Cape Verde: Seaports of Fogo and Brava

Ex post evaluation report

OECD sector	21040 / Water transport	
BMZ project ID	1993 65 545	
Project-executing agency	Ministry of Infrastructure and Transport (MIT) Empresa Nacional de Administração dos Portos (ENAPOR)	
Consultant	Rhein-Ruhr Ing. Ges. mbH, Dortmund	
Year of ex post evaluation	**2006**	
	Project appraisal (planned)	**Ex post evaluation (actual)**
Start of implementation	4th quarter 1993	4th quarter 1994
Period of implementation	approx. 5 years	5 years, 3 months
Investment cost	EUR 10.84 million	EUR 13.67 million
Counterpart contribution	EUR 0.54 million	EUR 0.98 million
Financing, of which Financial Cooperation (FC) funds	EUR 10.30 million	EUR 12.69 million
Other institutions/donors involved	None	None
Performance rating	2	
• Significance/relevance	2	
• Effectiveness	2	
• Efficiency	2	

* Of which EUR 1.39 million from balance remaining from other FC projects

Brief description, overall objective and project objectives with indicators

The objective of the project was to ensure year-round safe and efficient seaport operation on the islands of Fogo and Brava (seaports: Vale de Cavaleiros - VdC - on Fogo; Furna on Brava). The following indicators were defined: (a) maintain the cargo and passenger transport volume of around 20,000 tonnes and 17,000 passengers reached in 1991 (Fogo) and 5000 tonnes and 6600 passengers (Brava); (b) enable regular year-round line or shuttle service to Fogo at least once a week and to Brava at least once a month, (c) reduce average berthing times for line vessels in the seaports to 1-2 days (depending on cargo type).

The overall objective was to improve the living conditions of the people by stabilising and expanding those economic activities that depend essentially on maintaining seaport operation. This was also intended to reduce the flow of emigration from the islands (overall objective). In retrospect, the definition of the overall objective was too comprehensive. There is no close causal relationship between the improved transport link brought about by the project and reduced emigration as the project measures did not affect the attractiveness of alternative locations. For this reason the definition of the overall objective was limited at the time of the ex-post evaluation to improving the living conditions and contributing to maintaining economic

activity on the island. No separate indicator for the achievement of the overall objective had been defined.

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

The project formed part of a transport programme supported by the World Bank. Its shipping component provided for construction measures and privatising the state-owned shipping firm CNNAV, as well as reforming the seaport operating company and ENAPOR. The project is also connected with two vessels financed from the Shipyard Assistance Programme (Barlavento und Sotavento) as well as a combined cargo and passenger vessel (Praia d'Aguada) commercially financed by KfW.

The measures financed from FC comprised the reconstruction of the seaport facilities that had been heavily damaged by waves (breakwater and quay) and could not be operated any longer without considerably endangering passengers and freight, as well as necessary consulting services. The total cost of the project amounted to EUR 13.67 million, of which EUR 12.69 million[1] was financed from FC funds. The seaport of Vale de Cavaleiros on Fogo accounted for 84% of the total cost.

With the exception of a component for transhipment equipment, which was not realised for cost reasons, the project was largely designed in accordance with the specifications laid down at the time of the appraisal. In deviation from the planning, some additional measures were implemented that were generally appropriate and necessary (diversion quay, enlargement of the breakwater on Fogo, ro-ro ramps and surface pavements). The seaport capacities that were built fulfil the necessary minimum criteria and reasonably match the sizes of the ships which they handle. A step-by-step enlargement was not possible. In the port of Furna (Brava) it would have been technically better to expand the quay to more than 30 metres as the quay length is shorter than the ships served by the port (68 metres and 45 metres). In unfavourable weather conditions, during the high swell season (November to March), some of these ships have difficulty docking at the pier. Because of the island's small size it would not have been economically justifiable to further enlarge the port, and so far no damage has occurred to any of the ships.

