Tanzania: Rural water supply in East Kilimanjaro (cooperation project)

Ex post evaluation report

OECD sector	14020 Water supply and sanitation	
BMZ project ID	200065805	
Project executing agency	KILIWATER CO. LTD.	
Consultant	GITEC Consult GmbH, Düsseldorf	
Year of ex post evaluation	2009 (2008 random sample)	
	Project appraisal (planned)	**Ex post evaluation (actual)**
Start of implementation	1/2001	1/2001
Period of implementation	4 years	4 years
Investment costs	EUR 4.55 million	EUR 4.24 million
Counterpart contribution	EUR 0.46 million	EUR 0.15 million
Financing, of which FC funds	EUR 3.78 million	EUR 4.09 million
Other institutions/donors involved	GTZ/DED	GTZ/DED
Performance rating	4	
• Relevance	2	
• Effectiveness	4	
• Efficiency	3	
• Overarching developmental impact	3	
• Sustainability	4	

Brief description, overall objective and project objectives with indicators

This ex post evaluation was conducted jointly by KfW and GTZ. Its subject was the first phase of the 'Rural water supply in East Kilimanjaro' cooperation project. Kiliwater Co Ltd, a water supply company which was founded in 1995 with GTZ support and is based in Mkuu - Rombo, Tanzania, was the project agency. Financial cooperation (FC) supported the project agency from 2001 to 2004 through funding for investment and supplementary activities. Since 2001, German technical cooperation (TC) has been selectively supporting the project agency with regard to 'User-funded water supply in rural areas', which is component 5 in the policy consultancy project 'Supporting reform in the water sector'. In addition, DED specialists have been supporting company management on the ground since 2004.

Objectives and indicators for the FC and TC components were not drafted in a uniform fashion. So, to provide a basis of assessment for this evaluation, a common project objective was defined with appropriate objective indicators for project interventions, and the overall objective was adjusted to reflect present-day requirements. The cooperation project's overall objective was to improve living conditions for the local population by

significantly reducing waterborne health risks within the project area. Hence the project objective was to guarantee the year-round availability of an adequate supply of safe drinking water to meet basic needs within the supply region. The following indicators were set as measures of project objective attainment:

- 70% of the population have improved access to drinking water;
- guaranteed year-round supply of a minimum of 20 L of water per person per day;
- water quality satisfies relevant Tanzanian standards (conforms to WHO recommendations);
- all operating costs for the production and supply of drinking water, including maintenance, are covered out of revenue;
- water is extracted at source in compliance with the water rights assigned.

The project's target group was the population of the project executing agency's entire supply region in the *Rombo* and Moshi *Rural* districts on the eastern Kilimanjaro massif (approx. 305,000 inhabitants, living in 73 villages).

Project design

The inadequate provision of safe drinking water was a core problem for the predominantly poor rural population of the project area. In addition to constraints on supply volumes, serious health risks were caused by the lack of protection for production sources, and the use of ancillary supplies from surface water (which was to some extent a necessity). Consequently, establishing and developing operational and administrative capability at Kiliwater, the water supply company (and its associated water user groups) was an important element in ensuring a sustainable water supply based on rehabilitated, modernised infrastructure. Within this context, the project provided support in the areas of methods, finance and technology.

Key results of the impact analysis and performance rating

The rehabilitation and/or construction of spring tanks and main supply pipelines, funded by FC, has contributed to improved water availability across the entire supply network, and to a significant reduction in physical water losses. At the same time, establishing and strengthening a user-oriented business model has created the basis for a profitable and resilient supply operation. This cooperation project has thus made a solid and significant contribution to increasing the target population's supply of safe drinking water. Overall, therefore, a positive effect on the population's supply situation has been noted. However, some limitations are evident here, essentially due to the failure to achieve equable supply arrangements which meet basic needs. The amount of rehabilitation and upgrading that the extensive supply network required was underestimated. There was insufficient focus on the refurbishment and construction of public water taps, which are important for those households affected by extreme poverty. Furthermore, the need for long-term consultancy services to stabilise and develop operational capacity at the project agency was also underestimated. Measures to raise awareness and mobilise the local population, and to provide them with hygiene education, were not implemented to the extent needed.

Relevance: from today's perspective, widespread inadequacies in water provision would still be considered a core, developmentally significant problem for the target group. The project accords with the objectives of the partner country, and is also in keeping with the international donor community's joint efforts to implement the Tanzanian development strategy and the programme for water sector development.

The project fits within the principles and objectives of the German Government's strategy for the water sector. It makes a solid contribution toward the millennium development goal 'Eradicate extreme poverty and hunger' (MDG 1) and toward health improvements (MDG 4 – 'Reduce child mortality' and MDG 5 – 'Improve maternal health'). The overall project concept was appropriate, and it was designed as subordinate to the Tanzanian Government's own development efforts. However, it did not conform in every respect with present day aspiration levels. The project's relevance has been assessed as good (rating: 2).

