

Ex post evaluation – Tanzania

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Sector: Basic drinking water supply, basic sanitation and waste water management (CRS Code 14030)

Project: A) Rural water supply Hai District IV – BMZ No.: 2003 65 080*, B) Rural water supply Hai District IV, accompanying measure – BMZ No. 2003 70 254

Programme executing agency: Steering Committee Hai District Water Supply Project



Ex post evaluation report: 2014

		Project A (Planned)	Project A (Actual)	Project B (BM- Planned)	Project B (BM-Actual)
Investment costs (total)	EUR million	7.3	7.3	0.8	0.8
Own contribution	EUR million	0.5	0.5	0.0	0.0
Funding	EUR million	6.8	6.8	0.8	0.8
of which BMZ budget funds	EUR million	6.8	6.8	0.8	0.8

*) Random sample 2014

Description: The programme was the first part of the fourth phase of the FC rural water supply programme in Hai District, and complemented phases I-III which had already completed. It involved the rehabilitation and expansion of the water supply systems in Lyamungo-Umbwe and Maili Sita. As part of an accompanying measure, village water committees were trained in how to operate the water systems, while measures targeting better hygiene awareness were carried out.

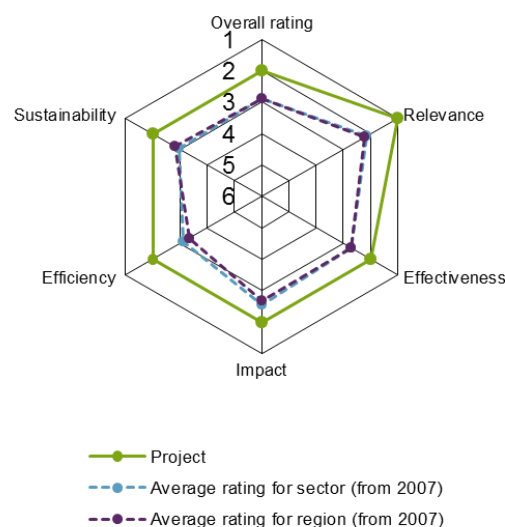
Objectives: The overarching development objective of the programme was to lower poverty and waterborne diseases by giving the population improved access to clean drinking water. The programme aimed to ensure an affordable and sustainable supply of water.

Target group: The target group was the entire population in the supply area of the existing and future expanded systems. Roughly 80,000 inhabitants were affected in this phase.

Overall rating: 2

Rationale: The programme's objectives were largely achieved, while the technical and economic capacity of the water utilities are very high. The programme was able to make a significant contribution to improving living conditions in Hai District.

Highlights: In terms of its design, the Hai District water supply programme can be considered a model for rural water supply and was included in the national water strategy on a conceptual level, which forms the basis for sector-wide programmes.



Rating according to DAC criteria

Overall rating: 2

Relevance

In Hai District one third of the population lived in areas without access to clean drinking water. This led to health problems as well as limited social and economic development prospects. Poorer strata of society in particular as well as women and children who are traditionally responsible for the water supply were affected by this. Based on the previously successful phases I-III, it was decided to expand the programme to further systems. This appears appropriate even today considering the low well density and the ailing condition of existing facilities.

As part of the concept, this bottleneck was to be relieved with new construction as well as the rehabilitation/expansion of water supply systems. A complementary accompanying measure targeted the establishment of a rural water committee and an increase in hygiene awareness in the programme area. Due to the high willingness to help and get involved, the majority of the construction measures were implemented by the locals with the consultant's support. As a result, the investment and accompanying measures led, to independent and sustainable water supply systems.

The establishment of independent water supply companies in rural areas is one of the main objectives of the Tanzanian water sector development programme adopted in 2007. In connection with this objective, the water supply programme of Hai District is considered to be a pilot for the rural water supply. The concept was incorporated into the water strategy. Donors in the water sector are generally coordinated very well and pursue harmonised approaches. FC is currently trying to avoid individual programmes and concentrate on developing a functioning water sector as part of the national programme mentioned above.

The programme concept is consistent with the German Federal Ministry for Economic Cooperation and Development's (BMZ) Water Sector Strategy and fits in with the BMZ's DC strategy with Tanzania, whereby the water supply and waste water management remain priority areas.

Due to the high significance of the programme for the target group as well as a convincing programme concept, we conclude that the relevance is excellent.

Relevance rating: 1

Effectiveness

At the programme appraisal the measures targeted an improvement in the population's access to clean drinking water. At the ex-post evaluation, however, we are considering the actual usage or consumption of supplied drinking water based on today's standards. New standposts and house connections were to be installed as well as new pipes. The aim of these gravity-based installations was to draw glacier water from higher regions down to the extraction points. Another priority was setting up the water company (trust) Ly-amungo-Umbwe (LUWST), which was responsible for the operation of several rural water systems. Other systems that had to be rehabilitated at this stage of the fourth phase were to be incorporated into the already existing Maganini-Makiwaru Water Supply Trust (MMWST). The following indicators were used to measure the programme objectives:

Indicator	Target value	Status at ex-post evaluation
(1) Per capita consumption at standposts	> 20 litres/capita/day (l/c/d)	9-15 l/c/d Figure below expectations, but still acceptable.
(2) Proper operation of standposts	90 %	100 % Met.
(3) Coverage of operating and maintenance costs as well as amortisation by water sale revenues	100%	100% Met.
(4) Maximum distance to standpost	< 500 m	< 400 m Met.
(5) Water consumption at house connections	> 50 l/c/d	LUWST ¹ : 63 l/c/d MMWST ² : 71 l/c/d Met.

