

Country Project	Kingdom of Thailand SRT Signalling Improvement and Modernization Project (hereinafter referred to as Signalling Project)	
Borrower Executing Agency	Train Dispatcher Telephone Improvement & Passenger Coaches Procurement Project (See Note. Hereinafter referred to as Telephone Project) State Railway of Thailand (SRT) State Railway of Thailand (SRT)	
Exchange of Notes Loan Agreement	Signalling Project June 1983 September 1983	Telephone Project July 1984 September 1984
Loan Amount Loan Disbursed Amount	¥12,800 million ¥7,433 million	¥1,771 million ¥524 million
Project Summary and OECF Portion		
The signalling project aims to raise the efficiency and safety of train traffic by modernizing the aging signalling and interlocking and block systems of the SRT. The telephone project aims to achieve efficient train operations, reduce train delays, and improve safety by setting up new dispatcher consoles and DC power supply. The ODA loan covers all the foreign-currency costs related to the two above-described projects.		
Comparison of Original Plan and Actual	<u>Plan</u>	<u>Actual</u>
(1)Project Scope <u>Signling Project</u>		
1 Installation of color light signals	328 stations	109 stations
2 Improvement of block system	223 sections	116 sections
3 Consulting services		Same as left
Bidding management, execution and maintenance, settlement of mid and long-term system modernization plan		
<u>Telephone Project</u>		
1 Installation of dispatcher console	13 places	14 places
2 Installation of DC power supply	11 places	14 places
3 Installation of slave telephone with power unit	518 sets	518 sets
(2) Implementation Schedule <u>Signalling Project</u>		
Selection of consultant	1983/ 7~1983/ 9	Selection of consultant 1983/11~1984/ 9
Bidding preparation	1983/10~1983/12	Bidding preparation 1984/10~1988/ 5
Bidding evaluation/contract	1984/ 1~1984/ 7	Bidding evaluation/contract 1988/ 5~1988/12
Installation/execution of materials and equipment	1984/10~1988/ 1	Installation/execution of materials and equipment 1989/ 4~1994/ 6
Consulting service	1984/10~1988/ 2	Consulting service 1989/ 4~1994/ 7
<u>Telephone Project</u>		
Selection of consultant	1984/ 6~1984/ 9	Selection of consultant 1984/ 6~1985/ 9
Bidding preparation	1984/10~1984/12	Bidding preparation 1985/10~1986/12
Bidding evaluation/contract	1985/ 1~1985/ 5	Bidding evaluation/contract 1986/12~1987/ 7
Installation/execution of materials and equipment	1985/ 7~1987/ 4	Installation/execution of materials and equipment 1987/12~1990/11
Consulting service	1985/ 7~1987/ 4	Consulting service 1988/ 1~1991/ 2
(3)Project Cost <u>Signalling Project</u> (Exchange rate : 1 Baht=¥10.0)		(Exchange rate: 1 Baht=¥4.9)
Total project cost	¥16,760 million	¥8,630 million
Foreign currency portion (covered by ODA loan)	¥12,800 million	¥7,433 million
Local currency portion	396 million Baht	258 million Baht
<u>Telephone Project</u> (Exchange rate: 1 Baht=¥10.1)		(Exchange rate: 1 Baht=¥4.5)
Total project cost	¥2,182 million	¥644 million
Foreign currency portion (covered by ODA loan)	¥1,771 million	¥524 million
Local currency portion	41 million Baht	23 million Baht

Analysis and Evaluation

(1) Project Scope

The signalling project made a partial revision of the project scope shortly after its implementation began. Since the project's total local-currency cost (Baht) rose above the ceiling set by Royal Thai Government due to the Yen appreciation, the project scope was further reduced. The reduction of the project scope was done by dividing the project into packages based on the priority level, and the packages with the highest priority were executed without delay. The telephone project was, by and large, implemented according to plan.

(2) Implementation Schedule

The signalling project was completed with a 77-month delay. This delay was due to a delay in the bidding preparation stage and a major delay caused by the inadequate capability of the contractors in the construction stage. The completion of the telephone project was delayed by 46 months for similar reasons.

(3) Project Cost

The costs of both projects fell within the allocated budget. The foreign-currency (Yen) cost of the signalling project turned out to be considerably lower than the planned amount, due largely to the reduction in the project scope due to local-currency ceiling restrictions.

(4) Implementation Scheme

There were no particular problems in the case of the executing agency (SRT). Nor were there major problems in the ability of the consultants. However, there were problems in the case of the contractors, both in terms of technology and materials management, during the construction stage, and which became a major cause for construction delays.

(5) Operations and Maintenance

Maintenance of signalling equipment is performed by maintenance engineers in the Signalling and Telecommunications Department of SRT. That of dispatcher telephone equipment is done by Mechanical Engineering Department. No problems were detected at the time of this evaluation.

Project Effects and Impacts

Both projects have solidly contributed to expanding the rail traffic volume, raising operational efficiency, and improving safety.

Notes

Of the projects that were evaluated, "Telephone project" was about one aspect of the Train Dispatcher Telephone Improvement & Passenger Coaches Procurement Project, namely dispatching telephone improvement. The listed figures, such as the approved loan amount, correspond to the telephone project part.

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