

## Indonesia

### Maritime Transportation Sector Loan in Eastern Indonesia

Report Date : October 2002

Field Survey : July 2001

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



Project Location Map



Torobulu Ferry Terminal

#### 1.1 Background

In the Fifth Five Year National Development Plan (REPELITA V)(1989-1993), the government of Indonesia prioritized poverty eradication, exploration of natural resources and acceleration of mutual communication in the development of eastern Indonesia. REPELITA V emphasized the importance of developing domestic maritime transport to meet these ends, because of the geographical characteristics of this area. Although maritime transport already played an important role in the region, there were various shortcomings, not only in infrastructure such as ferry terminals and port facilities, but also in equipment for navigation safety and in availability of an adequate crew training school. In order to cope with these problems effectively, it was important to implement various projects, including the development of ferry terminals, small port facilities, various equipment for maritime navigation and a crew training system, as a package program.

#### 1.2 Objectives

To improve the maritime transportation sector in eastern Indonesia and to promote the development of eastern Indonesia, as prioritized in REPELITA V, by implementing the following subprograms in order:

- a) Rehabilitation and Construction of ferry terminals
- b) Rehabilitation and Construction of port facilities.
- c) Replacement of supporting vessels for aids to navigation
- d) Development and Improvement of marine aids to navigation.
- e) Improvement of Surabaya Rating School

### 1.3 Project Scope

- (a) Rehabilitation and construction of nine ferry terminals in Eastern Indonesia
- (b) Rehabilitation and construction of facilities such as jetties of six ports in Eastern Indonesia
- (c) Replacement and modernization of supporting vessels for aids to navigation (4 units) in Eastern Indonesia
- (d) Development and improvement of visual aids to navigation in Eastern Indonesia
- (e) Procurement of equipment in Surabaya Rating School in order to improve training for seafarers engaged in inter-island transportation in Eastern Indonesia

### 1.4 Borrower/Executing Agency

- Borrower: The Government of the Republic of Indonesia
- Executing Agency for Sub-program (a) as shown in (1.3) above: The Directorate General of Land Communications (DGLC: formerly the Directorate General of Land Transport and Inland Waterways)
- Executing Agency for Sub-programs (b) to (e) as shown in (1.3) above: the Directorate General of Sea Communications (DGSC)

### 1.5 Outline of Loan Agreement

Loan Amount	8,499 million yen
Loan Disbursed Amount	6,809 million yen
Exchange of Notes	September 1991
Loan Agreement	September 1991
Terms and Conditions	
Interest Rate	2.6 % p.a.
Repayment Period (Grace Period)	30 years (10 years)
Procurement	General Untied (Partially Untied for Consulting Services)
Final Disbursement Date	October 1999

## 2. Results and Evaluation

### 2.1 Relevance

The project objective was to improve the maritime transportation sector in Eastern Indonesia, as well as to improve living standards nationwide and build the foundation for national development, by implementing five sub-projects.

The development of a sea transport network, including ferry terminals and small ports in Eastern Indonesia, was in line with the poverty reduction and trade growth policies outlined in REPELITA V (1989 – 1993), and had a strong correlation with policies promoting utilization of natural resources and the unification of the Indonesian population.

Local inhabitants had been using maritime transport in isolated, remote areas as the primary

means of transport for safe, quick and economical delivery of cargo, and for conveying passengers. The above policies continue to be a part of the current national development policy, PROPENAS (2000 – 2004), which highlights the importance of “the promotion of the production and distribution activities in potential areas especially Eastern Indonesia” through the improvement of accessibility in remote areas. This project was relevant to and consistent with REPELITA V at the time of appraisal, and it remains relevant to and consistent with the current goals of PROPENAS.

After the commencement of implementation of this project, JICA carried out two master plan studies on the development of ferries and ports covering the whole nation, “The Development Study on the Nationwide Ferry Service Routes in the Republic of Indonesia” in October 1998 and “The Study on the Port Development Strategy in the Republic of Indonesia” in March 1999. The former particularly emphasized the development of ferry routes and terminals in the east part of Eastern Indonesia -- Maluku and Irian Jaya -- an area this project did not focus on. The latter pointed out the importance of small port development, particularly in Eastern Indonesia, where no other inexpensive transport means were available for passengers and everyday goods. It recommended the further development of port facilities in remote areas with government funding, since such projects would not be implemented with commercial finance.

The two master plan studies recognized the significance of the objectives of this project at the level of the entire region.

## **2.2 Efficiency**

### **(2.2.1) Project Scope**

#### **a. Ferry Terminal**

Of the nine ferry terminals in the original plan, major changes in project scope were made at two terminals.

One was a location change for Tolandona terminal, in southeast Sulawesi. The reason for the change was that the construction of a new terminal at Tolandona would have become a hindrance to the daily activities of fishermen. As a result of the site surveys, Wara, located about eight kilometers south of Tolandona, was selected as the new terminal site.

The other change was made at the Luwuk terminal, where reconstruction work on all of the main facilities except for the movable bridge was cancelled because the existing facilities were still sufficiently functional. As for the other terminals, the project was principally implemented based on the original scope.

