

Internal Ex-Post Evaluation for Grant Aid Project

conducted by South Africa office (Angola Field Office): October, 2011

Country	The Project for Emergency Rural Water Supply in Neighboring Provinces of Luanda
Angola	

I. Project Outline

Project Cost	E/N Grant Limit: 432 million yen	Contract Amount: 344 million yen
E/N Date	July, 2006	
Completion Date	March, 2008	
Implementing Agency	National Water Directorate (DNA: Direccção Nacional de Águas), Ministry of Energy and Water (MINEA: Miniséro de Energia e Águas)	
Related Studies	Basic Design Study: July, 2005 to March, 2006	
Contracted Agencies	Consultant(s)	Japan Engineering Consultants Inc.
	Contractor(s)	N/A
	Supplier(s)	1 st lot: Toyota Tsusho Corporation, 2 nd lot: Sojitz Corporation
Related Projects (if any)	Other donors' cooperations: Construction of water supply and sanitation facilities in 11 provinces, including in Bengo and Cuanza Sul (2005-2008)	
Background	In Angola, social infrastructure to sustain the people's life was destroyed and devastated by the civil war which had continued until April 2002 since the independence of the country in 1975. In particular, rural population has been suffering from harsh living conditions, such as chronic water shortage and water-borne diseases caused by unsanitary water. After the end of the civil war, the government of Angola aspired to expand the coverage ratio of water supply in the country to 70% in "the Strategy for Development of Water Sector 2002-2016" (Stratégia para o Desenvolvimento do Sector das Águas). In particular, development of water facilities was an emergent issue for the provinces of Bengo and Cuanza Sul where many internal displaced persons (IDPs) returned and most population were affected by the civil war. Although the government of Angola developed a plan to develop water supply facilities, the fiscal difficulties constrained to implement it by themselves. Therefore, the government of Angola requested the government of Japan grant aid to support the implementation of the plan.	
Project Objectives	Outcome	To secure stable supply of safe water in the target areas by provision of drilling equipment for development of deep wells in the 70 villages located in Bengo Province and Cuanza Sul Province.
	Outputs	<p>Japanese Side</p> <ul style="list-style-type: none"> - Construction equipment for deep wells (Drilling machines, boring tools, high pressure air compressor equipped on board of truck, hand pumps, etc.) - Training equipment (parts of hand pump) <p>Angola Side</p> <ul style="list-style-type: none"> - None for the Project but for construction of deep wells, including cost for geophysical surveys, drilling works, consulting services, spare parts of hand pumps, and so forth.

II. Result of the Evaluation

Summary of the Evaluation
<p>This Project aimed at construction of deep wells of 77 in Bengo and 100 in Cuanza Sul. The coverage ratio of water supply was 12% in Bengo and 3% in Cuanza Sul, and developments of underground water had been still limited in these provinces. Since most of population in the two provinces could not have access to safe water, construction of water supply facilities was urgent needs there.</p> <p>This Project has achieved stable supply of safe water to more than 100,000 inhabitants in the 70 target villages of the two provinces. At the time of ex-post evaluation, the coverage of water supply exceeded 40% in the both provinces. In addition, the Project contributed to a decrease in water-borne diseases and improvement of living conditions in the target areas. However, the number of constructed deep wells by the construction equipment provided by the Project was below the planned target due to delays of construction works by the Angola side. As for sustainability, no problem was observed basically. The construction equipment provided by the Project have been well-maintained by experienced and skillful technicians and utilized for surveys of underground water and construction of deep wells. In addition, the operation and maintenance system for the developed deep wells by the Project, including collection of water charge, has been developing through establishment of water management committees by village users. For relevance, the Project has been highly relevant with Angola's policy for development of underground water, development needs for water supply utilizing underground water, as well as Japan's ODA policy. For efficiency, the project period slightly exceeded the plan. In the light of above, this project is evaluated to be satisfactory.</p>

1 Relevance
<p>This project has been highly relevant with the Angola's development policies of "the Strategy for Development of Water Sector 2002-2016" and "the Plan of Exploration of Underground Water Resources 2002-2006" (Plano de Exploração de Recursos Hídricos Subterrâneos), development needs for securement of safe water by development of rural water supply facilities utilizing underground water, as well as Japan's ODA policy. Therefore its relevance is high.</p>
2 Efficiency
<p>Although the project cost was within the plan (ratio against plan: 80%), the project period exceeded the plan (ratio against plan: 131%) due to the time consuming delivery of the equipment provided by the Project, caused by the congestion in the port of Angola, the delay</p>

of custom clearance, as well as coordination among the related ministries of Angola. Therefore, efficiency of this project is fair.

