

Contents of This Report

1. Evaluation reports included in this report

The results of all evaluations (Detailed, Desk and Third-party Evaluations) reported in 1997 are included in this report. In addition, the content of all research reports linked with detailed evaluations are included.

The contents of this report is also available on OECF Homepage (<http://www.oecf.go.jp>).

2. Summary of the post-evaluation in 1997

The number of evaluations reported in fiscal 1997 amounted to 20, and the total number of projects that were the subjects of evaluations was 30 (since one evaluation can cover more than one project).

By geographical distribution, 30 projects that were evaluated show that the great majority of projects are in Asia. Adding to the fact that many of the beneficiaries of ODA LOANS are in Asian region, the project selection was influenced by the availability of information on the projects after completion and the existence of research themes as well as detailed evaluations to be implemented. As a matter of fact, this is a regular trend.

【Table 1-1 Classification of Projects Evaluated in 1997 by Sector and Region】

Sector/ Region	Asia	Middle East	Africa	Central & South America	Others	Total
Electricity and Gas	8	1		1	1	11
Transport	12			1		13
Communications						0
Mining and Industry	1					1
Agriculture, Forestry and Fisheries						0
Irrigation and Water Management	1					1
Social Services	4					4
Others						0
Total	26	1	0	2	1	30

3. Summaries of individual evaluation reports

< Detailed evaluations >

(1) The Republic of Indonesia "Langkeme Irrigation Project"

This project, which covers approximately 7,300 ha of agricultural land in the South Sulawesi Province of Sulawesi Island in the Republic of Indonesia, aims to build and improve irrigation facilities such as intake weirs and irrigation canals in order to realize a stable supply of irrigation water that will permit the expansion of rice cultivation. ODA LOAN finances the foreign currency portion of the project's costs as well as a portion of the local currency cost.

This project is an example of one which the OECF financed after JICA conducted its Feasibility Study, and the evaluation work was performed in cooperation between OECF and JICA. Although this project was completed approximately 5 years behind schedule due to delays in the bidding phase, its contents were implemented almost exactly as planned. Following completion, a computerized distribution management system and a maintenance system for tertiary canals run by irrigation associations were established, enabling the efficient operation and maintenance of irrigation facilities.

Compared to before project implementation, this project resulted in a 22% improvement in the unit area yield during rainy season, a 26% improvement during the dry season, and a 55% improvement in rice yield during the rainy season, and 122% during the dry season. Thus the remarkable results of this project have been duly recognized.

(2) Republic of Costa Rica "Miravalles Geothermal Project"

This project has built Costa Rica's first geothermal power plant in the foot of the Miravalles Volcano some 220 km north of San Jose, the country's capital (Miravalles Geothermal Power Plant No. 1, Capacity of 55 MW x 1 unit). A steady power supply throughout the year is assured by operating the same power plant as the base load, which also achieves foreign currency economies through the use of geothermal energy, a domestic resource. The rising importance of finding substitutes to imported oil has as its background the slowdown of Costa Rica's economic growth since the 1980's and the nation's rising of foreign debt level.

This project is a co-financing project with IDB. The portion financed by OECF consists of the entire foreign currency cost apart from the portion financed by IDB (excavation of steam wells) and part of the local currency cost.

The implementation of this project was delayed due to considerations on the Costa Rican side regarding the appreciation of yen, but operation following completion went smoothly. In addition to realizing steady power supply in Costa Rica, this project has contributed to annual foreign currency savings of US\$25 million (1996) through the reduction of oil imports.

(3) Syrian Arab Republic "Baniyas Power Station Extension Project"

This project has increased the capacity of the Baniyas Power Station completed in 1984 (No. 1 and No. 2 generators, with a combined 340-MW capacity) by adding the No. 3 and No. 4 generators, with a combined 340-MW capacity, so as to expand the absolute electric power supply capacity in Syria and reduce power supply gaps. This project is also the first ODA LOAN to Syria. The ODA LOAN covered the total foreign currency costs of the project except cost for consulting services.

