

**Indonesia – Four sea ferry projects**

**Ex post evaluation report**

<b>OECD sector</b>	21040 / Water transport	
<b>BMZ project ID</b>	Project (a) 1993 65 982 (Investment in fixed assets) Project (b) 1998 66 369 (Investment in fixed assets) Project (c1) 1999 66 383 (Investment in fixed assets) Project (c2) 2004 294 (Training measure) Project (d) 2002 65 159 (Investment in fixed assets)	
<b>Project executing agency (Operation)</b>	(a) – (d) PELNI shipping company	
<b>Consultant</b>	(c) ELNA GmbH, Rellingen	
<b>Year of ex post evaluation report</b>	<b>2007</b>	
	<b>Programme appraisal (planned)</b>	<b>Ex post evaluation report (actual)</b>
<b>Start of implementation</b>	(a) February 1994 (b) July 1999 (c1) September 2000 (c2) - (d) September 2001	(a) July 1996 (b) April 1999 (c1) January 2001 (c2) August 2004 (d) September 2001
<b>Start of operation</b>	(a) March 1997 (b) December 2001 (c1) Ongoing (d) September 2004	(a) November 1999 (b) March 2002 (c1) Ongoing (d) September 2004
<b>Investment cost</b>	(a) EUR 114.0 million (b) EUR 153.4 million (c1) EUR 22.5 million (c2) - (d) EUR 81.8 million	(a) EUR 30.9 million (b) EUR 153.2 million (c1) EUR 22.5 million (c2) EUR 0.1 million (d) EUR 74.7 million
<b>Counterpart contribution</b>	(a) EUR 57.8 million (b) EUR 0.0 million (c1) EUR 13.3 million (c2) - (d) EUR 0.0 million	(a) EUR 5.3 million (b) EUR 0.0 million (c1) EUR 26.0 million (c2) - (d) EUR 0.0 million
<b>Financing, of which FC funds</b>	(a) EUR 56.2 million* (b) EUR 153.4 million* (c1) EUR 22.5 million* (c2) - (d) EUR 81.8 million*	(a) EUR 25.6 million* (b) EUR 153.2 million* (c1) EUR 22.5 million* (c2) EUR 0.1 million (d) EUR 74.7 million*
<b>Other institutions / donors involved</b>	(a) – (d) None	

\*Under a mixed financing arrangement

<b>Performance rating</b>	(a) 5 (b) 4 (c) 4 (d) 3
• <b>Relevance</b>	(a) 4 (b) 4 (c) 4 (d) 3
• <b>Effectiveness</b>	(a) 5 (b) 4 (c) 4 (d) 3
• <b>Efficiency</b>	(a) 5 (b) 4 (c) 4 (d) 3
• <b>Overarching developmental impact</b>	(a) 5 (b) 3 (c) 4 (d) 3
• <b>Sustainability</b>	(a) 4 (b) 3 (c) 4 (d) 3

**Brief description, overall objective and project objectives with indicators**

Project (a) consisted of supplying an Indonesian shipyard with materials originally for four 500-passenger ferries (passenger transport only) to be used for the regular inter-island shuttle service operated by the state-owned shipping company PELNI. This was subsequently reduced to materials to build two ferries.

Project (b) consisted of the construction and delivery of two 2,000-passenger ferries designed to transport 2,000 passengers and 22 containers (TEU) on the regular inter-island shuttle service operated by the state-owned shipping company PELNI.

Project (c) consisted of supplying replacement parts and equipment for passenger ferries operated by the state-owned shipping company PELNI, including facilities and replacement parts for the repair of safety systems. A requested training measure that was scheduled to take place during the implementation phase took account of the need to provide special training for electricians in fire safety on the ships; this training was given as the relevant facilities were fitted.

Project (d) consisted of the construction and delivery of one 3,000-passenger ferry designed to transport 3,000 passengers and 32 containers (TEU) on the regular inter-island shuttle service operated by the state-owned shipping company PELNI.

The overall objective of projects (a), (b), (c) and (d) was to improve the mobility of the people on the outer Indonesian islands. The overall objective was to have been achieved in projects (b) and (d) if the project objectives were achieved. The indicator of the achievement of the overall objective for projects (a) and (b) was that the project ships were operating in accordance with the timetable.

The project objective of projects (a), (b) and (d) was to achieve economically sound use of the financed ships. The project objective of project (c) was to maintain passenger transport between the main Indonesian islands. For all projects the indicator of the

achievement of the project objective was that the ships operated on 300 days a year. A further indicator was the average annual utilisation rate. For the project ships in projects (a) and (b) this rate was to be 60%, and for the ship in project (d) 80%. In project (c) the utilisation rate was to be at least 80% for all PELNI ferries.

