Ex post evaluation – Mozambique

Sector: Water transport (CRS Code: 21040)
Programme/Project: Rehabilitation of Port of Quelimane, BMZ No. 1998 66 567*
Implementing agency: Portos e Caminhos de Ferro de Mozambique (CFM)

Ex post evaluation report: 2015

		Project A (Planned)	Project A (Actual)
Investment costs (total)	EUR million	12.27	11.29
Counterpart contribution	EUR million	0.51	0.85
Funding	EUR million	11.76	10.44
of which BMZ budget funds	EUR million	11.76	10.44

*) Random sample 2014

Summary: The project comprised investments to rehabilitate the seaport infrastructure of the Port of Quelimane as well as preparatory measures to establish a private port operator on a concession basis. The overall cost of the project totalled EUR 11.29 million, and was covered by means of an FC financial contribution amounting to EUR 10.44 and a counterpart contribution of EUR 0.85 million. Residual funds totalling EUR 1.32 million were reprogrammed. The rehabilitation of the Port of Quelimane was part of the nationwide Roads and Coastal Shipping Programme of the Mozambican government (ROCS), which was aimed at rehabilitating key parts of the Mozambican road network and revitalising coastal shipping. This programme was coordinated by the World Bank and co-financed by many donors.

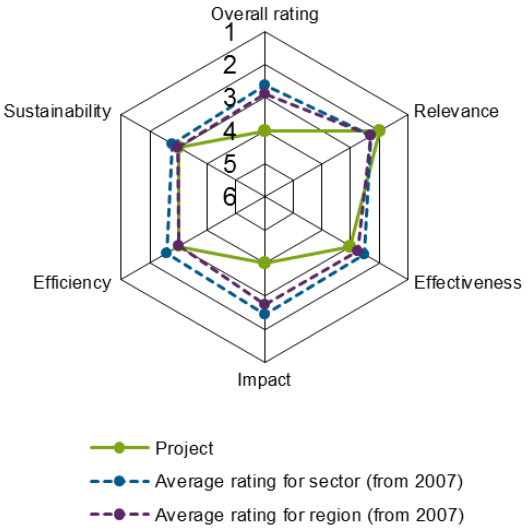
Objectives: The aim of the project was to ensure the sustainable, efficient and competitive operation of the seaport. The ultimate objective of the project was to boost the economic development of the province of Zambezia by lowering foreign trade costs, and thereby strengthening its ties with the national and international economy.

Target group: The target group of the project was primarily ship owners, but on a wider scale, Mozambican businesses as well as industry and agriculture in the province of Zambezia. Improving marketing conditions in agriculture meant that the rural population is an indirect target group of the project too.

Overall rating: 4

Rationale: In spite of the satisfactory achievement of project goals by the time of the evaluation, the project can no longer be rated satisfactory on account of negative indirect environmental effects caused by illegal timber exports through the port.

Highlights: After a lengthy start-up period, the project was efficiently implemented. The port is operated profitably, but this relies on timber exports to a not-insignificant extent. Beneficiaries of the port project principally include Chinese exporters of timber – in some cases illegally – and more recently the neighbouring country of Malawi.



Rating according to DAC criteria

Overall rating: 4

The rehabilitation of the Port of Quelimane was universally considered to be a positive development by Mozambique. Yet this glosses over the sluggish implementation and the negative external environmental effects. An evaluation according to DAC criteria concludes that while the project enjoys a good relevance rating along with satisfactory effectiveness, efficiency and sustainability, the overarching developmental impacts have to be rated as unsatisfactory in our opinion. The reasons for this are the weak contribution to promoting domestic trade with coastal shipping and the many indications of negative environmental effects caused by the illegal export of tropical woods. For this reason our overall rating for the project is unsatisfactory. The Mozambican government needs to act, particularly to stem the flow of illegal timber exports that are trans-shipped through the Port of Quelimane. Infrastructure projects knowingly realised in areas that are critical from an environmental perspective should be supported by means of capacity development measures.

Relevance

Improving transport infrastructure was and is a strategic priority of the Mozambican government to pave the way for further economic development. At the time of the appraisal, transport infrastructure in Zambezia was extremely deficient. Rehabilitating the Port of Quelimane constituted a key factor in improving this situation, processing urgently needed imports for the reconstruction and generating export opportunities for agricultural products.

As a result of high taxes on purchases of new ships, the bankruptcy of a large sugar plantation in Zambezia and of the last coastal shipping owner in 2006 resulted in all coastal shipping coming to a complete standstill, and only being revived in 2013. During the project planning, the regulatory environment and the support of private ship-owners should have been addressed more comprehensively. This was partly the reason for trans-shipments in the port falling short of expectations.

