

Country Name	The Project for Rural Water Supply(Phase V)
Benin	Projet d'approvisionnement en eau potable dans la région rurale (Phase V)

I. Project Outline

Project Cost	E/N Grant Limit: 814 million yen	Contract Amount: 805.5 million yen
E/N Date	(Phase 1/2) June 2004, (Phase 2/2) July 2005	
Completion Date	(Phase 1/2) May 2005, (Phase 2/2) February 2007	
Implementing Agency	La Direction Général de l'Eau du Ministère des Mines, de l'Energie et de l'Eau (General Directorate of Water, Ministry of Mining, Energy and Water :DGEau)	
Related Studies	Basic Design Study: March – August 2003	
Contracted Agencies	Consultant(s)	Sanyu Consultants Inc.
	Contractor(s)	Nissaku Co., Ltd.
	Supplier(s)	Sojitz Corporation
Related Projects (if any)	<ul style="list-style-type: none"> • Construction of 310 water supply facilities (1998) (Grant Aid, DANIDA) • Construction of 50 water supply facilities (2000) (Grand Aid, UNICEF) 	
Background	<p>The Government of Benin envisaged an increase in the water supply ratio from 49% in 2002 to 64.7% in 2005 by construction of new water sources in 2,200 sites and rehabilitation of the existing water sources in 1,314 sites in order to serve safe water to 878,500 villagers by 2005. Also Departments of Collines, Zou and Couffo were identified at the high risk areas of Guinea worm disease. Since 1984, the Japanese government has supported Benin for improving accessibility of water by the grand aid project of “the Project for Rural Water Supply (Phase 1- 4)” and contributed to expansion of the water served population in the rural area of Benin.</p>	
Project Objectives	<p>Outcome</p> <p>To construct and rehabilitate the deep well facilities in Department of Collines, Zou and Couffo in order to increase the water served population in the target areas.</p>	
	<p>Outputs(s)</p> <p>Japanese Side</p> <ol style="list-style-type: none"> Construction of 113 deep wells with man- powered hand pump at 95 villages Rehabilitation of the existing 100 deep wells at 100 villages Procurement equipment for well boring, groundwater exploration and education for the local residents (Maintenance truck and vehicle, Vehicle for exploration, GPS, Groundwater survey equipment, Water quality test equipment) Procurement equipment for awareness campaign (Vehicles, Motorbike, Spare parts) Soft component regarding technical assistance for operation and maintenance of wells <ul style="list-style-type: none"> ➢ Strengthening the administrative organization concerning the awareness on good water use with hygiene and sanitary practices ➢ Establishment of O&M system of water (i.e. Water Management Committee) at 195 villages ➢ Training of pump servicepersons <p>Beninese Side:</p> <ol style="list-style-type: none"> Implementation of awareness campaign in the target villages Provision of land for well construction Provision of operation & maintenance (O&M) cost for the equipment procured by the project 	

II. Result of the Evaluation

Summary of the Evaluation
<p>Since there are few available water sources in Departments of Collines, Zou and Couffo, the local residents had to go a long distance for fetching water, which negatively affected children's education opportunities. Also due to drinking unsafe water taken from the existing water sources, chronic water-borne diseases including Guinea Worm, Cholera and diarrhea disease were widely spread in the areas.</p> <p>This project has largely achieved the objectives of improving accessibility of safe drinking water and improving sanitary and hygiene awareness of the local people in the target areas by construction of 113 deep wells and rehabilitation of the existing 100 deep wells as well as implementation of awareness campaign in the target areas. Also the project had positive impacts on reduction in water fetching labor and incidence of water-borne diseases.</p> <p>As for sustainability, some problems have been observed in term of structural and financial aspects due to lack of human and financial resources of the municipalities in the target areas which is the O&M agency of the project facilities and equipment.</p> <p>For relevance, the project has been highly relevant with Benin's development policy, development needs, as well as Japan's ODA policy at the time of both ex-ante and ex-post evaluation. For efficiency, the project period slightly exceeded the plan.</p> <p>In the light of above, this project is evaluated to be satisfactory.</p>

1 Relevance

<p>This project has been highly relevant with Benin's development policy (“improvement in accessibility of safe drinking water” in the Poverty Reduction Strategy Paper 2003-05 and the Growth and Poverty Reduction Strategy 2011-15), development</p>

needs (“reduction of water drawing labor and chronic water-borne diseases in Collines, Zou and Couffo”), as well as Japan’s ODA policy “the Japan’s Country Assistance Strategy to Benin” with priority area of human basic need including water supply at the time of both ex-ante and ex-post evaluations. Therefore, relevance of this project is high.

2 Effectiveness/Impact

This project has largely achieved its objectives of the increase in the water served population and water served ratio in the target areas. The water served population in the target area was increased from 674,250 in 2002 to 969,750 in 2007 and 2,159,357 in 2011. Similarly, the water served ratio in the target area was improved from 41% in 2002 to 56.5% in 2007 and 68.3% in 2011. The number of deep wells in use constructed and rehabilitated by the project was materialized as planned in 2007. According to the results of interview survey with more than 300 local residents including village chiefs, water management committee members and women in Collines and Zou, the sanitary and hygiene awareness of the local people was improved by the project. For example, the local people became to take care of their appearances such as taking bath twice or three times a day and washing their clothes frequently. They are also accustomed to cover the buckets and barrels to prevent any foreign matter from getting inside water. The water quality of deep wells in the target area satisfies the national water quality standards.

