

## Simplified Ex-Post Evaluation for Grant Aid Project

Evaluator, Affiliation	Junko Miura Global Link Management Inc.	Duration of Evaluation Study
Project Name	The Project for Rural Water Supply (Phase II)	March 2010—December 2010

### I Project Outline

Country Name	Republic of Uganda	
Project Period	December 2003 (Detail Design)-March 2006 (Completion of soft component)	
Executing Agency	Ministry of Water, Land and Environment (MWLE), Directorate of Water Development (DWD)	
Project Cost	Grant Limit: 599 million yen	Actual Grant Amount: 585 million yen
Main Contractors	Both Construction and Procurement: Nissaku Co.Ltd.	
Main Consultants	Pacific Consultants International Co. Ltd. and Mitsubishi Materials Natural Resources Development Corp.	
Basic Design	“Basic Design Study on the Project for Rural Water Supply in Central Uganda”, Pacific Consultants International Co. Ltd. and Mitsubishi Materials Natural Resources Development Corp., August 2003	
Related Projects (if any)	<p>1. Grant Aid Project “Rural Water Supply in the Republic of Uganda” from 1997 to 2001. The target areas include three districts: Mpigi, Mubende and Kiboga, which are next to the target areas of this Project.</p> <p>2. In Mukono district, NGOs assisted excavation of boreholes at four locations. NGOs also assisted all the target areas in establishing water sanitation committees in cooperation with local governments.</p>	
Project Background	<p>Since 1990s, rural water supply projects were carried out in large scale with the assistance by DANIDA, UNICEF. The Government of Japan started a grant aid project in 1997. The number of wells excavated by donors including Japan between 1991 and 2000 reached 9,354, which drastically improved water supply situation in the rural area. Although the national average of rural water supply rate was 54.9% in 2002, the rural water supply rate in each district ranged from 23.7% to 79.9%, which showed gaps between districts.</p>	
Project Objective	To construct wells with hand-pumps and to provide equipment for ground water investigation and for educational campaign in Masaka, Mukono and Kayunga District in order to provide clean and stable water.	
Output[s] (Japanese Side)	<p>&lt;Facility&gt; Tube well with hand-pumps</p> <p>&lt;Equipment&gt; Equipment for ground water investigation and for educational campaign</p>	<p>&lt;Soft component&gt; Educational activities for sustainable operation and maintenance of the water facilities by local communities (workshops for communities/ water sanitation committees, workshops for Community Development Assistants and Health Assistants, training for Hand-Pump Mechanics, etc)</p>

### II Result of the Evaluation

Summary of the evaluation
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• This project has been highly relevant with the country's development plan and development needs both at the time of planning and ex-post evaluation, as well as Japan's ODA policy at the time of planning, therefore its relevance is high. Both project period and project cost were within the plan, therefore efficiency of the project is high. Decline in the cases of water-borne diseases, which was assumed to be an indirect effect of the project, could not be measured quantitatively. But, this project has largely achieved its objectives, namely the improvement in rural water supply rate, served population in rural area and water quality parameters, therefore its effectiveness is high. Some problems have been observed in O&M status of wells, therefore sustainability of the project effects is fair. In light of the above, this project is evaluated to be highly satisfactory.

<Recommendations>

• It is recommended for the Directorate of Water Development (DWD) to identify the condition of wells that are not functioning, determine whether the problem is due to the technical skills of the water supply officers and/or hand-pump mechanics (HPMs) or another problem, and then to take appropriate action.

• It is recommended for JICA to provide follow-up cooperation, including re-training of the HPMs, depending on the status of the aforementioned situation.

<Constraints of this evaluation study>

1. The evaluation was conducted based solely on the data that could be obtained from a review of the materials and questionnaires given to the implementing organization, so it does not include data that could be confirmed through direct observation, i.e. the maintenance conditions;
2. when using data in questionnaire responses, the raw data was not confirmed;
3. statistical data on the decline in the rate of outbreaks of water-borne diseases, which was assumed to be an indirect effect of the project, could not be obtained, so we were unable to confirm this quantitatively;
4. residents' perception on the water tariff were not known because a survey on their willingness to pay (WTP) was not conducted; and
5. when confirming the actual monthly charge per household, the selection of one village per district was not a random sample, but left up to the implementing organization.
6. Due to the lack of a field study, there was no opportunity to hold discussions with the executing agency regarding the recommendations.