#### **b. Ports**

The construction of the six small ports was generally implemented based on the original scope, though there were some minor changes in accordance with local characteristics, including seabed conditions and the size of vessels in operation.

#### **c. Supporting Vessels**

The project scope included procurement of four supporting vessels of about 250 DWT, which were to install and maintain the navigation aids. The scope was actually implemented as originally planned.

d. Aids to Navigation

The original project scope included installation of navigation aids and a monitoring system for lighting, and organization of workshops. This component was implemented as originally planned.

e. Surabaya Rating School

The original project scope included the procurement of equipment for navigation aids, survival training and fire extinguishments. There were no significant changes in the actual scope.

(2.2.2) Implementation Schedule

The project was originally scheduled for the period from February 1993 to December 1995, but was actually implemented between December 1994 and March 1999. The delay in starting the project was caused mainly by a delay in coordination of procedures among the responsible sub-sections of the Ministry of Communications. The actual construction period was 1.5 year longer than scheduled due to the following problems, encountered during ferry terminal construction:

- The soil condition at the ferry terminal project sites was unexpectedly poor, requiring additional piling work.
- The project was implemented exclusively by local contractors, some of which were joint operations consisting of three companies. Owing to this alignment, there were frequent problems involving financial difficulties, as well as disagreements among the companies in selection of sub-contractors, manufacturers, and preparation of construction equipment.
- The 1997 economic crisis also caused cash flow shortages for the contractors.

In the course of numerous meetings and daily monitoring, DGLC repeatedly requested that the contractors make up for the delays, and consequently allowed the contractors to increase the number of working units and construction equipment.

(2.2.3) Project Cost

The project cost at the time of project appraisal was 9,999 million yen, while the actual cost was 7,633 million yen. The cost under-run resulted mainly from construction cost reductions for ferry terminals and small ports. According to the implementing agency, the reason for the cost reduction was that the contractors not only had branch offices, but also owned their own equipment and quarry sites filled with construction materials. Devaluation of the local currency against the yen from the signing of loan agreement to the tender was another major factor of cost reduction, since all the construction works were carried out by local contractors.

## 2.3 Effectiveness

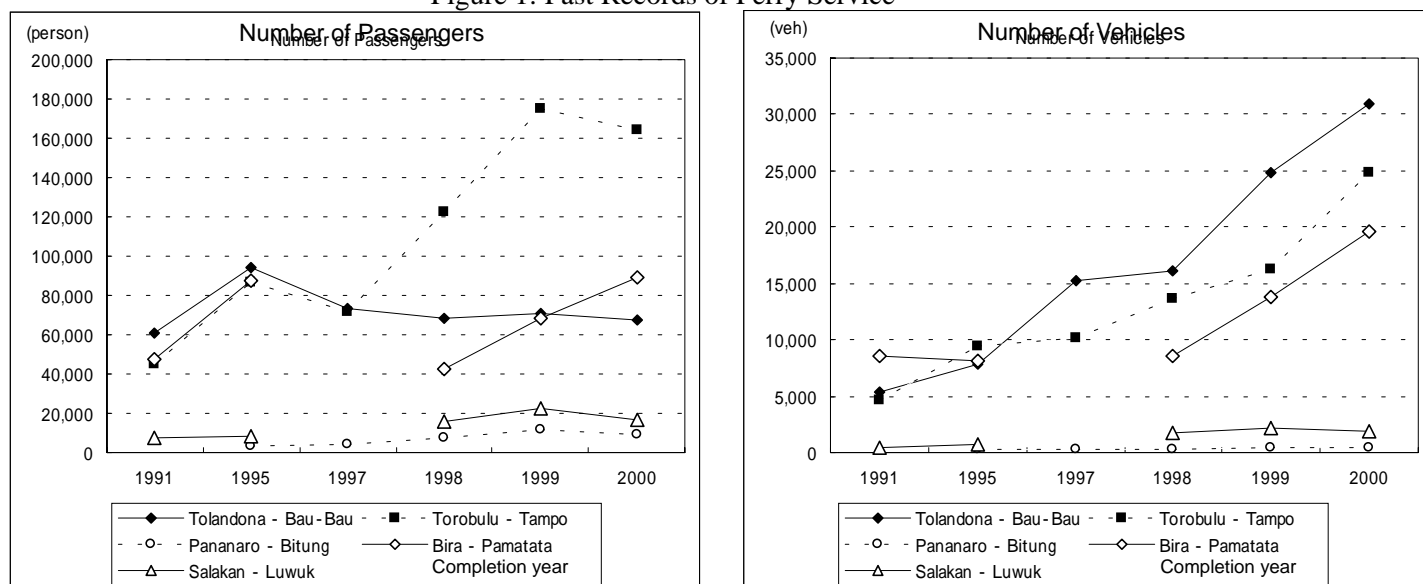
### (2.3.1) Maritime Transport Activities

The project has achieved more active use of maritime transport.