Key results of the impact analysis and performance rating

The project has given both islands functioning seaports for cargo and passenger vessels. The cargo and passenger turnover has clearly increased on both islands. In the port of Vale de Cavaleiros (Fogo) the cargo volume handled in 2005 was 33,482 t while 30,757 passengers embarked and disembarked (20,967 t and 16,938 passengers at the time of project appraisal). In the port of Furna (Brava) 8943 tonnes of cargo were handled and 21,785 passengers embarked and disembarked in 2005 (5109 tonnes and 7334 passengers at the time of project appraisal). Although the islands' agricultural and economic potential is limited, tourism has been developing dynamically (around 20,000 visitors to Fogo and around 5000 to Brava in 2005). This upswing would hardly have been possible without functioning maritime transport.

[1] Project funds of EUR 11.3 million were made available (including an increase by EUR 1 million) and a further EUR 1.39 million from balances remaining from projects 1977 66 074, 1981 70 227, 1995 65 482 and 1998 66 799.

What is still unsatisfactory is the equipment of the seaports. ENAPOR is currently procuring replacements, however. A new mobile crane for the port of VdC, the cost of which is estimated at approximately EUR 400,000, had already arrived in the port of São Vicente at the time of the ex post evaluation; it is to be delivered to Fogo and erected shortly. The remaining equipment is reportedly budgeted and approved - it is to be available shortly as well. At the time of the ex post evaluation the loading and unloading work was being performed with leased equipment, the old construction crane or the ships' own cranes. The situation in Furna is comparable. The state of the equipment unfavourably affects the transhipment costs but does not jeopardise the general operation of the port. The supply of materials and fuels is secured in both project ports. In both ports, maintenance is one of the weaknesses in the organisation of operations. ENAPOR performs merely corrective maintenance. It does not examine systematically whether any sand is accumulating in the harbour basin and whether this may require any dredging. In this regard there have not been any acute problems as extensive surveys had revealed that no sand had entered the basin since the port went into operation (2000). In summary, the visible technical inadequacies in the equipment and maintenance do not pose any severe problem to the current level of port operation. Besides, as the example of the mobile crane for the port of VdC illustrates, ENAPOR ultimately does make the necessary funds for the replacement equipment available, if late.

The internal rate of return of the project is 2.8%. For a physical infrastructure project, this figure is surely on the lower edge of the range but still acceptable in the case at hand because the islands are very small and construction conditions are extremely difficult. Besides, there are no alternatives for bringing cargo to either of the two islands and for passenger transport to the island of Brava. In comparison with the situation at the time of appraisal (rough static estimate) the individual result is still very good since an annual operating deficit of around EUR 50,000 was being expected at the time. The assumption was that this deficit would be cross-subsidised by bigger and more profitable seaports. Actually, the opposite appears to be the case.

The overall internal rate of return established in the ex post evaluation was 16.1%, a very comfortable figure for a project of this kind. It exceeded the figure established in the feasibility study by far (3.7%), although the actual figure cannot be directly compared with the result of the feasibility study because the bases for its estimates were not deduced in a transparent way.

From the target group's perspective, the project provides a reasonably priced, safe and regular transport alternative for passengers and cargo which is being intensely used. These aspects are also reflected in the positive overall internal rate of return; the cost savings ultimately also benefit the consumers through the reduction of transport and transhipment costs.

The core-locs technology, which is being used in Cape Verde for the first time, has structurally effective technical impacts which lead to cost savings as well as to much higher stability and durability of the breakwater. According to ENAPOR, this technology has proven to be very effective and is being increasingly used in other seaports. There are certain effects on the formation of structures in the sector (dissolution of the state-owned shipping firm CNNAV and deregulation of the maritime transport sector, reform efforts on the part of ENAPOR), but their range is not as extensive as had been expected (privatisation of ENAPOR is still pending, for example).

Improving the environmental situation was neither a main objective nor a secondary objective. Positive impacts in this regard did occur, since: (a) the risk of contamination of the harbour basin from losses (damaged cargo) during transshipment has been considerably reduced; and (b) the risk of oil accidents has declined. Tankers can now dock directly at the quay. Their fuels are now pumped from the quay in Vale de Cavaleiros to the Shell deposit through the newly-laid

fixed pipeline[2]. In the past, fuels could only be transported in barrels on light boats. Losses were commonplace, particularly in rough seas.