1 Relevance

(1) Relevance with the Development Plan of Uganda

When the project was planned, the Poverty Eradication Action Plan (PEAP; 1997) designated roads, agriculture, healthcare, education and sanitation as the five priority areas. Moreover, the Rural Water Supply Operational Plan 2002-2007 (OP5) targeted the construction of 4,000 water supply facilities places per year (water supplied population of 1 million). The current Rural Water and Sanitation Strategic Investment Plan 2000-2015 (SIP15; 2002) aims to achieve a rural water supply rate of 100%. In addition, the Rural Water Supply Operational Plan 2008-2013 (OP6) continues to target the construction of 4,000 water supply facilities per year. Thus, this project was consistent with Uganda's development policy both at the time of planning and the ex-post evaluation.

(2) Relevance with the Development Needs of Uganda

When the project was planned, in Masaka district, Mukono district and Kayunga district, the water access rates were 34.5%, 59.1% and 48.6%, respectively, which was quite low. This made the construction of water supply facilities in rural areas with large impoverished populations an urgent issue. Moreover, as a result of decentralization, authority over the implementation of water supply and sanitation projects was being ceded from the Ministry of Water and Environment's Directorate of Water Development (DWD) to the District Water Offices (DWOs), making it essential that the project implementation capacities of DWOs be strengthened. At the time of the ex-post evaluation in 2009, the national average rural water supply rate stood at 65%, higher than that of 2002 (54.9%) when the project was planned. Although this represents an increase, the rate is still low. Moreover, due to the high population growth in the target areas, the number of wells remains insufficient, with the number of users per well at 688 in the Masaka district (about double the target), 1,895 in Mukono (about six times higher) and 893 in Kayunga (about three times higher), compared to the target of 300 users per well. Accordingly, the need for the construction of rural water supply facilities in the targeted districts remained high even when the ex-post evaluation was conducted. Reinforcing the project implementation capacities of the district water offices also remains an issue. Thus, this project is consistent with Uganda's development needs both when it was planned and when the ex-post evaluation was conducted.

(3) Relevance with Japan's ODA Policy

The priority areas agreed on in the Economic Cooperation Policy Discussions (1997) and the Project Assessment Study (1999) were (1) human resource development, (2) basic human needs support, (3) agricultural development and (4) basic economic infrastructure development. Therefore, it can be said that this project was consistent with Japan's aid policy for Uganda when the project was planned.

This project has been highly relevant with the country's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

2 Efficiency

#### (1) Project Outputs

The outputs of the Japanese side were mostly as planned. The planned total length of dug wells was 11,970 meters whereas the actual length was 12,131 meters (101% of the planned). The planned number of successful wells was 120 whereas the actual number was 116 (97% of the planned). The procurement of the equipment and soft component were carried out as planned.

#### (2) Project Period (Project Inputs)

The planned project period was 29 months whereas the actual project period was 28 months. Thus, the project period was shorter than planned (97% of the planned).

#### (3) Project Cost (Project Inputs)

The planned project cost was 599 million yen whereas the actual project cost was 585 million yen. Thus, the project cost was lower than planned (98% of the planned).

Both project period and project cost were within the plan, therefore efficiency of the project is high.

### 3 Effectiveness / Impact

#### (1) Quantitative Effects

Whereas the targets for the rural water supply rate in the Masaka district, Mukono district and Kayunga district for 2006 were 36.3%, 60.8% and 50.9%, respectively, the actual rate were 68%, 61%, and 52% in 2006. Thus, those met their targets. Whereas the targets for the rural water supply population for 2006 (304,944, 356,495 and 247,610), the actual population was 315,263 people (103% of the target), 393,004 people (110%) and 265,896 people (107%) in Mukono and Kayunga, respectively, in 2006. Therefore, those also met their targets. Since there were no reports of wells dug with aid from other donors and NGOs in the Masaka district and Kayunga district, it is considered that the increase in the rural water supply rate and rural water supply population was due to the effect of this project alone. Meanwhile, in the Mukono district, domestic and international NGOs provided support in excavating wells at four locations, so we can assume that the increase in the rural water penetration rate and rural water supply population was due to the effect of this project and the assistance by NGOs.

Whereas some of the water quality parameters in the target villages exceeded national standards at the time of the project planning, all of the target villages satisfied all the water quality parameters at the time of the ex-post evaluation. The number of Water and Sanitation Committees (WSCs) continuing to collect water supply charges in the target villages met the targets for 2006 in Masaka, Mukono and Kayunga (49, 33, and 38 for a total of 120) with 50, 56 and 52 (total of 158) WSCs. However, these figures include not only WSCs established by this project, but also WSCs established with the cooperation of NGOs and local governments. The number of WSC established by the project was 31, 41 and 44 (total of 116), which is the same as the number of wells built in each village. The number of these WSCs that continue to collect water supply charges is not known.

