Ex post evaluation – Tanzania

Sector: Water supply and sanitation – large systems (CRS 14020)
Project: Water sector development WSDP I–II,
BMZ Nos.: 2006 65 299* and 2009 65 483*
Implementing agency: Tanzanian Ministry of Water

Ex post evaluation report: 2018

<table>
<thead>
<tr>
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<th>Projects I–III** (Planned)</th>
<th>Projects I–III** (Actual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment costs (total) EUR million</td>
<td>800.00***</td>
<td>1,141.00***</td>
</tr>
<tr>
<td>Counterpart contribution EUR million</td>
<td>211.16***</td>
<td>305.98***</td>
</tr>
<tr>
<td>Funding EUR million</td>
<td>588.84***</td>
<td>835.02***</td>
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<tr>
<td>of which budget funds (BMZ) EUR million</td>
<td>67.25****</td>
<td>67.25****</td>
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*) Random sample 2016, **) Only phases I and II are officially evaluated for technical reasons. However, the content of Phase III Part 1 is so closely related to Phases I and II that it is dealt with throughout the report; investment costs, counterpart contributions and financing shares of the other donors could no longer be allocated ex post to the various FC modules. ***) USD exchange rates from May 2018, ****) Project III still contains an output-based aid component of EUR 5.0 million, which is not part of the ex post evaluation.

Summary: The Water Sector Development Program (WSDP) launched in 2007 forms the framework for all water sector-related activities of the Tanzanian government and its development partners. With the payments into the common water basket, the German FC supported the four components of the WSDP, namely 1) management of the country's water resources, 2) improvement of rural water supply and sanitation, 3) improvement of urban water supply and sanitation and 4) sectoral institution building. Since the German DC, together with the World Bank, had undertaken the donor chair in the overall project, it was able to play a key role in the reform discussions.

Objectives: All three projects had set the modular objective of contributing to improving the Tanzanian population's access to sustainable, efficient and ecologically sound drinking water and sanitation services. The overarching development objectives (impact) of the programmes were to alleviate poverty significantly by reducing the risk of water-borne diseases and achieving positive environmental and gender effects.

Target group: The target group of the water sector development programme was the entire population of Tanzania.

Overall rating: 3 (for all projects)

Rationale: The project's development effectiveness is rated as satisfactory overall. Approximately two-thirds of the indicators for the three projects achieved the planned target values. The projects were able to support the Tanzanian reform strategy well, though this has only partially achieved its ambitious goals to date. The inclusion of water resource management and sanitation in the reform package is a positive development. On the other hand, the limited efficiency of the implementation and the shortcomings in the maintenance of the financed investments must be criticised. The programme was unwieldy due to the large number of detailed regulations.

Highlights: /.
Rating according to DAC criteria

Overall rating: 3 (for all projects)

Ratings:

<table>
<thead>
<tr>
<th>Rating</th>
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<tr>
<td>Relevance</td>
<td>3 (for all projects)</td>
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<tr>
<td>Effectiveness</td>
<td>3 (for all projects)</td>
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<tr>
<td>Efficiency</td>
<td>3 (for all projects)</td>
</tr>
<tr>
<td>Impact</td>
<td>3 (for all projects)</td>
</tr>
<tr>
<td>Sustainability</td>
<td>3 (for all projects)</td>
</tr>
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</table>

General conditions and classification of the project

The three projects evaluated here made a financial contribution to the same Water Sector Development Programme (WSDP), phase I, which was implemented between 2007 and 2015 by several bilateral and multilateral development partners and German FC (the FC disbursements were made between April 2008 and December 2014). In order to assess the effectiveness of the supported measures, the entire medium-term reform programme has to be evaluated. Accordingly, the ex post evaluation of the three FC programmes – which were assessed one after the other, but which function as a whole – will be carried out jointly below. Where necessary, differences between the three projects have been highlighted.

Relevance

The three projects discussed here were developed and implemented in close connection with the objectives defined in the two phases of the Tanzanian National Strategy for Growth and Reduction of Poverty, NSGRP I and II, which in turn were outlined in more detail in the WSDP. It was decided to adopt a programme-oriented joint financing approach for these projects under the WSDP in the form of a sector basket; this also served to counter general criticism of the traditional forms of development cooperation. The Tanzanian government had presented a clear political and economic development strategy for this water basket, which was comprehensible in its priorities, and from which the specific objectives for the water sector emerged. The Tanzanian government was given the right to freely allocate the contributions – made by the various stakeholders to the water basket – to investments in the WSDP.

At the time of the programme appraisal for phase I of the first of the three projects in 2007, Tanzania was already able to look back on a long period of positive economic development; however, this positive economic development had rarely been associated with a reduction in poverty among the population or an improvement in social indicators. With its National Strategy for Growth and Reduction of Poverty, Tanzania wanted to rectify this unbalanced development and place greater emphasis on poverty reduction. The Water Sector Development Programme included in the strategy was based on key internationally accepted objectives for development policy (including the Millennium Development Goals). Moreover, the programme focus was in line with the water sector concept of the Federal Ministry for Economic Cooperation and Development (BMZ), in that it considered all water sub-sectors together within the meaning of the Nexus concept.

