Benin: Cooperation Programme – Rural Water Supply (Phases 1 and 2)

Ex-post Evaluation Report

OECD sector	14030/Basic drinking water supply and basic sanitation	
BMZ project numbers	1997 65 371 and 1998 67 169	
Lead executing agency	Direction Général d'Eau in the Ministère des Mines, de l'Énergie et de l'Eau	
Consultant	IGIP	
Year of ex-post evaluation report	**2008**	
	Project appraisal (planned)	**Ex-post evaluation (actual)**
Start of implementation	Phase I: 3rd quarter 1998 Phase II: 3rd quarter 2002	2nd quarter 1999 3rd quarter 2002
Period of implementation	Phase I: 24 months Phase II: 36 months	28 months 36 months
Investment costs	Phase I: EUR 2.94 million Phase II: EUR 4.27 million	EUR 2.71 million EUR 4.11 million
Counterpart contribution	Phase I: EUR 0.1 million Phase II: EUR 0.2 million	EUR 0.1 million EUR 0.1 million
Finance, of which FC funds	Phase I: EUR 2.56 million Phase II: EUR 3.83 million	EUR 2.56 million EUR 3.84 million
Other institutions/donors involved	WB: EUR 0.3 million	EUR 0.2 million
Performance rating	3	
• Relevance	2	
• Effectiveness	3	
• Efficiency	2	
• Impact	3	
• Sustainability	3	

Brief Description, Overall Objective and Programme Objectives with Indicators

The initial pilot phase of the cooperation programme was confined to 9 districts in the Mono, Couffo, Plateau and Ouémé Departments. It was extended to include all 25 districts of these Departments in Phase 2. The FC programme measures comprised the rehabilitation and construction of rural water supply systems (bore wells, AEVs - adduction d'eau villageoise: local small distribution grids - and dug wells) and latrines. The individual measures were defined during implementation together with the user groups (open programme) and supported during preparation, execution and operation by TC activities in the programme region. The objective of the cooperation programme was to supply enough clean drinking water to the population in the programme region and improve sanitation at selected locations. The indicators were specified as a rise in supply rate in the programme departments to 47% (equivalent to supplying an additional 200,000 residents) by 2004, a basic-needs consumption of 10 l - 15 l per person, an 85% operational availability of the facilities by 2006 and water quality to WHO standards. The overall objective was defined as contributing to improving the conditions of life though a substantial reduction in health hazards to the population thanks to the permanent supply of sufficient drinking water. The target group consisted of about 20% of the rural population in the programme region. The programme executing agency was the Direction Générale de l'Hydraulique (DGH), which was renamed in the course of deglomeration Direction Générale de l'Eau (DG Eau).

Programme Design/Major Deviations from Original Planning and Main Causes

In the programme phases under review, the following building works were conducted: 24 small rural supply grids (AEV) plus 8 renovations, 152 bore wells plus 13 renovations with hand pumps financed by WB, 28 manually operated dug wells and 151 latrines, primarily in schools. As part of the open programme, most of the construction works were carried out as planned. Added to this were advisory inputs for executing the construction measures.

Besides support for the executing agency in implementing the sectoral strategy, the programme and an information system, the TC component also included awareness campaigns in the programme region. On behalf of the municipalities with GTZ funding, local NGOs conducted hygiene campaigns at the programme locations. The operating scheme was implemented as planned.

The technically straightforward, decentralised supply scheme was adapted to the regional conditions and despite lower than expected supply capacity resulted in a relatively cost-effective programme design. The facilities were put into operation as much as one year later than planned at programme appraisal. The facilities are of good structural quality. As direct operators of the water supply facilities, water committees were founded in every village, most of which are still active. Private operator schemes have now been initiated for AEVs at several locations.

Altogether, the operational scheme supported by the NGOs has proved generally effective. The FC and TC contributions were also well coordinated. The shortcomings are partly due to the complicated procedures of the organizational setup in the Beninese administration and the efforts to align programme design with this. Altogether, target-group use of the facilities is satisfactory.

