

Equipment Supply for Maritime Sector Training Program

Report Date: June 2000
Field Survey: May 2000

1. Project Profile and Japan's ODA Loan

(1) Background

When this project was first planned in 1985, the Indonesian economy was enjoying rapid growth and there were also signs of high growth for its maritime sector. At the same time there were growing international calls for the nation to improve the quality of its seamen (navigation officers and engineers) in line with the STCW (Standards of Training, Certification and Watchkeeping for Seafarers) Convention that took effect in 1984 with the aim of improving international maritime safety. To this end the Indonesian government drafted its "Manpower Development and Training Master Plan" as part of its comprehensive program to develop the nation's maritime sector, and asked for co-financing from the Japan Bank for International Cooperation (hereinafter referred to as JBIC), the World Bank and the Dutch government for implementing this plan.

(2) Objectives

This project was to supply the necessary equipment for training Indonesian seamen as part of the nation's master plan for developing manpower for the maritime sector. The project also had the aim of raising the standards for this training to the international level stipulated in the STCW Convention that took effect in 1984.

(3) Project Scope

The scope of this project involves providing four mercantile marine colleges (Jakarta, Semarang, Ujung Pandang, Surabaya) with simulators and other training equipment needed to meet the conditions of the STCW Convention. This project also provided consulting services regarding the development of systems for the mercantile marine colleges set to receive the equipment.

(4) Borrower/Executing Agency

Republic of Indonesia / Directorate General of Sea Communications, Ministry of Communication

(5) Outline of Loan Agreement

Loan Amount/Loan Disbursed Amount	¥4,128 million / ¥3,750 million
Exchange of Notes/Loan Agreement	December 1985 / December 1985
Terms and Conditions	Interest rate: 3.5%, Repayment period: 30 years (10 years for grace period), Partial Untied
Final Disbursement Date	June 1993

2. Results and Evaluation

(1) Relevance

With the increase in international demand for seamen, the number of Indonesian seamen working on foreign vessels has risen dramatically over the past 10 years. This has resulted in the pressing need to develop seamen that are qualified to work on such an international scale.

The 1995 revision of the STCW Convention resulted in even more detailed regulations of the standards for training seamen, and compelled or strongly recommended the use of various simulators. There have been calls to implement education and training in strict compliance with this convention so that Indonesian seamen will be recognized internationally as having the needed skills. In light of these needs, the stated aim of this project to supply training equipment mainly including simulators has been deemed as being very relevant.

However, the planned co-financing was not executed due to the successive suspension of projects by the World Bank and the Dutch government. The Japan side made an effort to implement the comprehensive plan, including modifications to the plan such as changes to specifications for schools slated to receive the simulators, implementation of new ODA loan projects, and collaboration with the Japan International Cooperation Agency (hereinafter referred to as JICA).

(2) Efficiency

There were no major problems in terms of project supervising or the level of skill held by the executing agency. However, actual implementation was delayed by 15 months as time was needed to reconsider the plan after the World Bank cancelled its financial assistance. Costs for procuring the equipment was reduced by more than 10%. The equipment manufacturers provided excellent after-care service and their performance level rated highly. However, the consulting services were not fully utilized and many areas had to be covered by technical assistance from the Dutch government and JICA.

(3) Effectiveness

The three national mercantile marine colleges¹ obtained the minimum training equipment that could provide education meeting international levels by this project. The provided equipment was actively used and the simulators, in particular, had a major educational effect. The reasons for this success were the provision of highly needed equipment and the technology transfer on utilization and maintenance of the equipment by the long-term JICA experts dispatched to each school. However, the issues of actual on-board training and better collaboration between national and private schools were not adequately addressed due to the cancellation of the co-financing.

The direct beneficiaries of this project were the students who took the courses provided by the three national mercantile marine colleges that were able to make use of the equipment and materials obtained by this project. This number is expected to have totaled around 36,000 students, which accounts for roughly 40% of the currently active Indonesian seamen plus half of staffs. .