The expected results chains are convincing, including that

1) improving access to and use of clean and safe drinking water, and access to and use of improved sanitation (outcome), will reduce the risk of infection from contaminated water and wastewater (health effects); and

2) the time required for procuring, treating and storing water will be reduced.

The strategic elements continue to appear convincing. However, the appraisal was also too optimistic in some of its considerations. The existing maintenance and operating capacities were clearly overestimated, as were the revenue potentials of the local municipalities. From an ex post perspective, it would also have made sense to set stronger targets for the financial share of personnel support.
For the above reasons, we rate the relevance of the project as satisfactory.

**Relevance rating: 3 (for all projects)**

**Effectiveness**

The decision of the German DC to participate in the sectoral water basket and thus assume a central role as a local partner in the reform discussions can be seen as an important step towards implementing the international Paris and Accra Declarations on improving development aid. A reform strategy developed independently by Tanzania and which corresponds to the principles of ownership and alignment with the partner’s strategies was supported here by German development cooperation. Other bilateral and multilateral donors also participated financially in this water basket, some (including the FC) without simultaneously abandoning bilateral programmes. It is also remarkable that the Tanzanian government still has not abandoned the development steps launched with the support of the programmes, and is still actively pursuing these as of 2018.

All three projects had set the modular objective of contributing to improving the Tanzanian population’s access to, and better use of, sustainable, efficient and ecologically compatible drinking water and sanitation services. The first of the three projects designated the strengthening of sector institutions for integrated water resource management as an additional module objective; this was also seen as important in the following two projects, but was no longer defined as a specific objective. The DC programme objective is found at the outcome level and coincides with the module objective, which is why it has not been repeated.

The indicators used to monitor the achievement of the module objectives/DC programme objectives differed between the three projects. All three projects had indicators to measure the improvement in access of the rural and urban population to clean and safe drinking water and the improvement of the population’s access to sanitary facilities. However, the planned target values were lowered further and further over time.

The achievement of the target indicators defined at the time of the programme appraisals can be assessed in the following table. For reasons of clarity, we have summarised the indicators for all three projects. As the data available at the programme appraisals was often unreliable, we have used the baseline data collected during the programme implementation with the respective year of the survey as the starting values.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline value (BV), target value at PA</th>
<th>Adjustment 1</th>
<th>Adjustment 2</th>
<th>Ex post evaluation status</th>
</tr>
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<tbody>
<tr>
<td>(1) Water catchment authorities are operational and implement a joint management plan (IWRMP) (phases I + III, proxy indicator)</td>
<td>BV: 0 Target value: 6</td>
<td>Target value: 3 (06/2013)</td>
<td>./.</td>
<td>2015: 1, 2016: 4 Indicator achieved</td>
</tr>
<tr>
<td>(2) Percentage of additional persons in rural settlement areas with access to clean drinking water since start of WSDP I (phases II, III)</td>
<td>BV 2010: 57.8% Target value: 65%</td>
<td>Target value: 2.5% p.a. growth corresponds to roughly 2 million people p.a. (09/2009)</td>
<td>BV 2012: 2.95 million Target value: 3.7 million (06/2013)</td>
<td>8.2 million (2014), 10.3 million (2015) 62% Indicator almost achieved (percentage value) or exceeded (absolute value)</td>
</tr>
<tr>
<td>(3) Percentage of additional persons in urban settlement areas with access to clean drinking water since start of WSDP I (phases II, III)</td>
<td>BV: ./.</td>
<td>Target value:</td>
<td>BV 2012: 2.6</td>
<td>2.8 million (2014),</td>
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Of the target values which were adjusted several times over the programme period, around two-thirds were achieved. In concrete terms, the indicators were achieved in the areas of integrated water resource management, rural water supply, water supply in district towns and sanitation provision, while the indicators were not achieved in the areas of overall urban water supply, supply in regional centres and supply in the capital Dar es Salaam. It should be noted, however, that the objectives were defined as a percentage of the population and could not be achieved due to the high population growth in the cities. The objectives were formally updated shortly before the completion of the measures in 2013 and absolute figures defined. We have therefore included both percentage and absolute values in the evaluation.

According to external evaluation reports, it is uncertain whether the positive results can be attributed to the water basket, or rather to the many bilateral projects which also receive strong support from German FC. As mentioned above, this problem of attribution can be ascribed to the free distribution of funds within the framework of an agreed concept.

The reforms in water resource management which came about because of the water basket, as well as the increasing attention paid to wastewater disposal during the course of programme implementation – which the Tanzanian government did not pursue with much commitment prior to the overall project – can be viewed in a positive light. The reform successes in the urban water supply, including the further development of the water regulator, which led to a significant increase in the efficiency of the municipal utilities provider, can also be rated as positive.