From today's perspective, accompanying measures to reduce indirect transport costs such as customs clearance, implementing appropriate laws and regulations, setting tariffs, taxation, port management and more intensive marketing of the port would have been desirable and suitable for lowering general transport costs, and thereby contributing to economic development. However, this changes nothing with regard to the high relevance of the port rehabilitation investment.

Agricultural exports remaining modest and the closure of sugar and coconut plantations depriving the port of large sales volumes suggest that support of the agricultural sector could also have been relevant. However, such support would have made no sense without improved transport infrastructure.

The coordination and division of tasks with other donors for the project was achieved through integration into the World Bank's Road and Coastal Shipping programme (ROCS). However, the subsequent deletion of component 6, "Coastal shipping and cabotage", for lack of funds, had a detrimental impact on the FC project, because this component could have provided stronger support for coastal shipping.

In short though, we can state that the project was highly relevant and over the next 5 to 10 years it certainly has the potential to contribute to the development of the province of Zambezia. The port plays an important role for investment plans, such as the Special Economic Zone planned for nearby Macuba. That said, the long-term role of the domestic port of Quelimane remains unclear on account of the deep-water port planned in neighbouring Macuze, which offers competition on the one hand but could also stimulate business on the other.

Relevance rating: 2

Effectiveness

The aim of the project was to ensure the sustainable, efficient and competitive operation of the seaport. From today's perspective this goal can be considered achieved. However, there were some issues with

the evaluation because not all the indicators were met and others only with some delay, partly due to the laborious process for awarding the concession.

Yet the basic decision to have the port functioning efficiently and competitively by means of the concession is still the right one from today's perspective, as the performance capacity of state-run administrative structures remains weak in Mozambique.

Measuring the success of the project by the volume of port handling (target > 200,000 t, of which 26,000 t in containers, p.a., two years after the launch of operations) and the average ship docking times (target: < 85 hours) still seems sensible today. The indicators for port handling were raised in 2008 and supplemented with the "port profitability" indicator.

Trans-shipment figures for the port have varied over the years. Turnover has fluctuated strongly on the one hand, while the content of shipments has changed on the other. The "port handling" indicator with its original target of 140,000 t p.a. was achieved just a few years after the appraisal and then adjusted for the first time, without any kind of rehabilitation measures being carried out. The collapse of sugar exports and coastal shipping resulted in a sharp decline in trans-shipments in subsequent years (2006-2009). The indicator was adjusted again after the rehabilitation in 2008 to 200,000 t p.a. This target was reached three years after the construction work was completed in 2011, but then fell slightly again and at the time of the evaluation stood at 187,000 t p.a. Current trans-shipments are handled almost exclusively using containers so the sub-indicator of container shipments was more than fulfilled. The high share of container shipments shows that the port is much more export-focused than originally assumed because containers are particularly used for overseas trade.

The "average docking time" indicator (< 85 hours) was first achieved in 2009 and was reportedly improved to an average of 60 hours thanks to the rehabilitation and the private operation of the port. This means the port is largely being managed efficiently and satisfactorily. On a negative note, the handling capacity is at its limits because one of the two berths for larger ships cannot be used following the lack of dredging activity in almost four years. Yet the short docking times for ships cannot gloss over the fact that large ships have to wait several days to enter the river because the tidal range is inadequate. This is an endemic problem of the Port of Quelimane.

The "port profitability" indicator can be considered met since 2010 because the concession holder has generated significant profits. Concession fees are not paid by the operator, but are taken into account when examining profits. The necessary dredging work financed partly by the operator has yet to take place. No profits were made in 2006-2009. Provided there is no significant and unexpected decline in trans-shipment numbers, there should be no medium-term risks jeopardising the functioning of the port or the operator's liquidity given the good economic prospects and the low costs of the concession holder coupled with the financially strong parent company and the powerful support from the Mozambican state for the project-executing agency. We assume that the operator would be able to pay the concession fees without this squeezing its liquidity or profitability figures. It should be noted that a large part of the revenues comes from the extremely problematic exports of tropical timber. Roughly half of the port handling is related to timber exports. It can be assumed that at least half of these exports are illegal in origin (for details and sources see overall developmental impacts). Given its export focus, the long-term sustainability of the port depends heavily on competition from other ports.