#### a. Ferry Terminal

Ferry services shuttle between terminals on different islands as a part of a surface transport system that connects road systems on both sides of sea. As shown in Figure 1, the number of vehicles using the ferry routes related to terminals rehabilitated or constructed by the project has increased significantly. This trend is observable particularly for the Tolandona – Bau-Bau, Torobulu – Tampo and Bira – Pamatata routes; i.e., growths are more than 30% per annum from completion to 2000, while ferry services for the whole country have experienced growth rates of only 6.8% per annum for 1998-2000. The number of passengers on most of these ferry routes after project completion has also risen more sharply than the national totals.

Figure 1: Past Records of Ferry Service

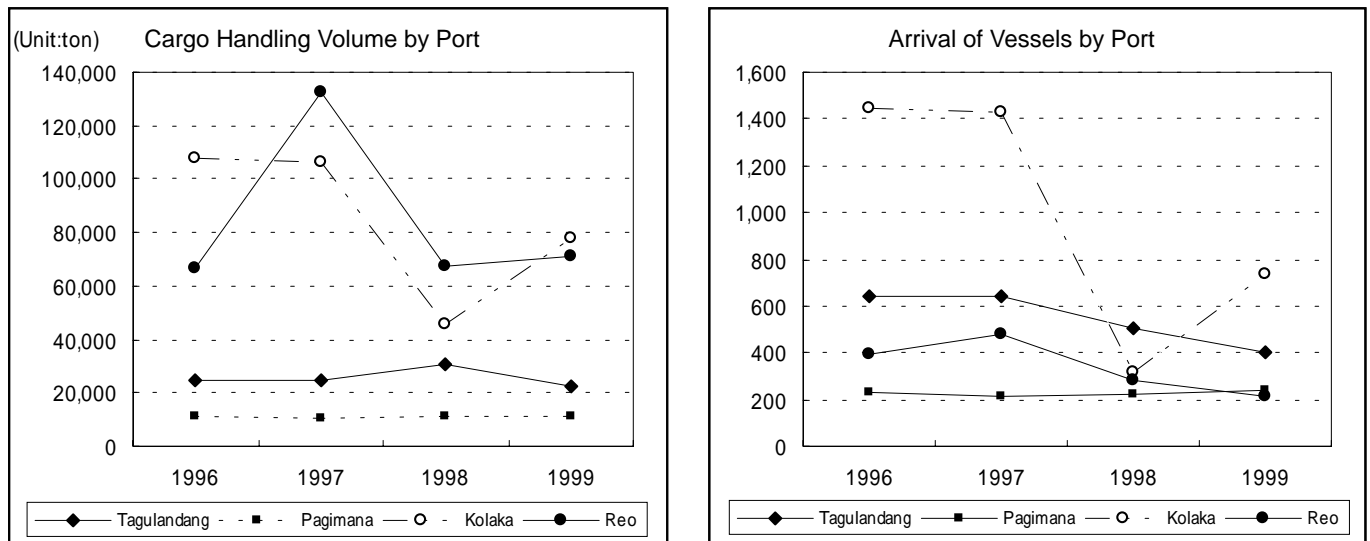


Source: DGLC

#### b. Ports

The number of vessels and the cargo handling volume of the port facilities under this project (not including the ferry terminals mentioned in a. above) have shown rather stagnant growth since project completion in 1996, a common tendency for small ports all over the country. In the short term, decreases after 1997 were maintained or recovered the following year. This can probably be attributed to the Asian financial crisis in 1997, although relevant data are not available. The port component of this project, however, presumably had positive impacts on local economic activities, as mentioned in Section 2.4.2., as well as non-quantifiable positive socio-economic impacts on the regions that showed a growth rate higher than the national average, as is mentioned in Section 2.4.1.

Figure 2: Past Records of the Project Ports



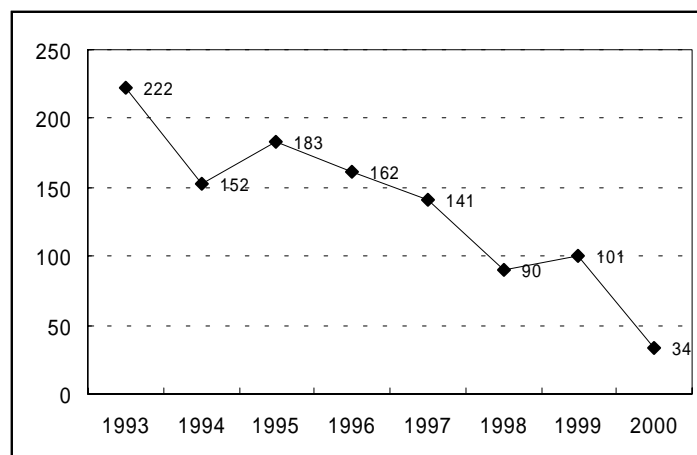
Source: DGSC

### (2.3.2) Maritime Transport Accidents

The figures for maritime accidents from 1993 to 2000 are shown in Figure 3.

The number of accidents has declined as a result of steady development of the navigation system, based on the master plan for navigation aids development in 1985. This decline has been accelerated since 1997, when navigation aids were installed under this project. The importance of safety in navigation had been recognized by the DGSC since the 1970's. After a tragic maritime accident claimed the lives of 338 victims in 1996, the DGSC focused its attention more intensively on the development of navigation aids, a telecommunication system and a more rigorous and thorough checking system for navigation safety of vessels, including foreign and imported ones. All these national efforts, including this project, are thought to have contributed greatly to the reduction in the number of accidents.