The project has positive impacts on reduction in water fetching labor and incidence of water-borne diseases. The labor time and distance for fetching water was significantly reduced by more than a half. It further led to improvement in educational opportunities for children and in social activities for women such as selling agricultural product in the market. Also according to the statistical data regarding the incidence of water-borne diseases in 4 municipalities such as Glazoue and Dassa in Collines and Zakpota and Zogbodomey in Zou, the number of diarrhea patients was reduced significantly in the areas due to the supply of good quality water. Guinea worm disease has been completely eradicated. It should be noted that the above mentioned achievement of project objectives and positive impacts are attributed not only by this project but also the precedent Japan’s grant aid projects and other factors including donors’ assistances(*).

No negative environmental impact was observed and the land acquisition was properly implemented according to the related guidelines and regulations in Benin. No resettlement of people was conducted.

Therefore, the effectiveness of the project is high.

Quantitative Effects

Indicator(unit)	baseline value (2002)	target value (2007)	actual value (2007)	actual value (2011)
Indicator 1 Water served population in the target area (people)	(Actual) 674,250	(Plan) 836,250	(Actual) 969,750	(Actual) 2,159,357
Indicator 2 Water served ratio in the target area (%)	41	45	56.5	68.3
Indicator 3 No. of deep wells in use constructed and rehabilitated by the project (no. of wells)	N.A.	New: 113 Rehabilitation: 100	New: 113 Rehabilitated: 100	New: 113 Rehabilitated: 98

Source: DGEau

Note 1: The project target area includes Departments of Collines, Zou and Couffo.

Note 2: Water served ration = Water served population in the target area / Total population in the target area.

Note 3: Beneficiary of the project is 162,000 local residents in 195 villages.

Note 4: Since the actual value at ex-post evaluation in 2012 was not available, the available actual value in 2011 was provided alternatively.

(*): Since 1984 the Japan has provided the grand aid project “the Project for Rural Water Supply (Phase 1)~(Phase 4)” to Benin for construction of deep wells and procurement of equipment. Until 2012, total 1,713 well facilities have been constructed by Japan’s grand aid and 2,453 by other donors in the project target area.

3 Efficiency

Although the project cost was within the plan (99%), the project period slightly exceeded the plan (103%) because of delays in the project implementation due to electoral process in 2006-2007. Outputs were produced mostly as planned. Therefore, efficiency of this project is fair.

4 Sustainability

Until 2009 the Water Management Committee (WMC) established in each village was fully responsible for O&M of the well facilities rehabilitated and constructed by the project. In case of maintenance beyond the capacity of WMC, pump service persons assist the WMC for the maintenance of the well facilities. The Service Department of Collines, Zou and Couffo under the GDEau was in charge of monitoring of the well facilities and implementation of awareness campaign in the target villages as well as O&M of equipment provided by the project.

However, due to the establishment of decentralization law, the above existing O&M framework was drastically changed and a new management system of rural water supply was introduced in 2010. After 2010, Municipalities (city level) in Collines, Zou and Couffo were mandated to be primarily responsible for O&M of well facilities in their respective administrative areas as an owner of the facilities. In the new management system, Municipalities can outsource the O&M work to the private managements, community representatives and NGOs as well as pump service persons. Also Municipalities are in charge of the O&M of the equipment provided by the project. The existing WMC has continued to be engaged in the O&M activities of the well facilities in a village level as O&M contractors. The role of the DGEau is limited to provide the technical advice to the municipalities.

Regarding the institutional aspect, though some problems may be observed in some Municipalities due to lack of staff specialized in water business management, in general, there are appointed staff who take care of all the facilities, including water facilities. But the situation is progressively generalized with specialized staff appointed, as recommended by decentralization law. Regarding the technical aspect, no problems are observed since most of Municipalities have technical capacities as far as well facilities are concerned and they receive technical supports from the DGEau from time to time. Municipalities manage to have preventive maintenance of well facilities once or twice a year. Also WMC and pump service persons have received technical training for maintenance of well facilities by the DGEau. Regarding the financial aspect, some problems are observed since Municipalities have a budgetary constraint by lack of financial resource collection through tax. The water fee collection system though WMC does not function well in some villages. Hence, operation and maintenance budget for the project facilities and equipment is partially not secured at present. The facilities and equipment of the project have been used continuously and severe malfunction of the water pump was not observed in the target areas. Therefore, sustainability of this project is fair.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency

- The number of staff at DGEau and Municipalities need to be increased; otherwise planning, implementing, monitoring and evaluating the projects would be difficult to realize. To accomplish these activities, the number of staff should be boosted up (civil engineer, social intermediation staff for example). Also DGEau needs to continue supporting Municipalities in institutional capacity development and monitoring for some more years due to the difficulties faced by Municipalities in implementing the new management system (capacity development, and transfer, financial support especially as social intermediation is concerned).

Lessons learned for JICA

- Sustainability of the project should be more emphasized through soft component projects (sensitization actions, capacity development, support to NGO and private contractors who engage in O&M activities) and look to integrate other schemes: volunteers program, experts, etc. Besides, regular monitoring system should be implemented by DG Eau and Municipalities for other similar projects if any (The Project for Rural Water Supply, phase 6).



Community of Legbaholi, Village of Allahe, Department of Zou



Community of Fidjrosse, Village of Zogbodomey, Department of Zou