In retrospect, the wording of the original project objectives and the associated indicators, in particular, was not convincing. The ships that were procured in projects (a), (b) and (d) led to a substantial increase in capacity, which needed to be taken into account. The adjusted utilisation indicators therefore refer to both the financed ships (at least 80%) and the fleet of ferries operated by PELNI (at least 70%).

### **Project design / major deviations from the original project planning and their main causes**

Deviations from the original plans established at project appraisal were mainly observed in project (a). As the Indonesian government was unable to provide the sum originally planned as the counterpart contribution, lengthy negotiations led to the contracts being changed. Instead of four ferries, only two were built and the FC financing share was reduced by a disproportionately small amount. During the implementation of project (c), it became apparent that additional training was needed in the field of fire safety switch and automation technology. Initial and further training, not envisaged at project appraisal, was carried out alongside repairs to the fire alarms. The extent of this training was slightly less than originally planned as, owing to a lack of funds, the project executing agency only carried out full repairs on the relevant equipment on 12 ferries instead of the original 14 (in two cases parts of the fire alarm and fire protection systems were repaired without special training).

### **Key results of the impact analysis and performance rating**

The financed ferries are operated by the state-owned operator PELNI. Between 1990 and 2003 there was a marked increase in the volume of passengers travelling with PELNI (1990: 2.5 million passengers; 2000: 8.7 million passengers), which led, in part, to considerable overloading. At project appraisal, given the growing numbers of passengers, the developmental problem was seen as lying in the fact that the capacity of the PELNI ferries was too small to cover the inter-island transport; the aim was for the FC projects to resolve this problem.

There has been a marked change in the underlying sectoral conditions since project appraisal. The Indonesian government has carried out considerable deregulation of ferry traffic, and the establishment of cheap airlines has led to substantial competition with long-distance ferry services on many routes. These developments resulted in a marked decrease in PELNI passenger figures (2005: 4.2 million). The greater competition led to PELNI losing passengers on commercially attractive routes. The outcome was that commercially marginal but developmentally important routes served by PELNI as part of its public mandate were no longer cross-subsidised to the previous extent. The utilisation rate of the PELNI fleet of ferries has declined distinctly in recent years (2000: 119%; 2005: 61%) and the utilisation rate of the ferries financed in projects (a), (b) and (d) has declined and is currently between 43% and 65% (passenger transport only).

The “economy class” accounts for 90% of the revenue from PELNI’s passenger transport. For socio-political reasons, the “economy tariff” has been set by the state at a low level that does not cover the costs. In return PELNI is compensated by the state (public service obligation, PSO) but the compensation payments do not suffice to cover the cost of operating the ferries, which has risen strongly in recent years as a result of the dismantling of state subsidies on the fuel required by PELNI. PELNI has been making substantial losses for some years.

PELNI has responded to the economic problems by reducing the service on the little-used routes, which include the routes to the north-eastern islands. Apart from PELNI there are hardly any private ferry operators worth mentioning that are running passenger services on these commercially unviable routes. PELNI responded to the sharp decrease in demand by reducing its ferry capacities by around 10%. This also affected a ferry financed under project (a); it was chartered to Senegal. Owing to an unsatisfactory financial situation, PELNI is no longer carrying out repair and maintenance work that is not directly required to renew the classification at the recommended intervals. Over the medium and long term, this has negative consequences for operation.

Owing to the change in the demand situation since 2001 or thereabouts, PELNI has too many ferries that are restricted to passenger traffic. The situation with regard to the ferries with container-carrying facilities financed in projects (b) and (d) is somewhat different. The average utilisation rate of the container capacities is 75%. The project ships have thus improved the quality of cargo transport services by keeping to a regular timetable, whereas the other cargo ships serving the north-east are "tramps ships", i.e. ships that do not have a fixed timetable. In retrospective, however, apart from the effect described above, the projects have not led to any major improvement in the transport links to the remote north-eastern islands of Indonesia.

A broad observation at the project level shows that all ferries financed have made economic losses. The relative operating costs of the ships financed under project (b) are far lower than those of project (a). The lowest relative operating costs are achieved by the ship financed in project (d). In that case, it was not until 2006, when there was a further increase in fuel prices, that costs were not covered.

At project appraisal, the projects were not expected to make a direct contribution to poverty reduction. By improving the mobility of women, the projects essentially have the potential to improve gender equality but this has only been partly exploited because there were no specific measures in that regard. The projects did not pursue the goal of improving the environment. Operating the ferries did not have any discernible negative impact on the environment. The projects did not pursue the goal of improving governance.