Figure 3: Maritime Transport Accidents in Indonesia



Source: DGSC data

## 2.4 Impact

### (2.4.1) Socio-economic Impacts

Regional development, in terms of improved socio-economic activities in the project area, was an anticipated impact. The completion year for each subproject differs, but growth rates of GRDP for the provinces where the project was completed in 1996 are, without exception, higher for the years 1996 through 1998 than the national average. Those provinces are Irian Jaya, East Nusa Tenggara, North Sulawesi and Southeast Sulawesi. In terms of employment, two have higher growth rates, while the other two have more or less the same growth rate as the national average in the years between 1995 and 1997. Although it is difficult to assess the extent to which the project has influenced the GRDP or the employment situation, some contribution to growth is, nonetheless, quite likely. As for the provinces where the facilities were completed in 1998 or 1999, statistical data are not yet available. (Refer to Table 1)

Table 1: Socio-economic Indicators

Province	GRDP (at 1983 constant Price: million Rp.)			Employee (1000persons)		
	1996	1998	Rate of Growth	1995	1997	Rate of Growth
South-East Sulawesi	669,001	664,078	-0.4%	615,631	742,417	9.8%
North Sulawesi	1,532,013	1,569,039	1.2%	1,023,040	1,108,780	4.1%
South Sulawesi	4,065,370	4,014,098	-0.6%	2,610,882	3,023,152	7.6%
Central Sulawesi	948,278	953,630	0.3%	812,686	937,470	7.4%
East Nusa Tenggara	1,150,943	1,154,885	0.2%	1,628,710	1,764,615	4.1%
Irian Jaya	2,992,882	3,617,788	9.9%	857,666	990,255	7.5%
Indonesia	177,341,963	161,164,958	-4.7%	80,110,060	87,049,756	4.2%

Source: Statistical Yearbook Indonesia 1999

### (2.4.2) Impacts on the Economic Activities

According to the ferry terminal office, the Torobulu and Tampo ferry terminal projects have had a stimulating effect on the transport of agricultural products to and from Muna Island, contributing to an increase in agricultural production. The new terminal, having greater capacity, allows large vehicles to travel easily to the island.

Kolaka Port has facilitated a direct connection between Makassar and Surabaya, and has promoted the development of commercial shops for consumer goods in Kolaka, a result of new cargo vessel services.

### (2.4.3) Social Impacts

On Muna Island, the road network, including the ferry terminals, has been developed in line with ferry route improvement. These improvements have contributed to better accessibility to schools and workplaces. For example, bus service, which utilizes the ferry service between

Tampo – Torobulu, has increased to two times per day between Bau-bau and Kendari.

According to the port office, the new port at Kolaka has contributed to the creation of 50 permanent positions in cargo handling and a number of temporary positions. In addition, the operation of a speed-boat service with a seating capacity of 160 has started between Kolaka and Siwa, providing better mobility for residents.

#### (2.4.4) Environmental Impacts

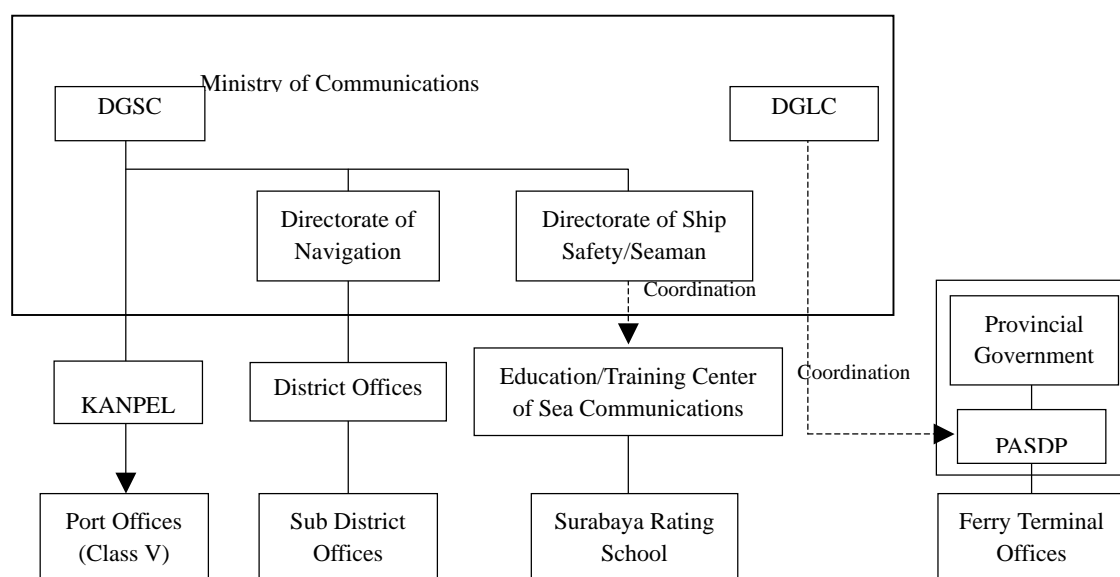
According to the DGLC, the project generated minor water pollution during the construction period, but this was not serious. No problems were reported after completion.

