

Country Name	Water Supply and Hygiene Improvement Project in Host Communities of Dadaab Refugee Camps
Republic of Kenya	

I. Project Outline

Background	<p>Located in Kenya's Northeastern Province near the border with Somalia, the Dadaab refugee camp admitted 450,000 Somali refugees, despite being originally designed to accommodate 90,000 persons. Due to the constant refugee influx, the camp continued to be sprawling. This caused negative impacts on the Kenyan host communities in the vicinity, such as indications of deteriorated environment and public security. Over time, the observable disparity in living conditions between the Kenyan host communities and the refugee camps became problematic. Having resided in a semi-arid area with less than 300 mm of annual rainfall, local Kenyans were distressed by a scarcity of water, whereas refugees could rely on foreign assistance for their basic needs. To assist to mitigate the situational gap, it was deemed urgent to support a better water supply for the Kenyan host communities to improve the basic living conditions. Moreover, between 2011 to 2012, a severe drought of "the worst in 60 years," struck the entire East African region. While Kenya was burdened with the crisis that ensued from the drought, an ever-increasing number of refugees from southern Somalia fled to Kenya. In response to the situation, the scope of livelihood assistance was extended in the project.</p>				
Objectives of the Project	<p>Through the construction of deep well water supply facilities and reservoirs, procurement of 4WDs and water trucks, and training for improving the maintenance, management, and sanitation of the water supply facilities, the project aims at improving access of eleven host communities of the Dadaab refugee camps to water supply, thereby contributing to the improvement of living conditions in the host communities in Garissa County, Kenya.</p> <ol style="list-style-type: none"> Overall Goal: living conditions in host communities of Dadaab refugee camps are improved through the water supply. Project Purpose: access to potable water and livestock water supply are improved in eleven host communities of Dadaab refugee camps. 				
Activities of the Project	<ol style="list-style-type: none"> Project site: Dadaab Sub-county, Lagdera Sub-county, and Jarajilla division, Fafi Sub-county in Garissa County Main activities: 1) improvement of water supply facilities in host communities, 2) strengthening of operation and management (O&M) capacity of Water Users Associations (WUAs), 3) improvement of water storage facilities in host communities, 4) procurement of water supply equipment as emergency drought response, 5) procurement of school equipment as emergency drought response. Inputs (to carry out the above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 3 persons Equipment: 4WDs, water trucks, water tanks, power generators, pumps, school furniture for refugee camps and Kenyan host communities, etc. Local cost: administrative costs. </td> <td style="width: 50%; vertical-align: top;"> <p>Kenyan Side</p> <ol style="list-style-type: none"> Staff allocated: 5 persons Facilities: Offices for the experts Local cost: Administrative and operational expenses Construction of water supply facilities and reservoirs in 2 communities (financed by Counter Part Fund) </td> </tr> </table> 			<p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 3 persons Equipment: 4WDs, water trucks, water tanks, power generators, pumps, school furniture for refugee camps and Kenyan host communities, etc. Local cost: administrative costs. 	<p>Kenyan Side</p> <ol style="list-style-type: none"> Staff allocated: 5 persons Facilities: Offices for the experts Local cost: Administrative and operational expenses Construction of water supply facilities and reservoirs in 2 communities (financed by Counter Part Fund)
<p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 3 persons Equipment: 4WDs, water trucks, water tanks, power generators, pumps, school furniture for refugee camps and Kenyan host communities, etc. Local cost: administrative costs. 	<p>Kenyan Side</p> <ol style="list-style-type: none"> Staff allocated: 5 persons Facilities: Offices for the experts Local cost: Administrative and operational expenses Construction of water supply facilities and reservoirs in 2 communities (financed by Counter Part Fund) 				
Project Period	(ex-ante) November 2010 – October 2012 (actual) November 2010 – October 2012	Project Cost	(ex-ante) 785 million yen, (actual) 849 million yen		
Implementing Agency	Northern Water Works Development Agency (NWWDA) (created and replaced the Northern Water Services Board under the Water Act 2016)				
Cooperation Agency in Japan	--				

II. Result of the Evaluation

<Constraints on Evaluation>

- Due to travel restrictions and lockdown measures raised during the COVID-19 Pandemic as well as the security reason of the sites, data gathered in remote areas during the ex-post evaluation was lower both in quantity and quality as on-site data collection and direct observation were not as feasible as planned. Nonetheless, mitigation measures were taken as follows; 1) rely more on existing monitoring data collected prior to COVID-19, 2) increase scope of desk-based review of administrative data, 3) use of remote data collection (e.g. telephone interview) and analysis methods where available.