¹ Materials provided to Surabaya Mercantile Marine College were very limited, consisting of some audiovisual and other such equipment, as this college lost its status as a seamen's training school at the early stage of project implementation.

From the following facts which show the Indonesian seamen's capability has been internationally recognized, it is believed that the desired goal of reaching a level of education that meets the international standards stated in the STCW Convention (before the revision) has been achieved for the most part.

- i) Most of the equipment has been actively used in line with a curriculum that meets the standards put forth by the STCW Convention.
- ii) The quality of graduates has been greatly improved over the past 10 years.
- iii) The number of Indonesian seamen actively working on foreign vessels has been rapidly increasing.

(4) Impact

The number of maritime accidents caused by human error in the territorial waters surrounding Indonesia has decreased by half over the past ten years. It is also believed that the reduction in maritime accidents is linked to a reduction in ocean contamination. However, what direct impact this project has had in these areas cannot be quantitatively verified due to various restrictions such as a lack of data.

Among the direct beneficiaries of this project are some 26,000 Indonesian seamen currently working aboard foreign vessels. It is believed that these workers are earning a total of between 340 million and 360 million dollars every year, and it is said that at least half of this money is sent home to Indonesia or to bring them home directly. Therefore, this project has contributed to the Indonesian economy by creating the opportunity for the country's seamen to earn foreign currency incomes.

(5) Sustainability

The budget for maintaining the equipment was very small, but in most cases the equipment was kept in comparatively good condition thanks to support from JICA experts and voluntary cooperation from the equipment manufacturers. However, nine years have passed since the purchase of this equipment and thus many faults have started to occur, especially regarding the electrical equipment. Each school has engineers assigned to maintain the equipment. However, these engineers do not have the advanced knowledge and skill required to adequately repair the various simulators. Therefore, JICA plans to start a 3-year technology transfer program this fiscal year that involves the dispatching of experts and technical training with the aim of improving the operation and maintenance.

The budget allotted to the schools from the national government is limited. Therefore, the schools have had to rely on revenue from short-term training courses and donations from former graduates to finance the repair and replacement of equipment. Still, the budget for maintaining the equipment is very small and there is the real possibility that the equipment will not be adequately maintained without external support.

IMO(International Maritime Organization) is currently appraising the seamanship training and certification systems of the member countries to determine whether or not they properly satisfy the requirements of the amended STCW Convention. If Indonesia is unable to be approved as a country that satisfies these requirements, the nation's seamen will no longer be able to work on foreign ships. Therefore, obtaining this IMO approval is a pressing issue not only for this project, but for the entire maritime training system in Indonesia.

3. Lessons Learned

Possible cooperation with JICA experts should be considered for projects that require special technology.

While consulting services were not adequately used in this project, JICA experts dispatched to the mercantile marine colleges and to the Training Agency of the Ministry of Communication successfully provided important technology transfers in regards to effective use and maintenance of the equipment. For projects that require special technology such as education for seamen, active cooperation with JICA schemes for dispatching experts should be sought as such schemes are able to continuously provide personnel from various public organizations and can be quite effective.

Comparison of Original and Actual Scope

Item	Plan	Actual
Project Scope Supply of education and training equipment <ul style="list-style-type: none"> • Navigating simulator • Machine simulator • Radar/ARPA simulator • Radar training equipment • Other equipment 	Installed at one college Installed at four colleges Not planned Not planned 529 units	Installed at two colleges Installed at two colleges Installed at two colleges Installed at one college 364 units
Consulting service <ul style="list-style-type: none"> • Japanese consultant • Indonesian consultant 	127M/M 21M/M	127M/M 35M/M
Implementation Schedule Start ~ Completion (no. of months)	Nov. 1986 ~ Mar. 1990 (40 months)	Feb. 1988 ~ Dec. 1991 (46 months)
Project Cost Foreign currency Local currency Total Exchange rate	¥4,128 million ¥444 million ¥4,572 million 1 Rp. = ¥0.2320	¥3,754 million ¥236 million ¥3,990 million 1 Rp. = ¥0.0727