

Country Name Republic of Gambia	The Project for Rural Water Supply (Phase II)
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**I. Project Outline**

Project Cost	E/N Grant Limit: 276 million yen (Stage I), 256 million yen (Stage II), 296 million yen (Stage III)	Contract Amount: 275 million yen (Stage I), 252 million yen (Stage II), 292 million yen (Stage III)
E/N Date	(Stage I) September, 2004, (Stage II) June, 2005, (Stage III) July, 2006	
Completion Date	(Stage I) March, 2006, (Stage II) March, 2007, (Stage III) January, 2008	
Implementing Agency	Department of Water Resources (DWR), Department of State for Fisheries and Water Resources	
Related Studies	Basic Design Study: August, 2003-February, 2004	
Contracted Agencies	Consultant(s)	Stage I-III: Japan Techno Co., Ltd.
	Contractor(s)	Stage I-III: Nissaku Co., Ltd.
	Supplier(s)	-
Related Projects (if any)	<u>Cooperation by Japan</u> <ul style="list-style-type: none"><li>• The Project for Rural Water Supply (Phase I) (Grant Aid, 1991-93)</li><li>• The Project for Rural Water Supply Phase III (Grant Aid, 2010-2012)</li></ul> <u>Cooperation by Other Donors</u> <ul style="list-style-type: none"><li>• SSP I-III (Construction of deep wells and shallow wells) (Saudi Arabia, 1984-85, 1985-87, 2001-04)</li><li>• Solar pump systems (European Development Fund, 1992-95, 1998-99, 1997-02, 2002-03)</li></ul>	
Background	In Gambia, 47% of rural population still depended on unsafe water despite that supply of good quality drinking water in less developed rural areas was the most prioritized issue. In that context, the Project for Rural Water Supply (Phase I) had been implemented under the grant aid by Japan since 1992. However, since it was suspended due to the coup in July, 1994, the construction of water supply facilities could not be completed in 20 villages out of the 30 target villages. In addition, depreciation of the Gambian currency and escalation of diesel price constrained procurement of sufficient volume of diesel as fuel for operation of the water facilities constructed by the Project Phase I. Therefore, the government of Gambia requested Japan to support construction of water facilities with solar pumping systems in the rest of 20 sites and convert the existing facilities to solar system.	
Project Objectives	<u>Outcome</u> To supply safe water to the population in the target areas by construction and rehabilitation of water facilities in 29 villages in North Bank Region, Lower River Region, West Coast Region and Central River Region.	
	<u>Outputs</u> <u>Japanese Side</u> <ul style="list-style-type: none"><li>• Construction of deep wells and water supply facilities in 20 sites</li><li>• Rehabilitation of existing water pumping system in 4 sites</li><li>• Provision of vehicles and necessary equipment for maintenance of deep wells and water facilities</li><li>• Soft component: institutional building for operation and maintenance (O&amp;M) of the water supply facilities by the villagers; hygiene education; and strengthening monitoring and supervising capacity of DWR and local governments for O&amp;M of the water supply facilities.</li></ul> <u>Gambian Side</u> <ul style="list-style-type: none"><li>• Land preparation</li><li>• Preparation of access roads</li></ul>	

**II. Result of the Evaluation****Summary of the Evaluation**

In the rest of 20 sites within the target areas, due to the suspension of the Phase I of the Project, about 90% of the sample households still depended on shallow wells contaminated by coliform. The villagers had been facing problems, including shortage of safe water, time consuming water fetching caused by congestion at the existing water sources, long distance to the water sources, frequent troubles of hand pumps, and heavy work load to pump up water. On the other hand, in the sites where the constructions of water facilities were completed by the Project Phase I, the villagers also faced shortage of safe water due to limited operating hours of the water facilities since they cannot afford fuel for the operation of water facilities.

The project has achieved the objectives of supply of safe water to the population in the target areas due to the adequate operation of deep wells and the increase in available volume of safe water. As for sustainability, some problems have been observed in terms of structural and financial aspects as well as current status of operation and maintenance due to the limited coverage of the maintenance contract with local maintenance companies, the limited budget for regular visits for the project sites by motivators to supervise O&M and leaks of the water tanks.

For relevance, the project has been highly relevant with Gambia'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, both the project cost and the project period were within the plan.

In the light of above, this project is evaluated to be highly satisfactory.

## 1 Relevance

This project has been highly relevant with Gambia's development policies of the Poverty Reduction Strategy Papers 2003-2005 and 2007-2011 ("provision of adequate and good quality of water"), development needs ("stable access to safe water and improved sanitation of households"), as well as Japan's ODA policy to Gambia for provision of BHN, including safe water, at the time of both ex-ante and ex-post evaluation. Therefore, its relevance is high.

## 2 Effectiveness/Impact

This project has achieved its objectives of supply of safe water to the population in 24 villages in North Bank, Western and Lower River. All the 24 wells installed by the Project are operated adequately through the year though the number of deep wells installed by the Project decreased from 29 to 24 due to the cancellation of rehabilitation work for the existing facilities in 5 sites. The available volume of safe water increased from 15-20 litter per person per day before the Project to 35 litters in 2009 and has been sustaining at the time of ex-post evaluation in 2012. In addition, the population with access to safe drinking water in the target sites increased from approximately 50,000 in 2003 to 60,000 in 2009. Since a project by the European Commission (EC) and the Project Phase III by JICA covered the 5 sites where this Project Phase II could not cover, the coverage of population expanded to approximately 75,000 in 2012. As a result, the coverage ratio of water supply in rural areas of Gambia also increased to 64% in 2009 from 53% in 2002.