Continued growth is possible: alongside the dredging work previously mentioned, however, changes in operational procedures are needed to reach the design capacity of 300,000 t. This includes the containers no longer being laden with timber inside the port and more technical equipment being available and used.

The achievement of the programme objectives defined during the programme appraisal can be summarised as follows:

Project objective indicator	Status PP 1998	Ex-post evaluation 2014
Port handling p.a. > 140,000 t, of which 26,000 t in containers. Adjustment to 200,000 t in 2008.	84,000 t to 152,000 t depending on source	187,000 t, almost completely in containers.

Average ship docking time < 85 hours	roughly 115 hours on average	roughly 60 hours on average
Port profitability, introduced in 2008.	-	roughly USD 695,000 in profit, low capital investment from operator

We rate the effectiveness as fully satisfactory. The port handling indicator is currently not reached. Although the benchmarks were raised during the implementation of the project, the partly illegal export of timber (see overall developmental impacts) makes a not-insignificant contribution to reaching the targets.

Effectiveness rating: 3

Efficiency

On a positive note, the project objectives were reached in a cost-efficient manner despite the very lengthy implementation period of 10 years. Despite higher consulting costs caused by the implementation period, the project even came in below budget because of a favourable offer and positive exchange rate trends. The design and the scope of the implemented measures were wholly appropriate.

The long delays at the start of the project owing to the selection of the operator resulted in the first years of operation coinciding with the collapse of coastal shipping. This reduced the efficiency of the project.

Compared to expectations at the start of the project, and with due consideration of the lower than anticipated growth in port turnover and a more realistic estimate of transport cost savings, an economic assessment now only produces a meager return of roughly 2-4%. This should be construed with knowledge of the satisfactory capacity utilisation coupled with the internal rate of return (around 25%) and cost covering at the port (also see "port profitability" indicator"). Business is not profitable for the concession grantor.

From a purely economic angle the investment in the domestic Port of Quelimane is justified today, despite the competitive disadvantages to the neighbouring deep-sea ports of Beira and Nacala, because neighbouring Malawi and the economy of the province of Zambezia both benefit from the port. The long-term competitiveness of the port in Quelimane is beset with risks because new rivals are emerging on the export market.

We rate the efficiency as barely satisfactory.

Efficiency rating: 3

Impact

The ultimate objective of the project was to boost the economic development of the province of Zambezia by lowering foreign trade costs, and thereby strengthening its ties with the national and international economy. From today's perspective this goal was expanded with climate protection impacts and focused more on the creation of jobs, but it is still adequate, albeit formulated in relatively broad terms and difficult to measure.

The chosen indicator at the appraisal (trans-shipment growth > economic growth) was not fulfilled because the long-term GDP growth average (7.5 %) came in above the growth in trans-shipments (5 %). The comparison of growth rates using the indicator is a meaningful indicator in principle, which should express the appeal of the port compared with general economic growth and therefore also the general growth of the transport sector. In this specific case though, it should not be overestimated because the groups of commodities handled in the port are only linked in a very indirect way to the economic growth of the province of Zambezia and the catchment area. Surveying transport cost data to determine the success of the project was not possible either during the project appraisal or as part of the evaluation; profitability assessments are based on estimates.

Determining a reduction in foreign trade costs is therefore only possible in approximate terms. Local statements on the appropriateness of port charges, as one of the many components of transport costs,

varied. The fact is, however, that the port charges have not been raised since 2005. That turnover has risen and the port is also becoming more interesting for trade with Malawi supports the theory that transport costs have come down in relative terms. The attractiveness of using the port for domestic transport is also limited because of the much quicker transport options by road.

The port employs roughly 100 people directly and up to 400 people indirectly, mainly in the logistics and transportation sectors, which makes the port the most significant factor in generating income and boosting economic development in Quelimane. However, the municipal authority reportedly does not benefit directly from charges at the port. It could not be established to what extent the project supported downstream jobs, by preserving the competitiveness of plantations for example.

The impacts of the port on national and international economic development can be better understood if we analyse the breakdown of the current trans-shipment volume: looking at trans-shipments by goods category, exports account for 62 % (54 % of all the trans-shipments are timber exports, 4 % are mineral sands and 4 % farming products). Imports accounted for 32 % of the total trans-shipments (in terms of commodity groups, 15 % of the trans-shipments are cement while 6 % and 11 % are general commodities for Mozambique and Malawi respectively). A further 6% of the total figure pertains to empty containers and rounding.