This project has been completed almost as planned without construction delays or cost overruns, and the newly built generators entered operation right away. As a result, the power stations share of the total Syrian power supply rose from 25% to 30%, contributing to alleviate Syria's stringent power shortages.

(4) Kingdom of Thailand "Railway Cars Procurement Project", "Train Dispatcher Telephone Improvement & Passenger Coach Project", "Passenger Coaches Procurement Project(II)," "Project for State Railway of Thailand"

This evaluation covers four procurement projects for railway cars for the State Railway of

Thailand. Each project aimed to increase Thailand's transport capacity through the procurement of the required railway cars. The railway cars procurement project procured replacement rail cars as well as freight cars for new lines, the two passenger coaches procurement projects procured long-distance passenger transport cars (2nd-class sleeping car), and the Project for State Railway of Thailand procured diesel locomotives and freight cars to fill new demand. The ODA LOAN covered the entire foreign-currency costs of the project.

These railway cars procured through these four projects have achieved higher-than-average operation rates and transport records (compared to national average), and the fact that they have significantly contributed to reinforcing the passenger and freight transport capacity of the State Railway of Thailand has been confirmed.

(5) Kingdom of Thailand "Impact Study of the Rural Electrification Projects"

This evaluation covers four projects; "Power Distribution Systems Reinforcement Project (IV-2), "Power Distribution Systems Reinforcement Project (IV-3), "Normal Rural Electrification Project (II)" and "Village Electrification Project (III)". These four projects aimed to increase the electrification rate in the countryside and raise the stability of the electric power supply through the construction of power distribution facilities, in response to the rise in electric power demand in the countryside resulting from the rapid economic growth during Thailand's Sixth National Economic and Social Development Plan (1987 to 1991). The ODA LOANs covered the entire foreign-currency expenditures required for these projects.

Each of these projects were implemented while flexibly responding to fluctuations in electric power demand in the regions concerned. However, construction experienced some delays compared to the original schedule because power interruptions due to construction work for reinforcing existing power distribution lines were not implemented as planned.

The power distribution systems constructed through these four projects represent over 90% of the regional power distribution systems established during that period. In other words, 3,677 villages were electrified and power distribution facilities at 49,904 villages were reinforced through these four projects. Furthermore, the expansion of power distribution facilities has enabled increasing the amount of electric power supplied to the countryside, which in turn has allowed electric power consumption in the countryside to grow approximately 3.9 times from 1985 to 1995.

(6) Kingdom of Thailand "Bangkok Water Supply Improvement Project (Tunnel Rehabilitation)"

"Bangkok Water Supply Improvement Project (Stage II-Phase IB)",

The Bangkok Water Supply Improvement Project (II-1B) has expanded the capacity of Bang Ken Water Treatment Plant (400,000 m³/day) as well as the city's water duct network, while the Bangkok Water Supply Improvement Project (Tunnel Rehabilitation) has repaired existing water tunnels, in order to handle the Bangkok Metropolitan Area's rising demand for water. The ODA LOANs covered the foreign-currency portion of these two projects' costs.

Both projects were completed slightly behind schedule due to delays during the procurement phase, but facilities smoothly entered operation following completion, thereby supporting the rapidly expanding demand for water in the Bangkok Metropolitan Area. Furthermore, these projects made it possible to enact a prohibition on underground water pumping, thus contributing to slowing down the rate of subsidence.

(7) People's Republic of China "Lianyungang Port Expansion Project (I) ~ (VI)", "Zhengzhou-Baoji Railway Electrification Project (I) ~ (V)" and "Baoji-Zhongwei Railway Construction Project (I) ~ (IV)"

The subject of this evaluation is three transport capacity reinforcement projects in Central China, the Lianyungang Port Expansion Project, the Zhengzhou-Baoji Railway Electrification Project, and the Baoji-Zhongwei Railway Construction Project.