< Special Perspectives Considered in the Ex-Post Evaluation >

No conventional evaluations were conducted prior to the ex-post evaluation

- The project design matrix with befitting indicators was not set forth and omitted to give a basic structure to evaluate the project. Inevitably, how to measure the achievement of the project purpose and the overall goal was retroactively reframed as shown in the box below based on each planned output and objective. Note, however, that it was impossible to set any numerical targets due to a lack of baseline data. It should be thus examined the information/data pertaining to the conceivable outcome of the output entailed in the target host communities selected along with multiple objectives and urgency at the times of project completion and the ex-post evaluation.
- Furthermore, according to the Record of Discussion, it was agreed at the outset that Counterpart Fund of Japan's Grant Assistance for unprivileged farmers (namely, 2KR) 2008 shall be utilized for; 1) drilling 11 boreholes, 2) construction of water supply facilities in host communities, 3) other equipment or construction which were mutually agreed upon between Kenyan and Japanese sides. Also, it was confirmed that the Kenyan side shall

take full responsibility for the utilization of the Counter Part Fund as the premise. Thus, irrespective of all the irregularities mentioned above as a technical cooperation project, it was imperative to be jointly accountable through assessing how the Fund was utilized to complete the target areas in order to achieve the agreed purpose of the project.

- After reframing the project activities, it was eventually agreed that two host communities were added to the list of original 11 target host communities for output 3 (construction of water storage facilities) and the portion was financed by the Counterpart Fund.

1 Relevance

<Consistency with the Development Policy of Kenya at the Time of Ex-Ante Evaluation >

The project was consistent with the development policies of Kenya at the time of ex-ante evaluation. The “Kenya Vision 2030” (2008) addressed the target of the ratio of water supply in rural areas to be 59 %, aimed at promoting from the level of 40 % at the time. Furthermore, to fulfill the mandate, the Ministry of State for Development of Northern Kenya & Other Arid Lands was newly established by the Government of Kenya in 2008. It manifested the political importance in the development of the target area of the project.

<Consistency with the Development Needs of Kenya at the Time of Ex-Ante Evaluation >

The project was consistent with the needs of Kenya at the time of ex-ante evaluation. Dadaab is situated in the North-Eastern part of Kenya, only about 90 km distance from the border between Somalia. As of 2010, the refugee camp in Dadaab hosted approximately 30 thousand refugees. Situated in semi-arid land with an annual rainfall of 300 mm or less, residents in the host community in Dadaab were traditionally pastoralists relying on scarce water and fuelwood in their livelihood. Thus, they were negatively affected by the expansion of refugee camps as it caused deterioration of the local natural environment, decline in public safety, and consumer price hikes. Moreover, a severe drought struck the entire East African region in 2011. It was thus an urgent need to respond to the crisis in the project area.

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

The project was consistent with Japan’s ODA policy towards Kenya. According to the five priority areas addressed in Japan’s assistance program for Kenya (2000), the project was consistent with two areas, specifically the community development through the improvement of livelihood in semi-arid land and water quality management and groundwater development.

<Evaluation Result>

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

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of Project Completion>

The Project Purpose was partially achieved by the project completion. Regarding better access to the water supply in the target host communities, Borehole drilling was completed in all 11 host communities, however, the O&M training for WUAs had not been as intensive as planned due to the delay in construction. As for water storage facilities in 13 host communities, the construction was delayed in 2 communities financed by the Counterpart fund (Indicator 1). Regarding rehabilitation of the water supply equipment in the drought-hit area, the project rehabilitated a total of 20 water wells in the areas as planned by a two-phased approach (Indicator 2). Furthermore, concerning the improvement of the school environment in the drought-hit area, the project was not finished providing the planned scope of school furniture and auxiliary equipment for primary schools. Nonetheless, it was duly arranged to work with the United Nations High Commissioner for Refugees (UNHCR) to complete the scope of work (Indicator 3).

