

Guinea: Rural water supply Fouta Djallon (Phases I and II)

Ex post evaluation

OECD sector	Water supply / 14030	
BMZ project ID	a) Phase I: 1995 66 159; 1995 70 490 b) Phase II: 2000 65 474	
Project executing agency	Service National d'Aménagement des Points d'Eau (SNAPE)	
Consultant	Beller Consult	
Year of ex post evaluation	2007	
	Programme appraisal (planned)	Ex post evaluation (ac- tual)
Start of implementation	(a) Q4 1995 (b) Q2 2001	(a) Q3 1996 (b) Q3 2001
Period of implementation	a) 4 years b) 4 years	a) 5.5 years b) 4.5 years
Investment cost	a) EUR 14.9 million b) 13.7 million	a) EUR 14.8 million b) EUR 13.1 million
Counterpart contribution	a) EUR 0.6 million b) EUR 0.9 million	a) EUR 0.5 million b) EUR 0.8 million
Financing, of which FC funds	a) EUR 14.3 million b) EUR 12.8 million	a) EUR 14.3 million b) EUR 12.3 million
Other institutions / donors involved	./.	./.
Performance rating	High degree of developmental efficacy (Rating 2 for Phases I and II)	
• Relevance	Rating 2 (Phases I and II)	
• Effectiveness	Rating 2 (Phases I and II)	
• Efficiency	Rating 2 (Phases I and II)	
General developmental impacts	Rating 2 (Phases I and II)	
Sustainability	Rating 3 (Phases I and II)	

Brief description, overall objective and project objectives with indicators

Both projects pursue the objective of satisfying basic household needs of the rural population in the programme region for drinking water from modern water supply systems on a long-term basis (project objective). To achieve this goal in the programme region in Central Guinea (provinces of Koubia, Mali, Lelouma, Télémilé, Labé, Tougué, Mamou) and in one province in Upper Guinea (Faranah), a total of 1,450 water points were built or rehabilitated and were expanded and made accessible to ensure the proper year-round extraction of water. In the framework of a complementary measure the population was sensitised with regard to improving the hygienic use of water and

the treatment of sewage and faeces and given training on the maintenance of modern water supply systems. The overall objectives of both phases of the project are the improvement of living conditions and the reduction of potential health risks from water-induced diseases for the population. The following indicators were defined to assess the achievement of the project objectives: the use of the water points by the target population, a minimum pro-capita consumption, knowledge about the hygienic use of water and water-induced diseases, the functioning of the water points and compliance with the WHO standards on drinking water quality. No indicators were defined for measuring the achievement of the overall project objective.

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

The two phases comprised the construction of more than a thousand drilled wells with a solid superstructure and foot or hand pumps, the rehabilitation of several dug wells and the construction of about 10 drilled wells, which were equipped with solar-powered submersible pumps and extended into small systems with public standpipes. A small number of springs were tapped and pilot latrines were also built in phase I. In addition to the technical measures, sensitisation and hygiene campaigns were carried out in both phases and training was provided for the members of the well committees.

Local well committees, which were set up in the course of the programme, are responsible for the operation and maintenance of the wells, including hand and foot pumps, springs and solar power systems. The operating and maintenance concept is based on the following elements: handling of the water supply systems by the users, visits by private pump mechanics, a network of spare part dealers and support and assistance offered by the rural water authority (Service National de l'Aménagement des Points d'Eau) and local and municipal authorities. Due to financial deficiencies, however, the local water authority is only able to a limited extent to fulfil its tasks, in particular monitoring of the system. The process of reforming the water authority, which was also supported in the context of the project, is progressing only very slowly. For example, due to the complete absence of a monitoring structure authorised pump mechanics are not replaced once they have moved away. Moreover, more costly preventive measures like the basic overhaul of the wells are not being implemented.

Apparently only few well committees seem to collect money on a regular basis. Current expenses are paid from "ad hoc" collections of money or from the cash balance.

The small solar-powered systems are equally operated by local operating committees. The only difference is that the treasurer and the standpipe attendants are being paid. In contrast to the village water points, the operation of the solar systems requires a relatively high degree of professionalisation in technical, financial and administrative terms. The members of the user committees are mostly illiterate and, with one exception, are unable even to meet the most simple operational requirements. Due to the deficiencies of the rural water authority it was not possible to meet the conditions stipulated in a framework agreement concluded with a private maintenance company.

