

Country Name	<b>Project for Rural Water Supply III</b>
Republic of the Gambia	

### I. Project Outline

Background	In Gambia, more than 30% of the people in the rural area did not have access to safe water (2010) and were exposed to risk of water-borne diseases. The Government of Japan has supported for construction of the water supply facilities through two grant aid projects (in 1991-1993 and 2004-2008). To meet the demands for safe water in other priority areas, the project for construction of solar-powered water supply facilities and rehabilitation of some existing water supply facilities was requested by the government of Gambia to the government of Japan.			
Objectives of the Project	To provide safe water in 18 sites in 4 Regions (Western Region, North Bank, Lower River and Central River) by constructing water supply facilities and rehabilitating existing water supply facilities, thereby contributing to improvement of the access to safe water in the whole country.			
Contents of the Project	<ol style="list-style-type: none"> <li>1. Project Site: 18 sites in 4 Regions (Western Region, North Bank, Lower River and Central River)</li> <li>2. Japanese side: i) Construction of solar-powered piped water supply facilities in 15 sites and rehabilitation of existing water supply facilities in 3 sites, and ii) technical assistance for the residents in the target sites on operation and maintenance of the water supply facilities and health/sanitation.</li> <li>3. Gambian Side: Provision of land for the facility construction, etc.</li> </ol>			
Project Period	E/N Date	March 18, 2010	Completion	July 31, 2012
	G/A Date	March 18, 2010	Date	
Project Cost	E/N Grant Limit: 897 million yen, Actual Grant Amount: 565 million yen			
Executing Agency	Ministry of Fisheries, Water Resources and National Assembly Matters			
Contracted Agencies	Main Contractor: Ebara Corporation Main Consultant: Nihon Techno Co., Ltd.			

### II. Result of the Evaluation

< Special Perspectives Considered in the Ex-Post Evaluation >

- At the ex-ante evaluation, “decreased water borne diseases” and “decreased labor burden of water fetching of women and children” were considered as qualitative effects. These are effects as results of improvement of water supply in the target sites, and therefore they were verified as impacts of the project at the ex-post evaluation.

#### 1 Relevance

<Consistency with the Development Policy of Gambia at the Time of Ex-Ante and Ex-Post Evaluation>

The project was relevant with the development policies of Gambia, as safe water supply has been prioritized in the “Poverty Reduction Strategy Paper (PRSP) II” (2007-2011) and “National Development Plan” (2018-2021).

<Consistency with the Development Needs of Gambia at the Time of Ex-Ante and Ex-Post Evaluation >

The ratio of population with access to safe water was approximately 75% (2010). The situation was more severe in the rural areas (ratio: less than 70%), where people took water from rivers and ponds and were exposed to risks of water-borne diseases. They still have needs for safe drinking water at the ex-post evaluation survey, as recognized by the Department of Water Resources (DWR) of the Ministry of Fisheries, Water Resources and National Assembly Matters.

<Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation>

As priority areas in the Japan’s ODA to Gambia<sup>1</sup> included basic livelihood such as water supply and agriculture/fishery for food security in accordance with PRSP II, the project was consistent with Japan’s ODA policy at the time of ex-ante evaluation.

<Evaluation Result>

In light of the above, the relevance of the project is high.

#### 2 Effectiveness/Impact

<Effectiveness>

The project aimed at providing safe water in the target 18 sites in 4 Regions, and it is judged that the objective was achieved. Furthermore, 10 sites<sup>2</sup> were visited for this ex-post evaluation, and it was confirmed that the water supply facility constructed by the project have been used. They are used to their maximum capacity, 35L per person per day. In the 18 target sites, safe water has been provided to more than 43,200 people since the project completion. The accurate data after 2013 were not available, but according to DWR, the beneficiary population has been increasing because more people have come to reside in the target sites in pursuit of the available safe water.