We rate the developmental efficacy of the projects as follows:

Relevance: The regular shipping service to the remote outer islands is very important. As most of these routes cannot be operated on a commercially viable basis, it was in retrospect appropriate to provide support for the state-owned shipping company PELNI, whose remit includes providing a service to the outer islands. The causality assumed at project appraisal between financing additional ferries, improving transport links to the outer islands and enhancing economic and social development on the islands was based on the assumption that there would be a marked increase in the number of passengers using the PELNI ferries, leading to potential capacity bottlenecks. However, owing to a distinct change in the conditions underpinning ferry transport in Indonesia (increased licensing of private ferry operators and the establishment of transport alternatives by cheap airlines), there was a fundamental change in the conditions underlying inter-island passenger transport compared with the situation at project appraisal, with the result that the original chain of impacts with regard to PELNI no longer applies. The main obstacle to providing an improved passenger transport service to the outer islands is no longer a capacity bottleneck on the PELNI ferries but a lack of funds to improve the commercially unviable ferry service to the outer islands. As far as cargo transport is concerned, the situation is different as there is frequently no regular cargo ship service to the remote islands. Other donors are not active in the field of maritime passenger transport, meaning that the FC projects could not be harmonised with them. The projects are integrated into the local structures as the operation of the financed ships is in line with the rules applicable to PELNI. In retrospect, the change in the underlying sectoral conditions removed the capacity bottleneck in pas-

senger transport to the outer islands identified at project appraisal. We assess the relevance of projects (a) and (c) as unsatisfactory (sub-rating 4). Taking account of the improvements in cargo transport, we assess the relevance of projects (b) and (d) as satisfactory (sub-rating 3).

Effectiveness: As presented above, when measuring the achievement of the project objective in projects (a), (b) and (d), it is necessary, in addition to the use of the FC financed ships, to take account of an appropriate overall capacity utilisation of the PELNI fleet as the targeted passenger capacity effect does not occur if existing, operable ferries are removed prematurely from service. With regard to the achievement of the project objective, a distinction needs to be made between the individual projects. In project (a) the operator chartered one of the financed ferries to Senegal. At below 50%, the utilisation rate of the second ferry was far from acceptable. We assess the effectiveness as clearly inadequate (sub-rating 5). In project (c) the 61% capacity utilisation of the fleet following the sharp decrease in the number of passengers is below an acceptable level. We assess the effectiveness as unsatisfactory (sub-rating 4). In the case of projects (b) and (d), taking account of the cargo share (containers), the utilisation rate of the FC financed ferries was below the target threshold (80%) but, at 70% for project (b) and 75% for project (d), it was still acceptable. Overall, however, the targeted capacity effect was not achieved. The 61% utilisation rate for the fleet is not acceptable. With regard to ferry transport to the outer islands, which is of particular developmental relevance, there has been no noticeable improvement in the transport service since it began, if measured in terms of landing frequencies and passenger figures. A positive assessment is given mainly to qualitative effects in the area of cargo transport (regular service). In project (d) this aspect is, owing to the greater cargo capacity, more significant than in project (b). The greater impacts achieved in project (d) are also associated with lower investment costs than in project (d) and the cost of operating the ferry in project (d) are almost completely covered by the revenue generated. We assess the effectiveness of project (b) as unsatisfactory (sub-rating 4) and of project (d) as satisfactory, although with some reservations (sub-rating 3).

Efficiency: The specific costs were appropriate in all projects (production efficiency). Allocation efficiency varies considerably. In project (a) a ferry financed from FC funds was chartered to Senegal; the utilisation rate of the second ferry is well below 50% and the specific costs of operating the ferry are to a large extent not covered. We assess the efficiency of project (a) as clearly insufficient (sub-rating 5). In project (c) the impacts were ultimately not achieved to a sufficient extent. Furthermore, the state compensation (PSO) for the economy class tariffs – which are set at a non-cost-covering level for socio-political reasons and which represents just under 90% of the revenues from passenger traffic – is not sufficient to offset the losses incurred. PELNI does not have sufficient income from other areas (cargo shipping, routes with high utilisation rates) to subsidise the loss-making transport services to the outer islands. We assess the efficiency of project (c) as unsatisfactory (sub-rating 4). In projects (b) and (d) the utilisation rate of the financed ferries, taking account of the cargo transport, is considered acceptable, with some reservations. However, the impacts achieved in project (d) are greater and are also achieved at less cost so that we assess the efficiency of project (d) as satisfactory with some reservations (sub-rating 3) and that of project (b) as unsatisfactory (sub-rating 4).