## 2.5 Sustainability

### (2.5.1) Organizations for O&M

At the time of project appraisal, the organizations responsible for operation and maintenance related to this project belonged to the Ministry of Communications (MOC). The regional office of the Directorate General of Land Communications (DGLC) was responsible for the entire land and ferry transport system, the Directorate General of Sea Communications (DGSC) was responsible for the navigation system, regional MOC offices were in charge of small ports, and the Surabaya Rating School, affiliated with MOC as part of the Education and Training Center of Sea Communications, was in charge of crew training. In response to a 1999 Government Decree pertaining to local government, the organizations related to this project have been in the process of decentralization since the beginning of 2001.

Figure 4: Organization Chart of Institutional Framework



#### a. Ferry Terminals

Ferry terminals are operated and maintained by the relevant ferry terminal offices under the



supervision of PASDP (provincial governments), which took over the responsibilities of the regional transport offices in accordance with the decentralization policy.

The ferry services are operated by PT.ASDP, a state-owned ferry company, and by several small private companies.

b. Ports

There are approximately 650 public ports in the country, of which 112 main ports are administrated and operated by the four national port companies. The rest are administrated by either the Regional Commercial Port Office or the Regional Non-Commercial Port Office (KANPEL), under the supervision of the Directorate General of Sea Communications (DGSC). All of the ports in this project belong to the latter group. Since KANPEL is now under the process of handing over responsibilities to the corresponding provinces, all the administration and O&M (operation and maintenance) works for the project ports will be handled by the provincial governments by May 2002.

c. Supporting vessels and equipments for aids to navigation

In spite of the decentralization policy, there is no change in the O&M agency's responsibility for the navigation system, in view of the national importance of navigation. The supporting vessels and equipment for navigation aids in this project are operated and maintained by district or sub-district navigation offices under the supervision of the Directorate of Navigation.

d. Equipment for Surabaya Rating School

The equipment for seamen's training, procured through the project, are used and maintained by the Surabaya Rating School as originally planned. The Surabaya Rating School and the Barombong School are state-run institutes for the training of seamen for coastal ships. Both of these schools were supervised by the Education and Training Center of Sea Communications at the time of appraisal. Now, both rating schools are supervised by the Education and Training Agency, MOC. As for the training of seamen for ocean liners, there are three mercantile maritime colleges, in Jakarta, Semarang and Makassar.

(2.5.2) Technical Capacity

The survey mission visited the project sites at Torobulu ferry terminal and Kolaka port in Southeast Sulawesi. The Torobulu ferry terminal is appropriately maintained and functioning effectively at present. The ferries, which are operated by the state company, make two round trips per day, servicing Torobulu, southeast Sulawesi and Tampo, Muna Island.

At the Torobulu terminal, eleven persons are engaged mainly in operations and routine maintenance. There are six technicians responsible for checking and maintaining the terminal facilities, including checking oil pressure for the movable bridge, maintaining the hydraulic system and painting of metal parts. Although minor damage can be seen on the causeway surface, owing to frequent use by heavy trucks, the main part of the terminal facilities is in good working condition. The old terminal still exists, but is designated for emergency purposes, since its

facilities have deteriorated and it is too narrow to accommodate heavy vehicles.

At the newly constructed Kolaka Port, although the causeway had sunk as much as five centimeters because of inadequate foundation piles at the time of construction, no further subsidence has been observed since two years ago. The wharf itself is still new and functions without any problems. At present 22 persons are working in the port on operations and maintenance (O&M).

As for the maintenance framework, KANPEL is currently preparing a maintenance program for all ports located in the region. Owing to budget shortages, it appears that sufficient maintenance has not been provided. Since the management of all the ports will be transferred to the provincial government, their O&M management capabilities, especially their technical and financial capacity, will become more important.

#### (2.5.3) Current Status of Ferry Terminals Damaged by Natural Disasters

According to a report of SAPS (JBIC's Special Assistance for Project Sustainability) research activity, the ferry terminals at Salakan and Bira were heavily damaged to an unserviceable degree by a large-scale earthquake in May 2000 and extraordinary high waves in June 2000, respectively, which were beyond the design scale of structure in both cases. Due to heavily damaged ferry terminals condition, the DGLG has started to construct temporary facilities or minor recovery works by their own budget.

#### (2.5.4) Financial Status

Figure 5 shows income and expenditure in 1999 for selected ferry terminals (scope a.). The annual operating revenue ranges from Rp.4 million to Rp.42 million, whereas expenditures range from Rp.60 million to Rp.100 million. In the case of Tambo, the annual expenditure is 17 times higher than the annual income. As a result, all the terminals accumulated large operating deficits in 1999. Although revenues seem to have increased in 2000, they have not yet reached a level high enough to cover operating costs.