As a result of the training given by the project, the village water committees (VWCs) of the surveyed sites have maintained and respected the documents for operation and maintenance (O&M) such as the internal regulation of VWC, O&M Operation Plan, and regulation on the water use. It can be said that the base of collaboration has been established among VWC, O&M company (a private company which undertakes O&M under contract with VWCs), DWR and local government. In particular, VWCs are in high contact with O&M company. For example, whenever problems occur with the facilities, VWCs communicate with O&M company and get support on the same day. VWCs understand whom they should contact in the local government when they have a problem. So far, there has never been such need because VWCs can solve the problem with O&M company and DWR. Villagers have sustained learnings from

<sup>1</sup> Ministry of Foreign Affairs (2011). “ODA Databook 2010.”

<sup>2</sup> The following sites were visited: Jissadi Complex, Sotokoi, Kerewang Samba Sira, Fula Bantang and Sinchu Bora, Fass (Central River Region), Toniataba, Bureng, Barrow Kunda (Lower River Region), Kabocorr and Tampopo and Killy (Western Region) and Ker Katim Wollof and Fulam (North Bank Region).

the training on hygiene, such as keeping clean the water supply facility including the public faucet and water storage tank, having the latrine far from the water point, washing hands after toilet and before eating, and so on.

<Impact>

Firstly, no prevalence of cholera, ameba dysentery or diarrhea has been reported in the 18 target sites since the project completion. According to the DWR officers, the decrease in water borne diseases has been attributed to the available safe water from the constructed and converted water supply facilities and improved hygiene practices. Secondly, the burden of fetching water has been greatly reduced. In the 10 visited sites, it took 30 to 40 minutes before the project, but now it takes 5 minutes on the average, because the facility was constructed nearer the residences. According to approximately 130 villagers (VWC members and families) in the visited 10 sites who were asked about the change after the project completion, the burden of fetching water was reduced, and then children have more time to go to school and women have more time for home matters and also income generating activities. Thirdly, as more water is available than before the project, quarrels and violence have been reduced among women, according to the interviewed villagers though they had often fights about the volume of water fetching before the project.

<Evaluation Result>

In light of the above, the effect of the project has been observed mostly as planned. Therefore the effectiveness/impact of the project is high.

Quantitative Effects

Indicator	Baseline 2009	Target 2012 Completion year	Actual 2012 Completion year	Actual 2013 1 year after completion	Actual 2014 2 year after completion	Actual 2015 3 year after completion	Actual 2016 4 year after completion
Number of the people served with safe water in the target 18 sites (person)	8,100	43,200	43,200	n.a.	n.a.	n.a.	n.a.
<Supplementary information> Water provided per person per day (litter/day/person) in the target 18 sites	n.a.	35L	35L	35L	35L	35L	35L

Source: DWR.

3 Efficiency

Outputs were produced as planned. The project cost was within the plan, but the project period exceeded the plan (ratio against the plan: 63% and 117%, respectively). The reason of the delayed project completion is that one target site had been replaced by another because the water quality did not comply with WHO guidelines and also construction method was changed in three sites. Therefore, the efficiency of the project is fair.

4 Sustainability

<Institutional Aspect>

Main stakeholders related to O&M of the constructed and rehabilitated water supply facilities are VWC (villagers), O&M company and DWR. VWCs are responsible for O&M of the facility. In each of the surveyed sites, VWC has been organized, which includes an operator, tap attendant and guard. The number of the members of VWC varies among the sites (11-31), which is sufficient for daily O&M, according to the villagers. Moreover, in each site a Village Health Worker (VHW) identified by each VWC and trained by the project has conducted activities for villagers' awareness raising on the environmental cleanliness and hygiene. DWR undertakes monitoring of the water facilities and assigns 1-2 motivators in each of the target Regions. According to the interviewed local government officers, the number of the motivators is sufficient because they have time to visit the target sites in turn. They are given a mobile phone and motorcycle to facilitate their communication with the villagers. On the other hand, a request to increase motivators was raised by some villagers for emergent breakdown cases. Information on the breakdowns is verbally exchanged among VWCs, O&M company, motivators and DWR when there is any kind of emergency.

<Technical Aspect>

VWC members have sufficient techniques for O&M of the facility, as they have conducted minor repair of water pipes and faucets, according to DWR officers. VWC's O&M is monitored and supported by the motivators who follow the Motivator's Manual developed by the project. When the breakdown is beyond VWC's capacity, they call for support of O&M company. DWR officers answered that also O&M company has sufficient techniques for repair water facilities including the solar pumping system. VHW have sufficient knowledge on hygiene as they received pre-service trainings from the Ministry of Health and Social Welfare and conduct the activities based on the manual on the participatory hygiene education, which was developed by the preceding project and modified by the project.