Key Results of Impact Analysis and Performance Rating

The programme objective indicators were only achieved to a certain extent. The expectations on objective achievement were in part somewhat unrealistic prior to programme start, however. With the limited financial resources, no higher supply rate could be attained, as can be seen from the relatively low specific costs. The main operational risks still lie in sectoral reform (decentralization), the low technical competency at municipal level and the possible phase out of support for the water user committees by the NGOs.

A particular socio-economic benefit of this programme are the positive impacts on health. The village user groups operate the bore and dug wells and the AEVs on their own. By far the largest group of programme beneficiaries are poor sections of the population in rural areas, which can now meet their basic drinking water needs. The programme supported national, regional and local implementing agencies and institutions in their own efforts to comply better with legal provisions as part of decentralization. As an important secondary objective, participatory development was ensured by integrating the partners in planning, execution and operation. Poor people bore and still bear responsibility themselves in user groups.

To promote women's integration, at least one woman was represented in the water user committees at every location, thus helping to counter their widespread social discrimination. Also in NGO assignments at some places, women hold responsible positions, thus acting as positive and progressive role models in remote regions as well. Women also spend less time fetching water and the health risks to the small children in their care have been reduced thanks to the improved water supply.

The programme addressed a core problem of the rural population in Benin: water supply from hazardous, traditional sources. The programme scale was largely adequate to achieve the anticipated results and the technical design was appropriate as a whole. The programme was designed to involve the various tiers of government administration. Nevertheless, the operational scheme is still based on technical support from NGOs, as the local population or the municipal authorities lack sufficient capacity of their own. The developmental objective of the programme conforms with the aims of BMZ and the partner country. With the PADEAR[1] approach, the donors and the Beninese government pursue a common policy in the rural water sector. Despite the advantages of alignment with the Beninese administrative setup, it is impossible to predict the future of budget finance now being provided by some donors due to the very poor executive capacities till now. Altogether, relevance is assessed as good (Subrating 2).

The supply target of 47% was reached for the most part in three of the four programme departments, but not in Ouémé, so the programme fell slightly short as a whole. The rise in the number of those supplied by 200,000, as anticipated at programme appraisal, was not quite achieved, with about 60,000 in Phase I and some 110,000 in Phase II. At between 5 l and 15 l, the target basic-needs consumption of 10 l to 15 l at the FC-financed facilities was only just attained. The new water supply does, however, appear adequate to provide the population with enough for drinking and cooking. The target operational availability of 85% for the water supply facilities was reached for the AEVs (largest component of the programme) and the dug wells, but was not met for the bore wells (about 30% of the investment volume). On commissioning, all the wells were tested for water quality and some shortcomings were registered at the time. Altogether, though, water quality can be expected to have improved considerably compared with before programme start (frequently contaminated surface water). This cannot be verified, however, since no regular tests or chlorination are carried out. In part, expectations on target achievement at programme appraisal were slightly unrealistic. The volume of investment has not enabled an expansion of water supply capacity to the anticipated extent. The intended behavioural changes in water consumption to meet higher, necessary hygiene standards were also a little overoptimistic. Altogether, despite the successes achieved, effectiveness only merits a rating of sufficient due to the above shortcomings (Subrating 3).

[1] **P**rojet d' **A**ssistance au **D**éveloppement du sector d' Alimentation en **E**au potable et de l' Assainissement en milieu **R**ural.

The technically unsophisticated, decentralised supply scheme consisting largely of basic facilities resulted in cost-effective programme design, despite a slightly smaller supply capacity than expected (EUR 40 investment costs per user). The costs for operation and a significant share of the reinvestment costs are covered by the current water rates (between EUR 0.43 and 0.86 per m^3). This does not apply for some bore wells, however, where the user committees no longer secure payment. The target group is willing and able to pay, as evident from the higher costs paid for more convenient facilities (AEVs and private, motorized wells). The facilities were put into operation up to one year later than planned at programme appraisal. The beneficial programme impacts were therefore achieved after moderate delay. Altogether, efficiency is estimated to be good (Subrating 2).