¹ LUWST: Lyamungo-Umbwe Water Supply Trust, ² MMWST: Maganini-Makiwaru Water Supply Trust

According to operator information all 273 rehabilitated and newly constructed standposts of LUWST were in operation by 2013. Under the scope of the MMWST, the 167 standposts that were rehabilitated and constructed as part of the programme have been expanded by further 90 since 2009 due to increased consumer numbers.

The low consumption at the standposts in these systems is a negative point. The reason is the expansion of house connections, particularly in higher-income regions of the programme area. This might lead to an increase in prices, especially at the standposts which are, from experience, used by poorer parts of the population. According to their own information the target group uses water from the standposts for drinking and cooking as well as for hygiene purposes, and use alternative sources for all other domestic water purposes. Therefore we consider the indicator to be just about fulfilled.

Last but not least, the foundation of the trust initiated as part of the accompanying measure can be considered successful. It can be assumed that the training on operational management, the professional installation of house connections and the maintenance of the facilities, have contributed significantly to the achieved target values.

Summing up we can state that four out of five indicators were fulfilled without any curtailments at all, and the fifth with only minor curtailments. Thus we consider the effectiveness of the programme to be good.

Effectiveness rating: 2

Efficiency

The development of the Lyamungo-Umbwe system planned at the programme appraisal and the integration of the Maili Sita systems into the Moshi Urban Water Supply system was expanded with the Kwa Tito und Roslin systems, partly because of a contractual financial penalty against one of the construction companies. In this context, Kwa Tito was integrated into LUWST and Roslin into MMWST. The efficient im-

plementation based on the work of volunteers among the target group should also be emphasised, who carried out a large part of the construction measures themselves. The quality of the installations is good. Production efficiency is generally considered to be excellent.

Specific per capita investment costs amount to roughly 85 EUR based on an estimated number of inhabitants in the programme region of around 80,000. This figure is high compared to the previous phase (59 EUR /capita) and to the per capita costs of similar water systems (grid-bound and gravity-based), but still appropriate.

All connections have been fitted with water meters and the loss rate is low on average for all water systems, at less than 20 %. The collection rate between 2009 and 2012 was roughly 98 %, a comparatively high percentage. That said, a fall in the collection rate was noted during the operation of the LUWST system among others, which was attributable to late payments and a low willingness of consumers to pay. Measures were introduced to counter this development though, and it has not emerged since.

Furthermore, revenues cover all of the operating and maintenance expenses as well as short-term investments. Both trusts covered their costs until 2013 in respect of this parameter. Such cost efficiency is impressive in rural water supply. Given the reliable supply standards via the trusts, there is no reason to consider an alternative water supply system. All told the allocation efficiency is good.

To sum up, we rate the efficiency as good given the relatively high per capita costs.

Efficiency rating: 2

Impact

The overarching development objective was to reduce poverty and waterborne diseases by giving the population improved access to clean and affordable water.

Indicator	Status PA	Ex-post evaluation
Water quality by WHO standards	100 %	100%, with qualifications Partially met.

The water quality tests carried out since the end of the measures fulfil the quality standards of the World Health Organisation (WHO). On a critical note, however, the number of water samples drawn in LUWST since 2009 has fallen by roughly half. The intervals between the samples (10 samples (LUWST) and 6 samples (MMWST) in 2012) are too long to introduce counter measures promptly if there is a deterioration in the water quality.

Since water can also be taken from standpipes, measurements in production and at the standpipes enable no conclusions to be drawn about transport and storage circumstances (point-of-use). Experiences from neighbouring countries in the region demonstrate that problems often surface here. Water becomes recontaminated during transportation. Given the efficient executing-agency structure and the awareness campaigns, which were also conducted by local partners, we have reason to assume that recontamination is rarer in this case, and the expected impacts on health have materialised, albeit with some limitations.

Based on the good performance capacity in operations, a lower tariff can be achieved at standpipes through cross subsidisation, which above all helps to reduce the financial burden for poorer parts of the population. However, there is a risk that standpipe charges will increase, as mentioned above.

Overall we can see a marked improvement in living conditions. Against the backdrop of limitations with the quality of water, the overarching development impact is still good.

Impact rating: 2

Sustainability

The current situation with the operators suggests a positive development trend in the future. All of the connections have working meters and the current management has enabled necessary maintenance work to be financed from own funds. Operations have been independent since 2008 and the trusts are capable of using their generated revenues efficiently. That said, without the link to Urban Water Supply Moshi, the larger operator, the Maili Sita system would not be capable of supporting itself financially.

Aspects of a sustainable operating organisation include the continual acceptance and readiness of the population to pay for water supply services, and the ability of the trusts to manage their staff and maintain their equipment efficiently. Past experience reveals there is a risk of tariff collection being neglected, and therefore the necessity for the operators to continue with awareness campaigns and training.

The rising number of consumers and house connections to be installed pose a medium-term challenge for the water systems to expand their production facilities adequately.

In addition, there is the aspect of appropriate waste water and sanitation systems which should be mentioned. This is gaining significance first and foremost because of the expansion in house connections, and the trusts have to ensure the regular emptying of cesspits.

A conflict of use regarding irrigation water that was assumed during the programme planning stage has not materialised as yet. But since surface water can also be used for irrigation, such a conflict cannot be ruled out in the future.

Titles to the land where the water systems are located (offices, storage tanks, etc.) are not always available, which is a problem due to the potential risk of legal disputes. Furthermore, the tanks in some parts of the water system are not protected with fences and shrubs.

Summing up, the sustainability of operations is deemed positive based on the current capabilities of the trusts, in spite of the outlined risks.

Sustainability rating: 2

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

Ratings level 1-3 denote a positive assessment or successful project while ratings level 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. Ratings 1-3 of the overall rating denote a "successful" project while ratings 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" (rating 3).