Since 2009 the port has been able to process an increasing volume of imports to Malawi, which today account for 11 % of the trans-shipments. The port does not process any exports from Malawi. It should be emphasised here that the port exerts a positive impact on the neighbouring country of Malawi, unexpectedly, and strengthens its trade. So far it has been difficult to reach the target group originally envisaged (owners of coastal ships) because domestic trade makes up only 7 % of the trans-shipments, half of which is timber transportation. 93% pertains to international trade. As the target group, however, those involved in this trade are likely to have benefited from the project by means of lower costs and more flexible transport opportunities.

In terms of achieving the targets, this means that the contribution to boosting domestic trade is very limited. Looking forward though there is massive potential to bring transport back from the N1 state road to coastal shipping routes, especially since there are positive climate protection effects today in using coastal ships over lorries.

With regard to the developmental impacts of the project, one critical aspect is the exports of timber through the port. The problem of illegal timber exports from Mozambique has been discussed in various publications and media reports since 2002 at least, also with references to the Port of Quelimane. Key sources of information included, for example, publications of the Environmental Investigation Agency (EIA) from 2013, the Center for International Forestry Research (CIFR) from 2013 and a Country Study for the Forest Law Enforcement, Governance and Trade Action Plan (FLEGT) of the European Commission dated 2014. Studies on the topic can also be found in previous years (2006 and 2009).

The mostly sawn planks currently come from districts that are roughly 100-200 km from the port, and are loaded into containers when they arrive. Chinese timber exporters have recently been the main beneficiaries of the port, who transport tropical timber by container to China via the Comoros and Dubai.

Timber exports have shot up since 2012 and reportedly experienced further growth in the autumn of 2013. This contradicts the statements of the forestry authority that the number of felling licences and timber concessions is declining. Although Mozambique does have a certification system for timber, and timber exports are well regulated, discussions with environmental associations (WWF) and transportation companies leave no doubt that the significant corruption in Mozambique – which prevails at the highest level according to dialogue partners and press reports on the issue – makes it relatively easy to circumvent legal restrictions. EIA estimates suggest that the Mozambican state loses up to EUR 20 million in proceeds each year because of illegal timber exports. As determined back in 2002 in an FC-funded study of the Mozambican National Directorate of Forests and Wildlife (NDFW), Mozambican customs are the Achilles' heel in safeguarding legal timber exports. In particular the study recommended setting up additional control points, also in the Port of Quelimane. Some were introduced, but the export figures cast doubt on their effectiveness. The problem of illegal exports was known early on. During the project appraisal in 1998, only the environmental impacts at the port were examined. After recognising the problem it would have made sense to consider the design of capacity development measures.

According to several statements we find reliable, a large proportion of the timber exports handled through the Port of Quelimane is illegal in origin. In our view, the relatively isolated position of the now rehabilitated port facilitates the illegal export of timber, which cannot be transported economically to other domestic ports. The majority of this timber is slow-growing "black wood", which is very valuable. The potential scale of the environmental damage could not be assessed as part of the evaluation. Nonetheless, the exporting on this scale of tropical wood that should be protected inevitably results in a negative assessment of developmental impacts.

The recent launch of mineral sand exports to China by means of dredging in river plains close to Quelimane is not regulated either, and therefore has the potential of causing local environmental damage by destroying fragile eco-systems.

Impact rating: 4

Sustainability

The sustainability of operations is largely secure thanks to the competent and financially sound international operator, which also operates the neighbouring port of Beira. Procedures are carried out professionally, replacement investments are made, and the operator is committed and competitive when it comes to acquiring new clients. Over the next 5-10 years, the trans-shipment opportunities will remain positive. The Special Industrial Zone of Macuba, roughly 150 km inland from Quelimane, could boost turnover further in the future, along with the exports of mineral sands and agricultural products (sugar, tea, etc.) from the dynamically growing farming sector in Zambezia. It is not known whether the construction and subsequent operation of a deep-sea port in Macuze will have a positive or negative impact on Quelimane.

The high dependency of the port on timber exports represents a significant risk with regard to the sustainability of the project. Even though this large revenue generator is not likely to collapse at short notice, timber exports currently accounting for more than 60% does constitute a concentration risk.

The fact the port has not been dredged also puts its continued growth potential at risk. The costs of this operation totalling USD 1.6 million must be paid by the concession holder for the most part. An agreement at management level regarding a sharing of the costs between the parties involved (ministry, concession holder, concession grantor) should be reached very soon. This discussion should be viewed with due consideration of the concession fees that have not been paid over recent years, amounting to roughly USD 4 million, and a solution does seem possible.

Sustainability rating: 3

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

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

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

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

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 is very unlikely to improve. 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. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).