The Lianyungang Port Expansion Project was financed for the construction of various facilities and five berths; including a timber berth, a grain berth, and a container berth in the Miaoling district

of Lianyungang Port in Jiangsu Province, as well as a breakwater, so as to respond increased demand for freight transportation in that port. The Zhengzhou-Baoji Railway Electrification Project has electrified 684 km of railway between Zhengzhou in Henan Province and Baoji in Shenxi Province, in order to expand the transport capacity. The Baoji-Zhongwei Railway Construction Project has constructed 500 km of electrified single-track railway between Baoji in Shenxi Province and Zhongwei in Ningxia, in order to expand the transportation capacity in Northeast China. The ODA LOANs for these projects covered the foreign-currency portion of the project costs.

The Lianyungang Port Expansion Project required a long time for the foundation work of the breakwater, which resulted in its completion after a 2-year delay. Moreover, of the five berths that were constructed in the port, the timber berth is currently used as a freight berth. However, the two railway projects were implemented almost completely according to plan.

Following the completion of the Lianyungang Port Expansion Project, the berths constructed with the ODA LOAN accounted for 20% of the 17 million-ton volume of freight handled in the port in fiscal 1995. The main categories of freight handled were containers, cereals, non-metallic minerals. The growth in containers was particularly conspicuous.

The segment electrified through the Zhengzhou-Baoji Railway Electrification Project was already handling near its peak transport capacity with 55 million tons carried in 1996. Moreover, the use of electric locomotives allowed annual savings of 340,000 tons compared to when using steam locomotives. However, the Baoji-Zhongwei Railway has just opened recently and therefore its transportation volume has only reached half (8 million tons in 1996) the transportation capacity, but construction of a large-scale thermal power plant is planned along the railway, so that the volume of coal transportation is expected to rise. Furthermore, the Baoji-Zhongwei Railway was constructed as a bypass of the Baoji-Lanzhou-Wuwei trunk of the already existing Longhai Railway, a function that it fully fulfills.

(8) People's Republic of China "Wuhan Tian He Airport Construction Project"

In this project, a new airport (landing strips, terminals, air safety facilities) in Tian He District, approximately 40 km northwest of Wuhan, including 3,400 m of runways, was constructed in order to cope with rising demand for air traffic in Hubei Province (Wuhan) and to contribute to the economic development of the region. The ODA LOAN covered the foreign-currency portion of the project costs.

The project was completed about 2 years behind schedule, due mainly to technical reasons (foundation improvement for runways, extensions, etc.). Moreover, the requirement of additional construction and the rise in price of construction materials in China caused a considerable local-currency cost overrun.

Demand for air transportation in the Wuhan region is steadily increasing, and the number of passengers using Wuhan Tian He Airport during fiscal 1995 reached approximately 2 million. Wuhan is approximately 1,200 km from other major cities (Beijing, Guanzhou, Shanghai) (1.5 to 2-hour flight). This project is expected to play a major role as an air transportation base as demand for air transportation is rapidly increasing in China.

(9) Republic of the Philippines "Palinpinon Geothermal Plant Project (II), (II-2)"

This project has excavated and developed 22 new steam wells (production wells and reinjection wells) in the Palinpinon Geothermal Power Plant in the south of Negros Island, expanding the power generation capacity by 80 MW (20 MW x 4 generators). As part of the same project, power transmission lines from Negros Island to Cebu Island (18 km of aerial cable and submarine cable) have also been installed. This project was co-financed by the World Bank and OECF. The ODA LOAN covered the steam wells and the power transmission lines, while the World Bank loan covered the construction of the power plant.

The project completion was delayed due in part to changes in the location of the power plant, and a cost overrun was also incurred. However, the project's completion provided the planned 80 MW increase in power supply, contributing to the stabilization of power supply, the promotion of industry,

and improvements in the living standard of residents. Also, the use of geothermal energy, a domestic resource, contributed to reducing raw oil imports equivalent to US\$16.6 million during fiscal 1996 compared to power generation using imported oil.