The installation and rehabilitation of deep wells brought about improvement of water quality in the project sites which fulfills the WHO/Gambian standards for drinking water. In addition, the improvement of water quality reduced water borne diseases, in particular, diarrhea and dysentery in 22 communities surveyed by the ex-post evaluation. Also, the Project contributed to reduction of time and burden of water fetching for women and children. Since the water taps were installed every 100 persons according to the policy of the government of Gambia, accessibility of villagers to water tap significantly improved. According to the site survey covering 22 sites, the longest distance to the nearest tap is 40 meters. According to the interview, the women in the project sites can spend more time for income generating activities because of less burden of water fetching.

In addition, health and sanitation practices of the villagers and sanitary environment in the project sites improved thorough the hygiene education campaigns introduced by the soft component of the Project. The increase in water supply to health centers and schools in the project sites improved sanitation and environment of those facilities.

Regarding the environmental and social considerations, no adverse environmental and social impact has occurred by the Project (no land acquisition problem or resettlement). However, it was found that more water induces planting of trees (reforestation) in the target areas.

Therefore, effectiveness/impact of this project is high.

## Qualitative Effects

	Actual (2003, BD)	Target (2015)	Actual (2009)	Actual (2012) (Ex-post evaluation)
Indicator 1: The number of deep wells installed by the Project which can be operated adequately through the year	(Actual) 9 existing water supply facilities were limitedly operated.	(Plan) 29 wells	(Actual) 24 wells	(Actual) 24 wells
Indicator 2: Increase in the population with access to safe drinking water in the project sites of 29 villages	(Actual) Approximately 50,000 people	(Plan) Approximately 80,000 people	(Actual) Approximately 60,000 people	(Actual) Approximately 75,000 people
Indicator 3: Increase in available water volume/person/day through the year	(Actual) 15-20 litter per person per day	(Plan) 35 litter per person per day	(Actual) 35 litter per person per day	(Actual) 35 litter per person per day

(Source) Site surveys in 6 villages in North Bank, 2 villages in Western and 9 villages in Lower River / Field Survey during the Ex-post Evaluation.

## 3 Efficiency

Both the project cost and project period were within the plan (ratio against the plan: 98% and 88%). Due to the sharp depreciation of exchange rate and price escalation, the outputs have been changed but were appropriate. Therefore, efficiency of this project is high.

## 4 Sustainability

The water supply facilities constructed or rehabilitated by the Project are operated and maintained by the Villager Water Committees (VWCs) under the support and the supervision of DWR. A total of 12 DWR field staff (motivators) provides necessary technical, administrative and moral supports for VWCs. For the major repair of the solar pumping

systems, a local maintenance company (private service provider) is responsible by entering a maintenance contract with VWCs. 15 VWCs out of 22 VWCs have enough management capacity of VWC, including tariff collection, the rest of VWCs still have room to improve their capacity, in particular management of their funds. There is need for frequent visits to be undertaken by the DWR motivators to continue to guide the communities and to provide the necessary support. Although the motivators trained under the software component of the Project have the capacity to train the communities, but the budgetary constraints of DWR has been limiting factor. Because of the same constraints, the Motivators are not able to carry out routine monitoring of the water supply facilities in the project sites. Most of VWCs keep enough funds to cover necessary expenses for daily O&M of the water facilities. While annual revenue of VWCs ranges from GMD18,000 to GMD127,000, the communities spend on repairs and other forms of managing their systems which varies from GMD20,000 to GMD70,000 annually. In the case of communities to be improved, their VWCs are regularly having a meeting to ensure that the required maintenance funds are collected. The total budget allocated to the Rural Water Supply Division of the Department of Water Resources is not enough to cater for the numerous follow up visits required to be made to the Project sites. On the other hand, all the water supply facilities in the 24 sites are functioning and well maintained. No cracks and leakages on tanks constructed under Phase I. However, leaks of the water tanks due to cracks of concrete part were observed at most of the new installation sites of Phase II visited during the ex-post evaluation field survey. The cracks were repaired during the warranty period but some signs of leakages persisted.

The Project has some problems in structural and financial aspects as well as the current status of operation and maintenance due to the issues mentioned above. Therefore, sustainability of this project is fair.

### **III. Recommendations & Lessons Learned**

#### Recommendations for Implementing agency

- In order to ensure sustainable operation and maintenance of the water facilities, DWR needs to allocate more budgets for the activities by the motivators including their regular visits in the communities to provide necessary support for the VWCs.
- It is recommended that DWR facilitate changes in the maintenance contracts with local maintenance company (private service provider) in order to cover repair of pipe network, borehole and tank.

#### Lessons learned for JICA

- Since the cracks of concrete part of the water tanks may be caused by mismanagement of construction process, it is necessary to put more attention on supervision and control by the consultant over the works by subcontractors, in particular works for the major part of facilities such as concrete works of water tanks, in order to ensure quality and sustainability of the facilities installed by project.
- The soft component of the Project largely contributed to capacity building of the motivators of DWR who support VWCs activities. It is important to enhance capacity of such motivators in order to assure effectiveness and sustainability of rural water supply project since capacity of water committee at village level is key for operation and maintenance of water supply facilities.



Public water tap in Fass



Water supply facilities in Jali Sering Mass



Water supply facilities in Medina