As for the ports (scope b.), revenues and expenses are accounted for by the corresponding provincial government. Therefore, the deficit portion has been covered by government subsidy. Annual expenses of Kolaka Port were 12 times higher than annual revenue for the year 1999, which is similar to the case of ferry terminals.

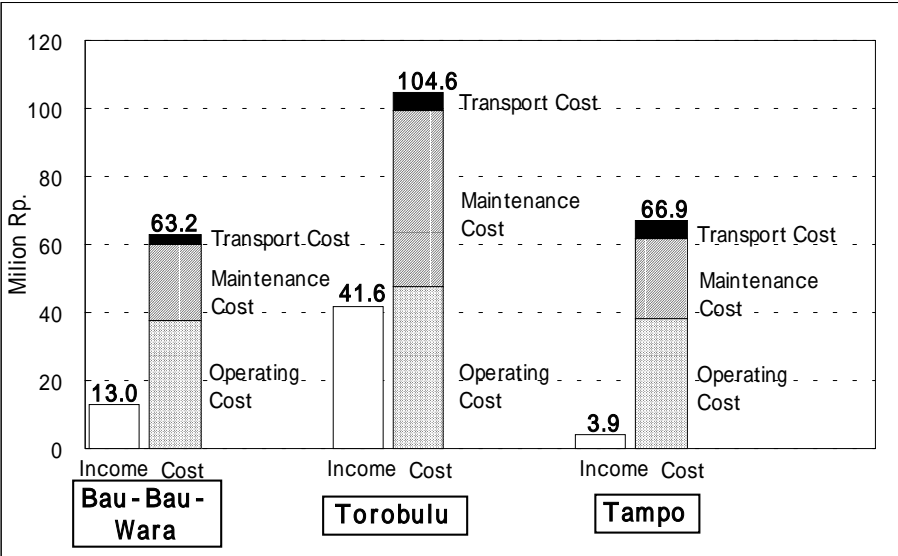
The main reason for the deficit was the fee levels, which the Central Government sets low for reasons of social welfare. It is difficult to raise fee levels in light of the potential social impact on the local area. For instance, the terminal fee at Torobulu is only Rp.500 per crossing for cars, Rp.1200 per crossing for buses and Rp.500,000 per month for ferry boats. This unprofitable situation may further strain the maintenance budget for the terminal facilities. At present, there are no effective measures for improving the financial situation at any of the terminals, and the operation of those facilities may become a heavy burden for the central and local governments.

The financial sustainability of ferry terminals and port facilities is heavily dependent on political considerations, i.e. central/provincial government subsidies and politically controlled fee incomes. This situation should be carefully monitored.

Supporting vessels and equipment for aids to navigation are currently functioning well at 27 locations in eastern Indonesia, under the management of the district navigation offices at Makassar, Manado, Kendari, Samarinda and Surabaya.

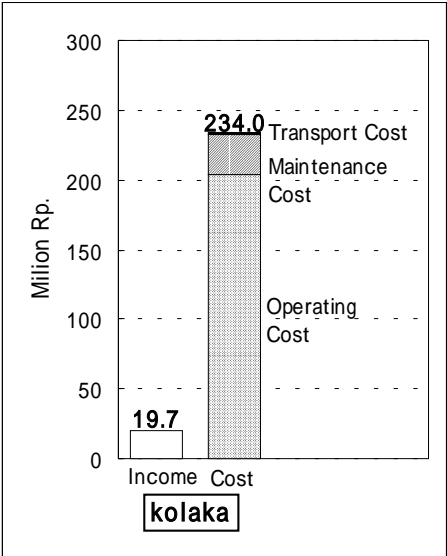
According to the Directorate of Navigation, the most sensitive sustainability issue is the financial resources for maintenance and repair. The annual budget allocated from the Central Government in 2000 was Rp. 700 million, only 20% of the required amount. As a result, there is insufficient annual inspection of the vessels and equipment, and difficulties in the procurement of spare parts and maintenance materials. In order to secure the financial resources for the maintenance of navigation aids, the central government is currently preparing to introduce a new navigation charge.