In all probability, the programme has made a contribution to reducing health hazards to the population from water-transmitted illnesses since the results chain from programme objective to health impacts is plausible in view of the broad prevalence of these diseases in the region and the individual incidence indicates a positive development. The impacts are limited compared with expectations at programme appraisal to the same extent as the partial achievement of programme objectives. This applies for drinking water use per person, which is smaller than expected due to the persistent lack of adequate hygiene awareness and drinking water quality monitoring. The number of persons reached in the population is also smaller than assumed. Nevertheless, beneficial impacts are clearly discernible compared with supply from subsurface sources without the programme. Altogether, we assess the overarching developmental impact as sufficient (Subrating 3).

In general, the present operational organization with water user committees supported by the competent authorities and the animators would not seem to be fully sustainable. The current handover of responsibility from the regional offices to the municipalities poses a risk, as these have so far only been able to build up the necessary technical competence to a limited extent. A possible replacement of personnel in the technical units at the municipal authorities after local elections could exacerbate this problem in the short term. Possible remedies, such as institutionalized cooperation among several municipalities of a department in a special-purpose association are under discussion in the sector at present, but have not been implemented in the four programme provinces so far. The operational system will need long-term external support even after the delegation of major areas of responsibility to the municipal level, especially for financing the NGOs that manage the animators. Without their assistance, some water user committees in smaller localities in particular still appear unable to make applications for complex repairs or reinvestments or to properly manage the savings accounts to finance these upkeep measures. These savings accounts are currently well funded in most villages and there are no indications of any financial shortages. In the long run, though, localities that no longer charge rates will not be able to maintain facility operation, if they do not collect money for necessary individual repairs, which will, however, also cause delays. The calls to tender for private operators now underway may provide a lasting solution for sustainable financial management. A critical issue is the ability of the technical units in the municipalities as contracting parties to negotiate contracts with adequate incentives and assure systematic contractual management. Assuming continued external technical support, the existing facilities can be expected to maintain supply quality as a whole. At present, there are no clear prospects of fully autonomous sustainable development at quite a number of locations. Altogether, we assess sustainability as sufficient (Subrating 3).

Performance rating: 3

General Conclusions

German development cooperation should aim more for compliance with the coherence principle in decentralisation processes. This calls for sufficient finances for local/regional administrative divisions but also for timely, i.e. prior training of a sufficient number of qualified administrative personnel for the relevant specialisms, and incentives for retaining them.

The programme has shown that deploying animators employed by NGOs is a suitable way of ensuring the operation of water supply facilities in rural areas as well. Schemes should, however, be developed to gradually integrate this external support into the system.

Notes on the methods used to evaluate project success

Assessment criteria

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

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

Sustainability is evaluated according to the following four-point scale:

Rating 1	Very good sustainability	The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.
Rating 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.)
Rating 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.
Rating 4	Inadequate sustainability	The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and an improvement that would be strong enough to allow the achievement of positive developmental efficacy is very unlikely to occur. This rating is also assigned if the developmental efficacy that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

Criteria for the evaluation of project success

The evaluation of the developmental effectiveness of a project and its classification during the ex-post evaluation into one of the various levels of success described in more detail above focus on the following fundamental questions:

Relevance	Was the development measure applied in accordance with the concept (developmental priority, impact mechanism, coherence, coordination)?
Effectiveness	Is the extent of the achievement of the project objective to date by the development measures – also in accordance with current criteria and state of knowledge – appropriate?
Efficiency	To what extent was the input, measured in terms of the impact achieved, generally justified?
Overarching developmental impacts	What outcomes were observed at the time of the ex post evaluation in the political, institutional, socio-economic, socio-cultural and ecological field? What side-effects, which had no direct relation to the achievement of the project objective, can be observed?
Sustainability	To what extent can the positive and negative changes and impacts by the development measure be assessed as durable?