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have continued since project completion. At the time of the ex-post evaluation survey, it was reported that out of the 13 sites where water storage facilities were constructed, 11 sites are fully functional whereas one site is partially functional and one other site is not functioning. In terms of management, all WUAs were trained on the operations and management of the water facilities, and the 11 sites have managed to keep the engagement of the communities and ensured water supply activities on the right track. This can also be observed with the target sites where all rehabilitated boreholes at the time of the survey were fully functioning, and all delivery trucks were in operation. The project brought about various positive outcomes in the area through concerted efforts of Development Partners (i.e., World Bank, World Vision, Fafi Integrated Development Association (FAIDA)) and the County Government of Garissa. Notably, the UNHCR supported the project in part of distribution and management of school equipment. It has consequently contributed to the sustainability of school furniture.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal had been partially achieved at the time of ex-post evaluation. It was reported that, despite a recurring drought incident and a steady population increase over the years, the living condition of host communities has improved in many aspects as a result of the project interventions (Indicator 1). The achieved water availability contributed to reducing the potential dangers of water-borne diseases. General hygiene has also improved. Children can fully attend school, as being released from water-fetching as their daily chores. Also, an increase in livestock coincided with an increase in economic activities in the target areas. The capacity to provide a steady water supply has also resulted in a stable increase in population and, a proportional increase in water demand in the communities. The project mobilized local people to plant and grow trees in the areas to create an environment congenial to settle. However, the knowledge and technique of the O&M of water supply facilities have not been disseminated to other host communities in Dadaab refugee camps, as the majority of WUAs’ members have not been equipped with ample teaching abilities. Also, as they have limited literacy skills, it was considered hard to instruct the O&M even through the written manuals (Indicator 2).

<Other Impacts at the time of Ex-post Evaluation>

As stated above, the project can promote a water supply to cover around 92% of host community members for their drinking water as well as for managing livestock. As a result, more women could become engaged in local commercial activities such as shopkeeping. The change is discerned in the areas where the boreholes have been operational and thus, women could have diversified the time use as they no longer need to walk a long distance to fetch water. Furthermore, a stable water supply from the boreholes has impacted the socio-economic status in a subtle but significant way; those who used to have a nomadic lifestyle have inclined to be settled. Furthermore, the improvement of a water supply has attracted pastoral farmers from other districts, resulting in a higher concentration of livestock and a change in mobile pastoral patterns in the region. On the other points of concern, there was no resettlement and land acquisition caused by the project, and thus there were no ramifications to do with them.