Overarching developmental impact: The overall objectives of making a contribution to the economic and social development on the outer islands of Indonesia and to reinforcing the national cohesion of the country by improving passenger transport, in particular, were realistic under the underlying conditions at project appraisal. In retrospect, it is clear that the risk of a considerable decline in demand at PELNI as a result of a liberalisation that was not clearly foreseeable at the time of the project appraisal and greater competition by the introduction of cheap airlines was underestimated. On the one hand, the change in the underlying conditions led at PELNI to excess passenger ferry capacities, resulting in unacceptably low utilisation rates for the ferries financed

with FC funds or chartering to third countries (project (a)). On the other hand, given the current underlying conditions of politically set, non-cost-covering economy class tariffs, a clear increase in the cost of fuel due to the dismantling of subsidies, and fewer opportunities for cross-subsidies (because of the high competition on the commercially viable key routes), PELNI is not in a position to expand the loss-making ferry service to the outer islands, although it is of particular developmental significance. The contribution to improving the link to the outer islands is limited to cargo transport. The contribution to the overall objective is hence far smaller than originally expected. Also taking account of the fact that one of the ferries financed was chartered abroad, we assess the overarching impact of project (a) as clearly inadequate (sub-rating 5). We rate the overarching developmental impacts of project (c) as unsatisfactory (sub-rating 4). Taking particular account of the positive effects in the field of cargo transport, we rate the overarching developmental impact of projects (b) and (d) as satisfactory but with considerable reservations (sub-rating 3).

Sustainability: In view of the tense economic situation of PELNI, there are deficiencies in the field of maintenance and repairs, which we do not consider serious enough to jeopardise the operation of the ferries financed. Given the change in the demand situation and with current excess capacities, it is inappropriate from the operational point of view to increase the use of the ferries financed in project (a) or, in the case of the chartered ferry, to redeploy it in Indonesia. The design of the ferries is not in line with current needs. We assess the sustainability of this project as unsatisfactory (sub-rating 4). In project (c) no plans were made to increase the capacities of the fleet. As we consider the risks to technical operation arising from PELNI's economic problems to be limited, we assess the sustainability of the project as satisfactory (sub-rating 3). In projects (b) and (d) the question is whether removing ferries from service in the foreseeable future would mean that PELNI would be unable to maintain the volume of transport at the present level without the ships finance under the projects, with the result that the financed ferries could be evaluated as replacement investments. However, this is not likely to occur until the period from 2009 to 2011. At that point in time the financed ships would have completed one-quarter to one-third of their lifespan, which would have to be taken into account in the evaluation. We assess the sustainability of projects (b) and (d) as satisfactory (sub-rating 3).

Taking account of the sub-ratings, we assess the developmental efficacy of project (a) as clearly inadequate (rating 5). We assess the developmental efficacy of projects (b) and (c) as unsatisfactory (rating 4). Taking particular account of the greater importance of cargo transport than in project (b), the lower relative operating costs and the greater efficiency achieved because of low investment costs, we assess the developmental efficacy of project (d) as satisfactory (rating 3).

### **General conclusions and recommendations**

Deregulation in the transport sector, which can be seen as positive, can, because of the increase in competition on routes that are to be operated commercially, create difficulties for state-owned operators with a mandate to supply routes that are commercially unviable as their opportunities for cross-subsidies decline. In the problem analysis at project appraisal, account needs to be taken of the effect of fairly strong deregulation on an operator in a relatively highly regulated (sub-)market (scenario analysis). As part of the sector dialogue, the consequences of deregulation should be discussed thoroughly with the competent offices in the recipient country and, if necessary, a condition should be introduced to ensure that the FC intervention is only granted if binding, cost-covering state compensation payments are made to the project executing agency in return for operating developmentally particularly relevant but commercially unviable transport services.

In order to better review the effects of an improved maritime link to outer islands on their social and economic development, baseline surveys should be carried out at pro-

ject appraisal at the relevant locations and corresponding data should be compiled as part of project monitoring.

**Notes on the methods used to evaluate project success (project rating)**

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness, "overarching developmental impact" and efficiency. The ratings are also used to arrive at a final assessment of a project's overall developmental efficacy. The scale is as follows:

- |   |   |
|---|---|
| 1 | Very good result that clearly exceeds expectations  |
| 2 | Good result, fully in line with expectations and without any significant shortcomings   |
| 3 | Satisfactory result – project falls short of expectations but the positive results dominate                                     |
| 4 | Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results |
| 5 | Clearly inadequate result – despite some positive partial results the negative results clearly dominate                         |
| 6 | The project has no impact or the situation has actually deteriorated  |

A rating of 1 to 3 is a positive assessment and indicates a successful project while a rating of 4 to 6 is a negative assessment and indicates an unsuccessful project.

**Sustainability is evaluated according to the following four-point scale:**

Sustainability level 1 (very good sustainability)

The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected.)

Sustainability level 3 (satisfactory sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability)

The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and an improvement is very unlikely. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. A rating of 1 to 3 indicates a "successful" project while a rating of 4 to 6 indicates an "unsuccessful" project. It should be noted that a project can generally only be considered developmentally "successful" if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are considered at least "satisfactory" (rating 3).