Key results of the impact analysis and performance rating

The target/actual comparison of the indicators for the achievement of the programme objectives for phases I and II and the adjustments made with regard to the achievement of the overall objective produced the following results:

- Two years after the start of operation the share of the target population that is supplied from the modern water points established under the programme is 90%, which clearly exceeds the planned share of 70%.
- The current per-capital consumption is estimated to amount to 10 litres, which is just in the range of 10 to 15 litres defined at project appraisal. Surveys have re-

vealed that the water taken from the modern water points is deliberately used for cooking purposes and as drinking water and for minimum personal hygiene, while water from alternative sources is used mainly for washing laundry and clothes.

- More than 70% of the population have gained a basic knowledge about water-related diseases, about how to keep the well areas clean, and about water transport and storage. Thus, the relevant indicator has been achieved.
- At the time of the on-site inspection more than 90% of the systems visited were in working order (planned: 80%). WHO standards are equally being met at most of the water points. Only the tapped springs and the rehabilitated wells, which make up only a small portion of the total project, show a certain quality risk.

The project has led to a significant decline in the number of water-related diseases and, thus, to an improvement in the health situation of the population. According to information provided by people from the target group, skin and eye diseases have also occurred less frequently.

The project produced positive side-effects especially for the women in the programme villages, who have to spend less time for fetching water. Thus, their physical work is eased substantially and the time saved can be used for other productive activities. Moreover, the self-help approach of the project helped to strengthen the organisational capabilities and the sense of responsibility of the target group.

In summary and taking account of existing risks, we assess the programme impacts as follows:

- The project helped to solve the developmentally relevant core problem of a quantitatively and qualitatively insufficient water supply, which caused several water-induced diseases. The measures implemented are largely in line with today's requirements and the existing framework conditions, except for the fact that from an ex post point of view the installation of solar-powered systems would be dropped given the weak monitoring and support structures. Overall, the project's developmental relevance is good (sub-rating 2).
- The project objectives were met. Water consumption is at the lower end of the target corridor; still the water consumed is sufficient to satisfy drinking water and cooking needs. The programme design was suitable to contribute to improving the water supply of the under-supplied rural target groups and is basically in line with the demands and capabilities of the users and well committees. After weighing the individual aspects, we have come to the conclusion that the programme's effectiveness is good (sub-rating 2).
- The per-capita investment costs for the drilled wells and tapped springs are still acceptable. The financing provided for the component of small solar-powered water systems had a negative impact on the production efficiency because better results might have been achieved with alternative, more cost-efficient technologies. Still, given the low share of these costs in the total programme cost (5%) this does not lead to any downgrading. Current expenses are usually covered through ad-hoc collection of money. Taking all sub-criteria into account, we assess its efficiency to be sufficient overall (sub-rating 2).
- The health risks identified at project appraisal could be reduced significantly. The project generally contributed to bringing about structural changes in people's water consumption behaviour. However, the positive impacts might be considerably reduced for systems with potential bacteriological contamination and dirty well fields (currently < 12 %) or in the event of improper storage. Another negative aspect to be mentioned is that around 10% of the target group are not supplied with water from the programme systems. Nevertheless, the project helped to significantly reduce diarrhoeal diseases, in particular in children aged below five. Overall, the developmental impacts of the project are good (sub-rating 2).
- The sustainability of the technical operativeness of the hand and foot pumps is restricted due to the low monitoring and support activities of the control structures.

Due to the insufficient operating capabilities of the user committees and the unreliable support from existing maintenance structures there are risks to the operation and maintenance of the solar-powered systems. These two types of sustainability risks are due, among others, to the lack of progress in implementing sector reforms and in restructuring the project executing agency, which showed a bad overall performance in the last few years and does not properly fulfil its monitoring and support tasks. Nevertheless, we rate the sub-criterion of sustainability as still satisfactory (sub-rating 3).

Based on the criteria of significance/relevance, effectiveness and efficiency, we judge the programme "Rural water supply Fouta Djallon Phases I and II" to have attained a good degree of developmental effectiveness (rating 2).

General conclusions and recommendations

Given the high illiteracy rate in Guinea and the weak communication infrastructure, the accompanying use of rural radio programmes during the implementation of the staff support measures proved to be very successful. The inclusion of donor-financed school programmes also contributed to the success of the project. Another positive aspect to be mentioned is that only two uniform types of pumps are used throughout Guinea, namely the Vergnet type in the north of the country and the Kardia type in the south. This allows an economical and efficient spare-part stock keeping by local dealers. In countries where monitoring and support structures for user groups are weak it has to be examined critically whether solar-powered systems provide an appropriate technology in the event of operation of the systems by user groups.

Criteria for the evaluation of project success

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness, “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 result that clearly exceeds expectations
- 2 Good result, fully in line with expectations and without any significant shortcoming
- 3 Satisfactory result – project falls short of expectations but the positive results dominate
- 4 Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
- 5 Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
- 6 The project has no impact 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 an unsuccessful project.

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 a 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).