The project has no specific relevance to poverty alleviation. It did not possess the potential to improve the gender situation, so no relevant impacts occurred. The project did not pursue any objectives in the area of participatory development or good governance.

We rate the developmental effectiveness of the project as follows:

- The project objectives relating to cargo and passenger transport were greatly exceeded. The positive result was tempered, however, by the generally unsatisfactory maintenance situation in the ports (purely corrective maintenance) which has a negative impact on sustainability. These risks are limited, however, because the harbour design reduces the danger of sand entering the harbour basin, transhipment alternatives exist (ship cranes) and ENAPOR is economically strong enough to finance necessary investments, although with a delay. Therefore, we classify the effectiveness of the project as satisfactory (sub-rating 2).

- Making allowances for the difficult technical and natural conditions (swell, transport routes), we rate the production efficiency of the project acceptable. Given that ongoing operations were expected to produce deficits at the time of the project appraisal whereas instead they are actually generating a low positive return, the high economic rate of return of around 16% and the clearly better than expected internal rate of return show that the transport services are being reasonably marketed (allocation efficiency). Overall, we rate the efficiency as satisfactory (sub-rating 2).
- The basic assumption made at project appraisal that maintaining transport connections across the water (seaports) represented an essential precondition for the project island's economic development was plausible (relevance). With regard to relevance, it became apparent that improved transport connections are an important prerequisite for making more intensive use of the islands' economic potential, which lies particularly in the area of tourism. While most tourists arrive on the islands by air, goods are primarily shipped across the sea. The increase in passenger numbers is primarily due to the use of maritime transport by island dwellers. Most of them are people from lower income levels. As the strong increase in passenger numbers demonstrates, the project helped to establish a reasonably priced, safe and regular maritime transport that strongly reflects the needs of the target group. Technically significant impacts were the successful introduction of the core-locs technology, a breakwater construction technology previously unknown in the Cape Verde islands and much cheaper than conventional technologies. We assess the significance / relevance of the project as satisfactory (sub-rating 2).

In summary, we rate the developmental efficacy of the project to be satisfactory (overall rating 2).

General conclusions and recommendations

To be better able to assess in what ways a transport project enhances a location's economic attractiveness the initial situation should already be established and documented, wherever possible, in the framework of a baseline survey conducted during project preparation.

[2] This measure was not part of the project but financed by Shell.

Legend

Developmentally successful: Ratings 1 to 3	
Rating 1	Very high or high degree of developmental effectiveness
Rating 2	Satisfactory developmental effectiveness
Rating 3	Overall sufficient degree of developmental effectiveness
Developmental failures: Ratings 4 to 6	
Rating 4	Overall slightly insufficient degree of developmental effectiveness
Rating 5	Clearly insufficient degree of developmental effectiveness
Rating 6	The project is a total failure

Criteria for the Evaluation of Project Success

The evaluation of the "developmental effectiveness" of a project and its classification during the ex-post evaluation into one of the various levels of success described in more detail below concentrate on the following fundamental questions:

- Are the project objectives reached to a sufficient degree (aspect of project **effectiveness**)?
- Does the project generate sufficient significant developmental effects (project **relevance** and **significance** measured by the achievement of the overall development-policy objective defined beforehand and its effects in political, institutional, socio-economic and socio-cultural as well as ecological terms)?
- Are the funds/expenses that were and are being employed/incurred to reach the objectives appropriate and how can the project's microeconomic and macroeconomic impact be measured (aspect of **efficiency** of the project concept)?
- To the extent that undesired (side) effects occur, are these tolerable?

We do not treat **sustainability**, a key aspect to consider for project evaluation, as a separate category of evaluation but instead as a cross-cutting element of all four fundamental questions on project success. A project is sustainable if the project-executing agency and/or the target group are able to continue to use the project facilities that have been built for a period of time that is, overall, adequate in economic terms, or to carry on with the project activities on their own and generate positive results after the financial, organizational and/or technical support has come to an end.