Figure 5: Income and O&M costs at selected ferry terminals in 1999



Source: DGLC

Figure 6: Annual income and expenses at Kolaka Port in 1999



Source: DGSC

### Comparison of Original and Actual Scope

Items	Original Scope	Actual Scope
Project Scope		
1. Ferry Terminal		
(1) Tolandona (Wara)		
Dolphin	6 pcs.	9 pcs.
Catwalk	74 m × 1.5 m	57.5 m × 1.5 m
Movable Bridge	7 m × 16 m	7 m × 14 m
Trestle	160 m × 6 m	18 m × 6 m
Reclamation	20,000 m <sup>3</sup>	35,293 m <sup>3</sup>
Revetment	100 m	293 m
Building	20 m <sup>2</sup>	- m <sup>2</sup>
(2) Bau-Bau		
Dolphin	6 pcs.	9 pcs.
Catwalk	90 m × 1.5 m	64 m × 1.2/1.5 m
Movable Bridge	7 m × 16 m	6.6 m × 14 m
Causeway	-	18.5 m × 4 m
Trestle	150 m × 6 m	87.5 m × 6 m
Reclamation	17,000 m <sup>3</sup>	- m <sup>3</sup>
Revetment	100 m	- m
(3) Torobulu		
Dolphin	4 pcs.	9 pcs.
Catwalk	75 m × 1.0 m	65 m × 1.2/1.5 m
Movable Bridge	4.2 m × 15 m	6.6 m × 22 m
Causeway	-	72.5 m × 4 m
Trestle	18 m × 6 m	-
Pontoon	4.2 m × 3.5 m	-
Revetment	6 m	- m
(4) Tampo		
Dolphin	4 pcs.	9 pcs.
Catwalk	75 m × 1.0 m	76 m × 1.2/1.5 m
Movable Bridge	4.2 m × 15 m	6.6 m × 22 m
Causeway	-	19 m × 20 m
Trestle	18 m × 6 m	9 m × 9 m
Pontoon	4.2 m × 3.5 m	-
Revetment	6 m	- m
Generator	- Unit	1 Unit
(5) Pananaro		
Dolphin	6 pcs.	9 pcs.
Catwalk	104 m × 0.9 m	72 m × 1.2/1.5 m
Movable Bridge	7 m × 18 m	6 m × 12 m
Causeway	182.5 m × 8 m	2,556 m <sup>3</sup>
Trestle	20 m × 10 m	-
(6) Bira		
Dolphin	4 pcs.	8 pcs.
Catwalk	32 m × 0.9 m	63 m × 1.2/1.5 m
Movable Bridge	8 m × 15 m	6 m × 16 m
Causeway	500 m × 6 m	705 m <sup>2</sup>
Reclamation	- m <sup>3</sup>	37,412 m <sup>3</sup>
Revetment	- m	605 m <sup>3</sup>
(7) Pamatata		
Dolphin	4 pcs.	7 pcs.
Catwalk	75 m × 1.0 m	76 m × 1.2/1.5 m
Movable Bridge	4.2 m × 15 m	6 m × 16 m
Causeway	-	1,055.88 m <sup>2</sup>
Trestle	18 m × 6 m	-
Pontoon	4.2 m × 3.5 m	-
Revetment	6 m	403 m

Generator	- Unit	1 Unit
Road	- m <sup>2</sup>	2,318.5 m <sup>2</sup>
(8) Salakan		
Dolphin	3 pcs.	7 pcs.
Catwalk	93 m × 0.9 m	59 m × 1.2/1.5 m
Movable Bridge	10 m × 6 m	6 m × 11 m
Causeway	104 m × 6 m	1 Ls
Causeway	60 m × 109 m	821.44 m <sup>2</sup>
Trestle	25 m × 5 m	-
Reclamation	145 m × 57 m	-
Pontoon	15 m × 7 m	-
Revetment	145 m	- m
Building	20 m <sup>2</sup>	- m <sup>2</sup>
Generator	- Unit	1 Unit
(9) Luwuk		
Dolphin	3 pcs.	- pcs.
Catwalk	74 m × 0.9 m	-
Movable Bridge	10 m × 5 m	Hydraulic Cylinder
Causeway	60 m × 6 m	-
Trestle	15 m × 6 m	-
Reclamation	100 m × 100 m	-
Pontoon	14 m × 7 m	-
Revetment	150 m	- m
Building	20 m <sup>2</sup>	- m <sup>2</sup>
Navigation Aids	- Unit	3 Unit
Generator	- Unit	1 Unit
2.Ports		
(1) Tagulandang		
Wharf	70m × 8m (Depth:-3m)	70m × 8m (Depth:-5m)
Trestle	53m × 4m	42m × 4m
Reclamation	2,400 m <sup>3</sup>	10,944 m <sup>3</sup>
Revetment	100 m	200 m
Pavement	1,650 m <sup>2</sup>	900 m <sup>2</sup>
Causeway	40 m	- m
Building	620 m <sup>2</sup>	518 m <sup>2</sup>
Utility	1 set	1 set
(2) Pagimana		
Wharf	70m × 8m (Depth:-5m)	70m × 8m (Depth:-5m)
Trestle	40m × 4m	22m × 6m
Reclamation	9,000 m <sup>3</sup>	13,150 m <sup>3</sup>
Revetment	220 m	236 m
Pavement	2,850 m <sup>2</sup>	1,878 m <sup>2</sup>
Causeway	- m	90m × 6m
Building	670 m <sup>2</sup>	518 m <sup>2</sup>
Utility	1 set	1 set
(3) Kolaka		
Wharf	70m × 8m (Depth:-5m)	70m × 8m (Depth:-5m)
Trestle	100m × 4m	102m × 4m
Reclamation	11,000 m <sup>3</sup>	19,241 m <sup>3</sup>
Revetment	250 m	260 m
Pavement	2,900 m <sup>2</sup>	1,360 m <sup>2</sup>
Causeway	270 m	- m
Building	420 m <sup>2</sup>	918 m <sup>2</sup>
Utility	1 set	1 set
(4) Reo		
Wharf	70m × 8m (Depth:-5m)	38m × 8m (Depth:-5m)
Trestle	-	142m × 6m
Pavement	400 m <sup>2</sup>	- m <sup>2</sup>
Building	220 m <sup>2</sup>	230 m <sup>2</sup>
Utility	1 set	1 set
(5) Windesi		
Wharf	70m × 8m (Depth:-5m)	70m × 8m (Depth:-5m)