<Third-party Evaluation>

(1) Republic of the Philippines "Provincial Cities Water Supply Projects (I) and (II)"

This evaluation covers two projects (Phase 1 and Phase 2) completed as part of the Philippine Provincial Cities Water Supply Project promoted on a full-scale from the second half of the 1980's under the system of the Water District with an ODA LOAN. A Third-party Evaluation was conducted (by the International Development Journal Co., Ltd). The on-site survey consisted of interviews of 14 households in three cities with the aim of collecting evaluation data from the viewpoint of the beneficiaries of this project.

This project has improved the water supply for city residents, making tap water available around the clock, compared to having to use either hand pumps owned by each household or depending on low-pressure from the old water supply system. As a result, beneficiaries who were interviewed, highly praised the improvement in convenience and hygiene, demonstrating that the project greatly contributed to household stability.

<Desk Evaluations>

(1) India "Tamil Nadu State Micro Hydro Power Stations Construction Project"

This project is to build small generators downstream of three existing dams in the Tamil Nadu State in India, and to use the idle head of each dam to generate 70 GWh annually, thereby improving the power supply in the state. The ODA LOAN covers foreign-currency expenditures for the procurement of related equipment for this project.

Through this project, idle resources were efficiently utilized as planned and expansion of power generation capability was also brought about. Incidentally, through this project, actual power generation reached 69 GWh in 1995.

(2) The Republic of Indonesia "Construction Equipment Reconditioning and Rehabilitation Project"

This project transfers the construction equipment (231 units) owned by the Ministry of Public Works to AMKA (state-owned enterprise AMARTA KARYA: repair and leasing of machinery for construction works, iron works) and efficiently perform its repair while promoting efficient utilization of construction machinery.

The average service life of construction machinery for which repairs have been performed has increased from 6,000 hours to 8,000 hours, and the construction machinery that used to be idle is now being used efficiently. Moreover, a repair system has been established as the result of repair shop improvements, repair machinery improvements, and technology transfers via consultants.

(3) The Republic of Indonesia "Scattered Diesel Plants & Distribution Network Project"

This project is to supply diesel generators and power distribution facilities in a total of 34 locations, 27 in Sumatra and 7 in Kalimantan, outputting a total of 31,500 kW.

This project has achieved an increase in the number of electrified villages and the electric power supply capacity, which is contributing to improved living conditions in the beneficiary areas energizing the economy, hence contributing to the development of local industries.

(4) Kingdom of Thailand "SRT Signaling Improvement and Modernization Project", "Train Dispatcher Telephone Improvement & Passenger Coaches Procurement Project"

Signaling Project aims to raise the efficiency and safety of train traffic by modernizing the aged signaling and communication systems of the SRT. The Telephone Project, a part of the Train Dispatcher Telephone Improvement & Passenger Coaches Procurement Project, aims to achieve efficient train operations, reduce train delays, and improve safety by setting up new dispatcher consoles with a DC power supply. Both projects have contributed to expanding the rail traffic volume,

raising operational efficiency, and improving safety.

(5) Kingdom of Thailand "Dao Kanong-Klong Toey Port Expressway Project (Stage II)"

The Dao Kanong-Klong Toey Port Expressway Project aims to alleviate traffic congestion in Bangkok, the capital, by building Thailand's first toll expressway. This project is to construct a 6.6-km segment of the expressway excluding the Chao Phraya suspension bridge, out of the segment of approximately 10 km from Dao Kanong to Klong Tey Port, which corresponds to the third phase of the Dao Kanong-Klong Toey Port Expressway Project.

This project was completed without any significant delay, and the number of cars passing is double the figure that was originally planned (192 million in 1997). The Port Expressway is now indispensable for Bangkok plagued by traffic congestion.

(6) Kingdom of Thailand "Sriracha-Laem Chabang Railway Project"

This project was planned and implemented to construct a switchyard and 9.3-km single track line linking Laem Chabang Port and Sriracha Station in coordination with the construction of the Laem Chabang Port, which is part of the activities to develop the Thai Eastern Seaboard.