<Financial Aspect>

As shown in the table as an example, all VWCs opened a bank account and keep the accounting book to manage its fund, which is monitored by the ledger. All of the surveyed VWCs have kept the balance positive since 2013. All VWCs have collected user fees (5.0 GMD per m<sup>3</sup> which is higher than the government price, 2.3 GMD)<sup>3</sup> from the villagers without problem and the revenue has been sufficient for repair and honorarium of the guard. DWR has collected the joint maintenance fund from VWCs through O&M company. The fund is added for DWR's works to monitor and support VWCs. Although the budget allocation from the government to DWR is not abundant, it is sufficient to conduct field visit for monitoring VWCs, according to DWR.

Table: Revenue and expenditure of VWC (Barrow Kunda)

	2013	2014	2015	2016
Revenue	97,306	116,430	138,287	NA
Expenditure	51,521	78,033	88,125	NA
Balance	45,785	38,397	50,152	NA

Source: VWC of Barrow Kunda.

<Current Status of Operation and Maintenance>

O&M company conducts visits for inspection and repair works including adjustment of the solar pumping system when needs arise.

<sup>3</sup> It was recommended by the Preparatory Survey Team that user fees would need to be increased to cover the facility update in 20 years.

It is also in charge of quarterly reading meters and reporting to DWR on O&M of the water facilities. VWCs are responsible for recording the maintenance inventory quarterly and reporting to DWR when necessary. The guard employed by VWC takes care of the facility every night and cleans the solar modules nearby twice a month. Water facilities have had small problems such as water leakage and breakdown in the water meter, but they were solved within 72 hours. Necessary spare parts and consumables are procured and managed by VWCs and O&M company. DWR monitors O&M company's works based on the monitoring plan and upon necessity.

<Evaluation Result>

In light of the above, no problem has been observed in terms of the institutional, technical, financial aspects of the executing agency. Therefore, the sustainability of the project effect is high.

#### 5 Summary of the Evaluation

The project objectives have been achieved. Through the constructed and rehabilitated water supply facilities, the number of the people served with safe and stable water has increased in the 18 sites as planned. Through technical trainings of the project, VWCs have operated and maintained the facilities in collaboration with O&M company and DWR, and have become conscious of safe and efficient use of the water. As a result, there has been no prevalence of water-borne diseases and the burden of fetching water has been reduced. Regarding the sustainability, responsibilities of VWCs, O&M company and DWR are clearly demarked, which has been properly functioning for O&M of the facilities. There is no major concern in the technical and financial aspect. As for the efficiency, the project period exceeded the plan.

Considering all of the above points, this project is evaluated to be highly satisfactory.

### III. Recommendations & Lessons Learned

Recommendations to Executing Agency:

- All VWCs have kept the fund balance positive so far. As it is necessary to update the facility in 20 years, it is recommended to DWR to show the update cost and give direction to VWCs so that they could save the fund for renewal of the water facility.
- Current information sharing on the breakdown of the water supply facilities is done among VWCs, DWR, motivators and O&M company in a verbal manner or with a quarter report. In order to institutionalize this information sharing, it is recommended to DWR to establish an appropriate database or information sharing system on the water supply facilities and breakdowns.

Lessons Learned for JICA:

- Since the project completion, water facilities have been appropriately maintained and operated for safe and stable water in the target sites. This success has three factors. First, a clear demarcation on repair between VWCs and O&M company. The contract between the two and VWC regulations clearly state what kind of breakdowns should be fixed by VWCs and what kind of breakdowns should be reported to O&M company for repair. Second, O&M fund is co-managed by VWCs, DWR and O&M company, to enable fee collection as planned with transparency and to secure financing funds for the repair requiring large amount of budget. Third, regular monitoring and communication are conducted by DWR and VWC. In projects of water facility construction where villages are responsible for O&M, it is important to involve a private O&M company and make agreements with clearly stated documents on the monitoring, repair, fund management and communication.



Solar panel of the water facility



Water tank of the water facility



Public faucet