The equipment provided to DWD is fully utilized. See below "4. Sustainability" for the operation status of the wells. The manuals for the water quality inspection kits provided to the districts were in Japanese, so they were only partially used. None of the equipment was used for other purposes.

#### (2) Impacts (Impacts on the natural environment, Land Acquisition and Resettlement, Unintended Positive/Negative Impact)

Statistical data on the decline in the cases of water-borne diseases, which was assumed to be an indirect effect of the project, could not be obtained, so we were unable to confirm this quantitatively. However, according to DWOs, there have not been any large-scale outbreaks of water-borne illnesses since this project was completed. The implementation of this project did not have a negative impact on the natural environment, and no problems arose in the land acquisition process. No residents were relocated.

This project has largely achieved its objectives, therefore its effectiveness is high.

### 4 Sustainability

#### (1) Structural Aspects of Operation and Maintenance

As planned, the water supply facilities built in this project are maintained by the WSCs established for each water supply facility as part of the implementation of soft components. The Ministry of Water, Land and the Environment (MWLE), the Ministry of Gender, Labor and Social Development (MGLSD) and the Ministry of Health have provided support at the district level, county level and sub-county level. MWLE has Water Supply Officers at the District Water Offices (DWOs) and the county level, and private-sector Hand-Pump Mechanics (HPMs) at the sub-county level to help the residents maintain their water supply facilities. MGLSD has community development officials at the district level and village development assistants at the sub-county level to provide support. The Ministry of Health appoints health officers at the district level and health assistants at the sub-county level to provide support.

WSC is responsible for daily inspection and cleaning of the wells and regular replacement of the pumps' consumables, including those costs. In principle, HPMs repair sudden malfunctions of the pump. DWD/DWO make the repairs in the event that HPM are not able to.

According to the implementing organization, the recommendations made in the Basic Design Report—(1) strengthen the capacity of DWOs in implementing water supply and sanitation projects, (2) cooperation between MWLE and MGLSD in order to efficiently carry out public awareness and educational programs, and (3) secure human resources to set up a sustainable hand pump repair and inspection system—have all been carried out.

#### (2) Technical Aspects of Operation and Maintenance

Through the soft component, community workshops, training for HPMs and OJT for Water Supply Officers have all been held. Moreover, HPMs in the target villages in the Masaka district (that were targeted in the first phase of this project) received refresh-training through the soft component. According to the defect inspection report in the second phase (2007), these villages did not experience the kind of pump malfunctions caused by the HPMs' repair mistakes in villages in the Mukono district and Kayunga district that were targeted in the second phase. This indicates that the HPMs' technical skill was adequate as of 2007 at least. In the defect inspection report, it was recommended that refresh training should be conducted for all HPMs after the project was completed

since the HPMS in the Mukono and Kayunga districts were not able receive refresh-training through the soft component. However, as of the ex-post evaluation, only six HPMS in Mukono and five in Kayunga had attended a second round of training due to financial constraint. As noted in the “effectiveness” section above, approximately 23% of the successful wells targeted in this project are not currently functioning. This could indicate that the technique of the HPMS or DWO water supply officers is insufficient, although the cause is not clear.

### (3) Financial Aspects of Operation and Maintenance

The budgets both for DWD and three districts have decreased since 2007. However, according to DWD, it continues to secure the budget necessary for operation and maintenance, including the employment of staff involved in rural water supply and sanitation projects. This factor had been listed as an external risk in the ex-ante evaluation summary.

The actual monthly cost per household in three villages in the target districts was higher than estimated when the project was planned. Whereas the estimate was 403 UGS assuming 50 households per well, the actual costs are 500 UGS in Kasokoso Village in Mukono district, which has 200 households; 2000 UGS in the Wabuyinja Village in Kayunga district, which has 70 households; and 1000 UGS per household for Kiteredde Village in Masaka district, which has 35 households. A survey on willingness to pay (WTP) was not conducted so the residents’ perception on water supply charges is not known.

### (4) Current Status of Operation and Maintenance

27 wells (10 in Masaka, 7 in Mukono and 10 in Kayunga) of 116 wells (23% of the successful wells targeted in this project) are not functioning and cannot be used. The reasons for mal-function are not clear. Spare parts for the resistivity measurement equipment and electrical well logging equipment donated to DWD cannot be obtained in Uganda, thus it is being ordered and the equipment will be repaired as soon as the parts are obtained.

Some problems have been observed in terms of O&M status, therefore sustainability of the project effects is fair.