<Evaluation Result>

Therefore, the effectiveness/impact of the project is fair.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results	Source
<p>(Project Purpose) Access to potable water and livestock water supply are improved in eleven host communities of Dadaab refugee camps.</p>	<p>The project contributed to providing better access to the water supply in the target host communities. (Output 1) Water supply facilities in 11 host communities are improved. (Output 2) Operation and Maintenance capacity of Water Users Associations (WUAs) are strengthened. (Output 3) Water storage facilities in 13 host communities are improved.</p>	<p>Status of the Achievement: partially achieved (continued) (Project Completion) (Output 1) Borehole drilling was completed in all 11 host communities: Fafi center, Fafi Ajin center, Amuma center, Yumbis center, Dadaab, Mathahgesi, Damajaley, Hamey, Shitley, Nambarah, Dalsan (Output 2) Due to the delay in the preceding construction, other organizations excavated boreholes in the originally planned sites (after changing from Dertu to Damajale, finally decided in Maleiley).As such training timetable had to be pushed back. To complete the WUAs training sessions by the time of installation of the equipment, the community sensitization had to be conducted less frequently than originally planned. (Output 3) According to the completion report, the construction was completed in 11 target communities, although it was still under construction in the additional 2 target communities financed by the Counterpart Fund (Hagabuul and Maalim Mohamed). 13 target communities: Hagabuul , Maalim Mohamed , Fafi center, Fafi Ajin center, Amuma, Yambis center, Dadaab, Mathahgesi, Damajaley, Hamey, Shitey center, Nambarah, Dalsan (Ex-post Evaluation) 11 boreholes were drilled of which 10 are fully functional and the only one that is not functional in target host communities. Eight water pans were constructed to realize additional 160,000m3 water storage. Seven of the pans were fully functional whereas only one was not at the time of the survey. As for the capacity of WUAs, despite some managerial challenges, WUAs have maintained the 10 drilled boreholes fairly well and continued to engage the community in carrying out O&M activities. Concerning the reservoir construction of 13 host communities, the construction of two reservoirs that were still under construction at the time of completion was completed. However, at the time of ex-post evaluation, 10 reservoirs were fully functioning, two of them were partially functioning, whereas one of them was not working as desired. Also, it is confirmed that development partners and non-governmental organizations have given considerable support to the 3 districts of Fafi, Lagdera, and Dadaab.</p>	<p>NWSB Progress report 2nd May 2013 Expert's Project completion report, p.3 NWWDA's Responses to the survey questionnaire & Telephone interview</p>
<p>The project contributed to rehabilitating the water supply equipment in the drought-hit area. (Output 4) Emergency drought response water supply equipment are procured</p>	<p>The project contributed to rehabilitating the water supply equipment in the drought-hit area. (Output 4) Emergency drought response water supply equipment are procured</p>	<p>Status of the Achievement: achieved (continued) (Project Completion) The project rehabilitated a total of 20 water wells in the areas as planned: • <Phase I> a set of equipment (16 generators, 15 submersible pumps, etc.) for rehabilitation of 10 water wells provided to the following communities. Wajir, Garissa, Dilmanyaley, Gurufa, Baraki, Shamt-abak, Meri, Sabule, Dagahaley, Dadaab, Yumbis, Ruqa, • <Phase II> a set of equipment (10 generators, 10 submersible pumps, etc.) for rehabilitation of 10 water wells provided to the following communities. Wajir, Lagboghool East, Harakhotkhot, Absemet 1 & 2, Garissa, El-humo, Dadajbula, Biyamadow, Kumahumato, Liboi, Well Har borehole, Dadaab, Haragadera borehole 5, Alinjugur, Walmerer (Ex-post Evaluation) The population in the area has shown an increasing trend in the area despite the severe climate challenge since 2012. It corroborates the reported status of well-functioning water wells and a set of equipment provided by the project. Also, to keep the water supply accessible in such a sustainable way, it was confirmed that development partners and the County Government of Garissa have made a joint effort of supporting the area</p>	<p>NWSB Progress report 2nd May 2013 NWWDA's Responses to the survey questionnaire & Telephone interview</p>
<p>The project contributed to the school environment in the drought-hit area. (Output 5) Emergency drought response school equipment are procured</p>	<p>The project contributed to the school environment in the drought-hit area. (Output 5) Emergency drought response school equipment are procured</p>	<p>Status of the Achievement: partially achieved (continued) (Project Completion) It was planned to provide school furniture and auxiliary equipment for primary schools located in Dadaab Refugee camp and 13 host communities. It was not completed at the time of project completion. ➤ 60 schools in Dadaab refugee camp • 36,000 sets of desk and chair ➤ 13 schools in host communities • 295 beds and 590 mattresses procured for (Senior Chief Ogle, Shant-abak, Afwein, Dertu, and Amuma communities) • 795 sets of desks and chairs were procured for (Madina, Nanighi, Dadajbula, and Dahgahaley communities) • 4 PV systems were procured for (Abakore, Jalango, Warable, and</p>	<p>NWWDA's Responses to the survey questionnaire & Telephone interview NWWDA's Responses to the survey questionnaire & Telephone interview</p>