This project is definitely contributing to freight transport via Laem Chabang Port, and of the containers handled by the Laem Chabang Port, the percentage that went on to overland transport grew from 9% in 1994 to 16% in 1996. Laem Chabang Port itself grew in 1996, accounting for more than 30% of the container handling volume in Thailand, and this project is believed to have greatly contributed to this growth.

(7) Kingdom of Nepal "Udaipur Cement Project"

This project is to construct a cement plant with an 800 t/day (clinker base) and related facilities in Jaljale, Udayapur County, east of Nepal, in order to handle rapidly rising demand for cement and to make Nepal's self-sufficiency rate for cement higher.

This project, while improving Nepal's self-sufficiency rate for cement, has also resulted in foreign currency economies through reduced cement imports, as well as new jobs (cement production during fiscal 1995/1996 was approximately 130,000 tons.)

Unfortunately, the operation rate of the facilities has failed to increase due to insufficient maintenance of the cement plant. For this reason, OECF implemented support, through SAPS, in 1997 in order to raise the operation rate, and proposed improvement measures divided into three stages.

(8) Islamic Republic of Pakistan "500kV Multan - Guddu Substations Extension Project"

This project is to expand the capacity of the Multan and Guddu Substations as a part of 500 kV No. 2 Power-Transmission Line Project that crosses Pakistan from North to South. 500 kV No.2 Power-Transmission Line Project was implemented with co-financing from the World Bank, ADB, KfW, France, and the OECF (this project).

The completion of the 500 kW No. 2 Power-Transmission Line, including this project, contributed to vastly expanding Pakistan's South-North electric power transmission. The existence of multiple electric lines has also improved the reliability of power transmission and reduced the loss rate.

(9) Papua New Guinea "Yonki Hydroelectric Project"

This project is to construct Yonki Dam on the Yonki River at the upstream of the existing Ramu I Power Station (15MW x 3 stations) located on a central part of high plateau on the Island of New Guinea. Through this construction, the imbalance of water flow has been improved in the Ramu River during the dry and rainy seasons, making it possible to add two 15MW hydraulic turbine generators within Ramu I Power Station, in order to provide stable and cheap electric power.

The project contributed to the improvement of the power configuration of the Ramu River system, and improved and stabilized the electric power supply capability in the whole of Papua New Guinea.

(10) United Mexican States "Locomotive Reconstruction Project"

Among of the 1,747 diesel electric locomotives owned by the Ferrocarriles Nacionales de Mexico (FNM) as of 1989, the Locomotive Reconstruction Project was planned for the rehabilitation of 231 locomotives that were incapacitated, but could be repaired by mounting the proper materials and equipment. This project, which corresponded to Phase I of the whole project, was to reconstruct 60 locomotives.

60 locomotives rehabilitated by the project contributed to long-distance transportation in the railway sector of Mexico.

4. Status of Cooperation with Japan International Cooperation Agency (JICA)

Among the projects that are the subject of the evaluations in this report, eight were implemented based on Feasibility Studies (F/S) carried out by JICA. The projects were: Republic of Indonesia "Lankeme Irrigation Project", People's Republic of China "Lianyungang Port Expansion Project (I) ~ (VI)", People's Republic of China "Zhengzhou-Baoji Railway Electrification Project (I) ~ (V)", People's Republic of China "Wuhan Tian He Airport Construction Project", Republic of the Philippines "Provincial Cities Water Supply Projects (I) and (II)", Kingdom of Thailand "Sriracha-Laem Chabang Railway Project", Republic of Indonesia "Construction Equipment Reconditioning and Rehabilitation Project", and Kingdom of Nepal "Udaipur Cement Project"

As part of the cooperation with JICA regarding post-evaluations, a joint evaluation of the Lankeme Irrigation Project in Indonesia was performed, as mentioned earlier. As a result, the cooperation extended beyond the usual upstream project cycle flow of [F/S by JICA Project implementation with ODA LOAN], by including cooperation in the downstream project cycle flow, through the dispatch of JICA specialists to participate in the operation and maintenance of facilities following the project's completion. This extended cooperation has been seen to be effective in maximizing the project's effectiveness.