3 Effectiveness/Impact

The Project has partly achieved its objective to ensure stable supply of safe water in 70 target villages. Since it took longer time to coordinate between the central and provincial governments and to select contractors, the construction of deep well to be implemented by the Angola side has been behind schedule. The total number of deep wells developed was far below the planned target: 39 wells in 2009 and 108 wells in 2011. The delays of construction brought about slower achievement of expected outcomes. However, according to DNA, the equipment installed by the Project have been utilized for groundwater surveys and deep well construction besides this Project despite of no concrete data provided by DNA. As a result, the Project has been contributed to promotion of groundwater development in the target provinces. Whereas the total population with stable access to safe water in the target villages exceeded 93,000 persons as of 2011, the coverage ratio of water supply increased to 43% in Bengo and 45% in Cuanza Sul. In addition, improvement of living conditions through safe water supply in the target villages resulted in indirect impacts, such as a decrease in the case of diarrhea among the people utilizing the developed deep wells and reduction of the case of cholera in Cuanza Sul. Therefore, its effectiveness/impact is fair.

	2005 (Base Year)	2009 (Target Year)		2011 (Ex-post Evaluation)
Indicator 1 : The number of deep wells developed	(Actual) N.A.	(Plan) 177 wells in the 70 target villages	(Actual) 39 wells	(Actual) 108 wells (Bengo: 60, Cuanza Sul: 48)
Indicator 2 : The population who can stably use safe water in the target villages	(Actual) Bengo: 0 Cuanza Sul: 0	(Plan) Bengo: 29,932 Cuanza Sul: 67,599	(Actual) N.A.	(Actual) Bengo: 31,700 Cuanza Sul: 61,403
Indicator 3: The coverage ratio of water supply in the target provinces	(Actual) Bengo: 12% Cuanza Sul: 3%	(Plan) Bengo: 31% Cuanza Sul: 19%	(Actual) N.A.	(Actual) Bengo: 43.3% Cuanza Sul: 44.6%

(Source: DNA and Provincial Directorates of Energy and Water of Bengo and Cuanza Sul)

4 Sustainability

There is no problem observed in operation and maintenance of the equipment installed by the Project. The equipment have been well maintained and utilized for underground surveys as well as construction of deep wells by technicians of the Department of Water Supply and Sanitation (DAAS: Departamento de Abastecimento de Águas e Saneamento) and the Unit of Groundwater (NAS: Núcleo de Água Subterráneo). DNA is responsible for budgeting to construct water supply facilities. Under the coordination with the Provincial Directorates of Energy and Water (DEPA: Direção Provincial de Energia e Água), DAAS, a department under DNA, is in charge of water source surveys while NAS, an accounting entity of DNA, is engaged in construction works, including drilling of wells. The sufficient budget (2.27 million USD in 2011) for exploration of underground water and maintenance for the equipment in the both provinces of Bengo and Cuanza Sul has been ensured. Although there was no change in an organizational structure for construction of water supply facilities and no problem in technical level of technicians of DAAS and NAS, there is still room to improve time consuming implementation process due to the lack of office facilities and management system of DPEAs. In terms of the deep wells developed by the equipment of the Project, the operation and maintenance systems managed by the village users have been established through activities by the extension workers of the Social Mobilization Group under DPEAs in order to establish the water committees and to conduct technical trainings for operation and maintenance of water facilities. During the period from 2005 and 2011, 4 Social Mobilization Groups were organized and the extension workers were trained by supports of UNICEF. In particular, the water charge system has been established in Bengo. In the province, while 37 water management committees have been functioning to collect water tariff, the voluntary village meetings for management of water supply facility have been held in the villages where the water management committee has not been established yet. Despite that the level of water tariff differs according to conditions of each village within a range between 1 and 2 USD per month, there was no problem observed in collection of water tariff. Therefore, sustainability of the project is high.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

In the target provinces, the construction of deep wells has been promoted by utilization of the equipment installed by the Project since DNA and DPEA have experienced technical staff. However, smooth and quick implementation of a groundwater exploration plan is indispensable to meet the needs for safe water in these provinces. Therefore, it is strongly recommended that DNA and DPEA shall facilitate coordination among the relevant organizations and strengthen their implementation arrangements. In particular, it is necessary for DPEA to improve its management, including expansion of technical and management staff as well as infrastructure development such as internet environment and in-house power generator.

Lessons learned for JICA:

In the case that an implementing agency has enough technical level and experiences, grant aid project whose support is limited to installation of equipment, enables the implementing agency to construct deep wells autonomously, maintain the equipment adequately, and utilize those equipment effectively and sustainably. In addition, the construction cost can be reduced under responsibility of a recipient country. Therefore, the construction of deep wells by the recipient side is preferable from aspects of efficiency and sustainability of construction project. Also, human resource development of DAAS and dissemination activities to villagers supported by UNICEF contributed to enhancement of villagers' awareness concerning operation and maintenance of deep wells despite of no soft component to support operation and maintenance by villagers under this Project. Thus, in order to ensure sustainability of project effect, it is necessary to separately implement supports for sustainable operation and maintenance of deep wells by villager users, or to incorporate a strategic linkage with activities supported by experienced donors into a project.



Drilling Machine installed by the Project



Deep well developed by the equipment provided by the Project and the Users