The overall achievement of objectives can therefore be assessed as satisfactory.

**Effectiveness rating:** 3 (for all projects)
Efficiency

The efficiency of a development programme is usually measured by looking at the relationship between use of inputs and the achieved outputs or outcomes. In this particular reform programme, this relationship cannot be established because although the input level is more or less known, these inputs cannot be assigned to their outputs or outcomes. This is because parallel to these inputs, the Tanzanian government as well as bilateral development partners also made significant contributions that were used for the very same purposes. Accordingly, the efficiency criteria is virtually meaningless.

However, programmes similar to budget support should be more efficient than support by way of individual projects because they can contribute to a considerable reduction in transaction costs. In addition, the use of consistent and transparent competitive bidding and procurement procedures supported in the course of this programme alongside the strengthening of national implementation capacities are likely to have contributed to efficiency gains.

Complex projects such as these which cover various areas tend to be very difficult to evaluate from the point of view of efficiency. Therefore, to clarify the question of whether the projects represent “value for money”, the investigation was limited to a small number of random samples taken from certain specific project measures. To give an example, two such examinations will be briefly summarised here. A total of 91 investment measures were examined between 2010 and 2012 as part of a technical audit. It was found that only 18% of these 91 investment measures achieved the expected “value for money”. As part of an external evaluation, the costs per user for a total of almost 10,000 water points in rural areas were compared against the planned approaches. The actual costs per user of the rural water points in the present project were around USD 59 – compared to the originally planned costs of USD 36, or the USD 22–36 average for DFID projects in the region. This indicates that the costs of the respective investments were higher compared to the usual costs in Tanzania or other countries in the region. However, since the per capita costs of the water supply in the German bilateral programmes have been between USD 70 and USD 100 in recent years, we still consider these costs reasonable.

When we consider the efficiency of launching sector reforms, however, the result is more positive. The overall efficiency of the project can be considered satisfactory.

Efficiency rating: 3 (for all projects)

Impact

The overarching development objective was to contribute to poverty reduction in Tanzania by reducing water-borne diseases and achieving positive environmental and gender effects.

Unfortunately, despite the scope of the programmes, no impact data was collected. While general gender information for Tanzania is available via Tanzania’s gender report and via the Gender Gap Assessment of the World Economic Forum, this cannot, however, be related to the present programme. There is also little relevant data on the development of poverty and the reduction in the risk of water-borne diseases for the population. The most recent World Bank study on the subject shows a nationwide decline in the number of poor people from 13.2 million in 2007 to 11.9 million in 2011, which is encouraging overall, but is only likely to be attributable to the project to a limited extent. In its evaluation of the development of diarrhoeal diseases between beneficiary and non-beneficiary rural communities, the African Development Bank found a decline in diarrhoeal diseases in the beneficiary communities, although this was less pronounced than for comparable projects in other countries. Data from the WHO indicates that the number of cholera cases increased from 14,297 in 2006 to 24,108 in 2016, which certainly cannot be attributed to the project. No specific external studies have examined the environmental and gender effects of the overall water sector. It is, however, positive to note that this project resulted in the establishment of a comprehensive set of social and environmental standards that the Tanzanian government intends to apply to all other water projects. In addition, a separate team for the management of environmental and social stand-

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ards was set up within the Ministry of Water and is now fully operational and reportedly one of the best-functioning units in the Ministry. Environmental and social aspects including gender also formed part of the technical audits and were integrated into the management information system. The environmental and social management systems were therefore continuously supported and further developed.

The overall impact can be assessed as satisfactory.

**Impact rating: 3 (for all projects)**

**Sustainability**

In terms of the project's sustainability, a distinction needs to be made in this context between three different forms of sustainability. The assessment of financial sustainability, i.e. the guarantee that Tanzanian partners will be capable of continuing to finance a comparable programme in future, cannot be answered positively due to the country's strong dependence on development finance.

The question of whether the improvements in water resource management and institutional capacity achieved by the projects will be maintained – i.e. whether institutional sustainability can be secured – cannot be answered unequivocally. Considering the staff turnover at management level and the limited level of skills and qualifications that persists among the personnel on the lower rungs of the central hierarchy and in the decentralised bodies, we cannot safely assume that the improvements can be secured in the long term. On the other hand, the improvements in processes and in numerous institutional rules should be able to be maintained.

It is also impossible to definitively answer the question of whether the effects achieved as a result of the project – the impact sustainability – can be safeguarded in the long term. The overarching impacts of the project are too difficult to assess in this respect. Numerous studies indicate that some of the financed investments in rural areas can no longer be used due to a lack of satisfactory maintenance measures. No information is available on the urban measures or on measures in the wastewater and sanitation sector. Support for the water regulatory authority can be regarded as sustainable.

To sum up, securing financial and institutional sustainability can be rated as satisfactory from today's perspective, with impact sustainability also rated as satisfactory.

**Sustainability rating: 3 (for all projects)**
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:

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

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).