Trestle	30m × 4m	18m × 6m
Reclamation	15,000 m <sup>3</sup>	3,800 m <sup>3</sup>
Revetment	240 m	200 m
Pavement	1,400 m <sup>2</sup>	275 m <sup>2</sup>
Building	670 m <sup>2</sup>	100 m <sup>2</sup>
Utility	1 set	1 set
(6) Numfor		
Wharf	70m × 8m (Depth:-5m)	70m × 8m (Depth:-5m)
Trestle	10m × 4m	22m × 6m
Reclamation	4,000 m <sup>3</sup>	7,100 m <sup>3</sup>
Revetment	200 m	230 m
Pavement	2,200 m <sup>2</sup>	275 m <sup>2</sup>
Causeway	20 m	230m × 6m
Building	670 m <sup>2</sup>	130 m <sup>2</sup>
Utility	1 set	1 set
3.Supporting Vessels	abt.250 D.W.T. 4 vessels	250 D.W.T. 4 vessels
4.Aids to Navigation		
(1) Light House	2 units	2 units
(2) Large Beacon	5 units	5 units
(3) Medium Beacon	4 units	4 units
(4) Small Beacon	6 units	6 units
(5) RLB	2 units	2 units
(6) Light Buoy	22 units	22 units
(7) Work Shop	2 units	2 units
(8) Light Group Monitoring System	1 set	1 set
5.Surabaya Rating School		
(1) Navigation Aids Equipment	9 sets	9 sets
(2) Survival Training Equipment	28 sets/dos	28 sets/dos
(3) Fire Fighting Equipment	25 sets	25 sets
(4) Deck Department Equipment	16 sets	17 sets
(5) Engine Department Equipment	74 sets	34 sets
(6) Other Equipment	3 sets	6 sets
(7) Additional Equipment	- sets	17 sets
Implementation Schedule		
1. Whole Implementation		
(1) Tender	Feb 1993	Dec 1994 – Feb 1995
(2) Evaluation	Jul 1993	Feb 1995 – Jun 1995
(3) Construction	Jan 1994 – Dec 1995	Apr 1995 – Aug 1996
2. Ferry Terminal		
(1) Construction Works	Jan 1994 – Dec 1995	May 1996 – Mar 1999
3. Ports		
(1) Construction Work	Jan 1994 – Dec 1995	Apr 1995 – Jul 1996
4. Supporting Vessel		
(1) Procurement of supporting vessels	Jan 1994 – Dec 1995	Jun 1993 – Jan 1997
5. Marine Aids to Navigation	Jan 1994 – Dec 1994	Aug 1993 – Sep 1997
6. Surabaya Rating School (Equipment)		
(1) Installed completely	Feb 1995	Oct 1996
Project Cost		
Foreign currency	6,638 million yen	2,693 million yen
Local currency	3,361 million yen	118,116 million rupiah
Total	9,999 million yen	7,633 million yen
ODA Loan Portion	8,499 million yen	6,809 million yen
Exchange Rate	1 rupiah = 0.068 yen	1 rupiah = 0.042 yen

**Independent Evaluator's Opinion**  
**on**  
**Maritime Transportation Sector Loan in Eastern Indonesia**

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**The Relevance**

The draft report is concise and covers all the relevant subjects set out in the DAC Evaluation Criteria. Improvement of the maritime transportation sector in eastern Indonesia Jakarta has very high relevance. In fact, it could be argued that the improvement maritime transportation (quantity as well as quality) will become even more important as the government trying to improve the living standards of the people in eastern Indonesia. By improving sea transportation it might be expected that flows of goods and people will increase and as a result the added value received by the people in the region will increase significantly.

Rehabilitation and Construction of ferry terminals, port facilities, supporting vessels aids to navigation enable a higher number of vehicles using the ferry routes increased significantly (grew about 30% per annum from completion to 2000). Besides, the number of passengers has also risen (sharply than the national level).

This project had positive impacts on local economic activities, and non-quantifiable positive socio-economic impacts on the regions. Furthermore, the development of the navigation system have contributed greatly to the reduction in the number of accidents.

The actual cost of the projects was much lower than the estimate at the time of appraisal (about 23.7%) resulted mainly from construction cost reduction for ferry terminal and small port, followed by, depreciation of local currency against the Japan Yen and the small change in number or location of the project.

***Impact***

The project resulted in regional development in terms of improved socio-economic activities in the project area. It might be argued that this project contributed to the higher growth of GRDP and higher growth of employment even though that it is difficult to assess the extent to which the project has influenced the GRDP or employment situation. With the new terminal, large vehicles are easily travel to and from the island. Furthermore with the new ferry and terminal, allows flow of goods especially agriculture products from and to the island faster and easier which can be expected stimulated the agricultural production. The most important impact of these project were the mobility of the people or residents increased, and accessibility to schools and workplaces improved.