Effectiveness: from the analysis carried out by the evaluation mission, the project objective was not attained, predominantly because the minimum provision - supplying a large part of the population (approx. 195,000 inhabitants) with a minimum level of 20 L of water per person per day - was either not guaranteed or not achieved. This section of the population is partially dependent on supplies from unsafe, naturally occurring watering places. A more equable provision across the different supply zones would be feasible technically; but this has yet to be implemented at the political level. We see it as a particular concern that supply options for the poorer population groups - through public water taps, or controlled and regulated private water sellers - are decreasing, and the Kiliwater company does not give any priority to supplying this section of the population. In addition, since operating costs are not being covered, the controlled and sustainable operation and maintenance of the overall system is not assured. On the basis of a plan v. actual comparison of objectives and indicators, the project's overall effectiveness, despite some positive results, has been assessed as unsatisfactory (rating: 4).

Efficiency: production efficiency and allocative efficiency were satisfactory. Physical investment costs were judged to be appropriate, and implementation took place within a reasonable space of time. Overall, however, the extent of rehabilitation and construction required across the extensive supply system was underestimated, and there was too little focus on rehabilitating and constructing public water taps. The relatively high FC costs during project implementation for technical consultancy (18%) were still appropriate, in view of the project agency's weaknesses and the small size of individual project activities (self-help component, daywork). Since overall TC consulting costs (for GTZ activities and the deployment of DED staff) were low, total costs for advice to the project agency are seen as appropriate. The need for institutional development measures was also underestimated. Due to the operating deficit (which still exists), the results intended were not fully achieved. Consequently, the cost-benefit ratio lagged behind expectations. The project's overall efficiency was assessed as satisfactory (rating 3).

Overarching developmental impact: this cooperation project was designed to improve economic and social conditions for the poorer sections of the population, and to enable the target group to contribute to operational planning and management by involving them in user group structures. For the purposes of this evaluation, the project's overall objective was defined as improving living conditions for the target population by significantly reducing health risks in the project region. Not all the social inequalities in access to clean drinking water were abolished (inadequate development of supplies to poorer households, distribution problems at the system level); however, the overall availability of an improved quality of drinking water was increased. This resulted in a reduction in health risks and lessened the burden on the female population, whose job it is traditionally to obtain water supplies. At the same time, the involvement of women in water user committees improved their contribution to decision-making processes at the local level. The project thus made a positive overall contribution toward MDG attainment, and to the Tanzanian objective of raising the proportion of the rural

population with improved access to drinking water to 65% by 2010. Taken altogether, overarching developmental impact was assessed as satisfactory (rating: 3).

Sustainability: from a financial, personnel and organisational perspective, the project agency/ supply company will not be able to achieve the targeted results in future without external support. Operating revenues do not cover operating expenses and system maintenance costs. At the same time the distribution network in the supply zones shows a high need for rehabilitation. The rapidly advancing and poorly prepared decentralisation process, the drive for independence in various supply zones, and the unsatisfactory commercial and financial management of the water supply company (including inadequate tariff revenues and high commercial losses) all pose particular risks to the operation of the supply system. Of particular concern is the deterioration in provision that is foreseen - due to the declining availability of public water taps - for that section of the population (roughly 50 %) that is directly affected by poverty. Given this deterioration in the supply situation and service quality, without further risk reduction interventions (investments and consultancy services) the long-term results achieved will again be limited. The project's sustainability has been assessed as unsatisfactory (rating: 4).

Based on these individual scores, the overall evaluation that emerges is unsatisfactory (rating: 4).

General conclusions and recommendations

This evaluation has shown that, for large-scale supply systems in rural areas (where households have limited economic power), operational structures that are effective in the long term can only be built up over lengthy periods of time with correspondingly high expenditure on consultancy. Particular improvements targeted in supply volumes or, where necessary, supply quality can be achieved in comparatively shorter periods, through investments and/ or technical interventions. However, at the point in time when relevant technical objectives can be achieved, institutional development will not be sufficiently advanced to allow for sustainable operation.

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

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness (outcome), "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 rating that clearly exceeds expectations

2 Good rating fully in line with expectations and without any significant shortcomings

3 Satisfactory rating – project falls short of expectations but the positive results dominate

4 Unsatisfactory rating – significantly below expectations, with negative results dominating despite discernible positive results

5 Clearly inadequate rating – despite some positive partial results the negative results clearly dominate

6 The project has no positive results 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 a project which has no sufficiently positive results.

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. In using (with a project-specific weighting) the five key factors to form an overall rating, 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).