 and 11% in 2004. Because the proportion of the population belonging to the poor stratum<sup>9</sup> did not decrease immediately following the economic crisis, it is evident that this segment was greatly affected by the crisis. The program loans providing a social safety net to local residents, including the segment of impoverished people, through public works projects appear to have been particularly effective for the segment temporarily impoverished by the economic crisis.

Fig. 2 Changes in the Poverty Rate



Source: Statistics from National Economic and Social Development Board

#### 2.4.3 Community development

Some beneficiary farmers have expressed the view that, through the implementation of irrigation subprojects, the water users' associations have become more energetic in their activities and that there are increased opportunities for exchanges of opinions, so

<sup>9</sup> The population of those living on an income which falls below the poverty line. Calculating monthly income per capita by dividing household income by the number of those making up the household, "the poor" are defined as those who fall below the poverty line (monthly income per capita in Thai baht), the setting of which varies from region to region.

that the cooperation within communities has improved. The project appears to have had an impact in terms of community development.

## 2.5 Sustainability

### 2.5.1 Executing agency

The executing agency of the irrigation subprojects was the Royal Irrigation Department. On the construction of irrigation facilities, in some cases, the Royal Irrigation Department drew up the plans and used the human resources of its regional office together with locally hired labor, and in other cases the construction work was contracted out. For the projects to improve the tourism infrastructure, the Tourism Authority of Thailand was a coordinating agency, and nine departments, acting as the executing agencies, carried out the work<sup>10</sup>.

#### 2.5.1.1 Technical capacity

The subprojects did not require high technical capacity. The technical capacity of the local users and the facility administrators already had was sufficient for operation and maintenance.

In the projects where field studies were carried out, there were no examples of low sustainability through a lack of knowledge or technical capacity.

#### 2.5.1.2 Operation and maintenance structure and finances

Regarding the irrigation subprojects, control of the irrigation facilities was handed over after they were completed to village organizations<sup>11</sup>. The village organizations are officially responsible for the facilities, but day-to-day operation and maintenance and small-scale repairs to facilities are carried out by the beneficiary farmers themselves or by water users' organizations. For large-scale repairs, requests are made to the regional office of the Royal Irrigation Department.

In the tourism infrastructure subprojects, each executing agency that has implemented sub-projects carries out operation and maintenance within their budget.

### 2.5.2 Operation and maintenance status

In the irrigation subprojects where a field survey was carried out, the operation and maintenance status in general was not bad. Many administrators expressed the view that sufficient operation and maintenance could not be carried out due to the lack of budget, but it appears that operation and maintenance has been carried out within the limited budget. Although some facilities were damaged due to natural disasters such as floods and could not be repaired with the budget available to the water users' organizations, the

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<sup>10</sup> At the time of project planning, the nine departments were: the Tourism Authority of Thailand (TAT), the Department of Local Administration (DOLA), the Public Works Department (PWD), the Community Development Department (CDD), the Department of Accelerated Rural Development (ARD), the Office of the Permanent Secretary for Interior (OPSI), the Royal Forest Department (RFD), the Fine Arts Department (FAD), and the Department of Public Welfare (DPW). As a result of organizational changes in 2002, the PWD became the Public Works and Town & Country Planning (DTCP), and the RFD became the National Parks, Wildlife and Plants Conservation Department (DNP).

<sup>11</sup> Local government organizations called the "Tanbon Authorities."

Royal Irrigation Department is expected to have a budgetary allowance and carry out the repair work.

The operation and maintenance status of the tourism infrastructure subprojects was mostly good. As with the irrigation subprojects, there was damage due to natural disasters such as floods and some were not repaired yet. Operation and maintenance is carried out with budgetary allowance from each executing agency, and although there is the lack of budgets in general, no technical or organizational problems were seen.

### 3. Feedback

#### 3.1 Lessons learned

##### 3.1.1 Monitoring of the implementation status of public works projects

As part of the consulting services in the irrigation subprojects, plans and profiles of the subprojects under construction (construction sites, details of construction work, budgets, numbers of beneficiary households, etc.), as well as the progress of the projects (photographs and explanations) were put up on a website and made publicly available through the Internet. The system for monitoring the progress of implementation was a sound one, and this is a good practice that other projects should emulate.

##### 3.1.2 Administration system for project execution

This project is similar to a sector program loan, in which many departments implemented a large number of subprojects, following a single objective (which in the case of this project was generating employment). In cases of projects such as these, as the lender is unable to check on the content of each individual subproject or how it is being implemented, smooth implementation of subprojects depends on the implementation capability of the executing agencies. One can make a judgment on the capability of executing agencies by checking on whether they have kept well-organized records of implemented projects, records of contractor selection, contract documents, records of subproject monitoring, and payment receipts (or bank transfer slips), as well as checking whether they have specific guidelines on procurement procedures. If the above mentioned records are properly kept, the use of the funds does not necessarily have to be checked in details. With both the irrigation and tourism infrastructure subprojects, almost all the documentation enabling confirmation of contract details at local management offices was in order. Backed up by a high level of administrative capability, this project can be judged to have been smoothly implemented.

#### 3.2 Recommendations

None

### Comparison of Original and Actual Scope

Item	Plan	Actual
(1) Outputs 1) Foreign currency saving Savings of collateral funds	13,412 million yen	10,386 million yen
Implementation of public works projects through collateral funds	Irrigation projects: 585 Projects to improve tourism infrastructure: 146	Irrigation projects: 570 Projects to improve tourism infrastructure: 167
(2) Project Period 1) L/A signing 2) Implementation of public works projects through collateral funds	July 1998 July 1998-December 2000	July 1998 July 1998-March 2002 Irrigation projects: January 1999-December 2001 Projects to improve tourism infrastructure: August 1998-March 2002
(3) Project Cost		
Irrigation project:	6,291 million yen	4,160 million yen
Foreign currency	---	---
Local currency	6,291 million yen	4,160 million yen
Total		
Projects to improve tourism infrastructure:	9,769 million yen	7,525 million yen
Foreign currency	---	---
Local currency	9,769 million yen	7,525 million yen
Total		
Total (irrigation & tourism)	16,060 million yen	11,685 million yen
ODA Loan Portion	13,412 billion yen	10,386 billion yen
Exchange Rate	1 baht = 3.13 yen	1 baht = 2.85 yen