		<p>Kumahumato communities)</p> <p>(Ex-post Evaluation)</p> <p>Since project completion in 2012, the distribution of school furniture and PV system has been coordinated by the UNHCR. The final distribution was completed in the year 2020 as residents could not handle the equipment as prescribed. With the assistance, the number of pupils has moderately increased over years, and yet the status of the school furniture and the PV system has been fully utilized with necessary maintenance.</p>									
<p>(Overall Goal)</p> <p>Living conditions in host communities of Dadaab refugee camps are improved through the water supply.</p>	<p>The status of living conditions in the host communities in the following aspects:</p> <p>(1) Natural environment (2) Public safety (3) Hygiene/sanitation (4) Primary education</p>	<p>(Ex-post Evaluation) achieved</p> <p>Although the target area recurrently experienced drought and population increase (2012-2020) by approximately 11.7% over the past years, the living conditions were generally improved through the realization of a stable water supply.</p> <table border="1"> <tr> <td>Natural environment</td> <td>The project launched sensitization and awareness campaigns on reforestation and environment and water management for host communities. In response, the community participated in planting trees and creating an even environment for settlement. (Noted, however, along with the population growth, those trees have been cutting down for the construction of shelters and use for cooking. In addition, scarcity of firewood has been identified.) .</td> </tr> <tr> <td>Public safety</td> <td>They recognized being protected against potential dangers of water-borne diseases. On this realization, the communities ensured water facilities were well protected which led to longer use of the water facilities.</td> </tr> <tr> <td>Hygiene/sanitation</td> <td>The availability of water ensured improved hand wash as well as proper use of sanitation at all levels of operation.</td> </tr> <tr> <td>Primary education</td> <td>The quality of education for children who had failed to go to school regularly was improved as no need to spend time to fetch water and eliminated a potential cause of dropping out.</td> </tr> </table>	Natural environment	The project launched sensitization and awareness campaigns on reforestation and environment and water management for host communities. In response, the community participated in planting trees and creating an even environment for settlement. (Noted, however, along with the population growth, those trees have been cutting down for the construction of shelters and use for cooking. In addition, scarcity of firewood has been identified.) .	Public safety	They recognized being protected against potential dangers of water-borne diseases. On this realization, the communities ensured water facilities were well protected which led to longer use of the water facilities.	Hygiene/sanitation	The availability of water ensured improved hand wash as well as proper use of sanitation at all levels of operation.	Primary education	The quality of education for children who had failed to go to school regularly was improved as no need to spend time to fetch water and eliminated a potential cause of dropping out.	<p>NWWDA's Responses to the survey questionnaire & Telephone interview</p> <p>Social assessment final report on Water and Sanitation Development Project for the refugee camps Host Community by Coast Water Services Board No. SF G3070 V2</p>
		Natural environment	The project launched sensitization and awareness campaigns on reforestation and environment and water management for host communities. In response, the community participated in planting trees and creating an even environment for settlement. (Noted, however, along with the population growth, those trees have been cutting down for the construction of shelters and use for cooking. In addition, scarcity of firewood has been identified.) .								
Public safety	They recognized being protected against potential dangers of water-borne diseases. On this realization, the communities ensured water facilities were well protected which led to longer use of the water facilities.										
Hygiene/sanitation	The availability of water ensured improved hand wash as well as proper use of sanitation at all levels of operation.										
Primary education	The quality of education for children who had failed to go to school regularly was improved as no need to spend time to fetch water and eliminated a potential cause of dropping out.										
<p>The knowledge and technique of the O&M of water supply facilities have been disseminated to host communities in Dadaab refugee camps.</p>	<p>(Ex-post Evaluation) not achieved</p> <p>It was not autonomously disseminated to other host communities in Dadaab refugee camps. Although the hands-on training was conducted to promote the O&M, the teaching ability for WUAs' members to demonstrate what was required to disseminate in the other sites was quite limited. As WUAs' members are oftentimes either illiterate or semi-illiterate, it was difficult for learners to comprehend the written materials provided by the project either.</p>										

3 Efficiency

Although the project period was as planned (ratio against the plan: 100%), the project cost slightly exceeded the plan (ratio against the plan: 108 %). The outputs were produced as planned. Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

The Constitution of Kenya 2010 came into effect in 2013, declared that access to safe water and sanitation services is a fundamental human right. To substantialize this, the Government of Kenya has upheld a set of policy documents: National Policy on Water Resources Management, National Water Development Policy, Northern Water Services – strategic plan, and Medium-Term Plan III. Under the policy direction, the Ministry of Water and Irrigation together with County Governments have been responsible for water-related policy development, multiple sector coordination, monitoring, supervision, and conservation of water resources. The policies have been valid since 2012 and further supplemented through the water act 2016. The County Government of Garissa has followed these policies to implement projects. The local Somali media transmission network has tried to raise awareness and outreach programmes to sustain water resources to be prepared for acute water shortage, especially during the dry season in the semi-arid County.

< Institutional/Organizational Aspect>

Under the new constitution stated above, key legislation that impacted the governing structure was notably, the County Government Act of 2012 and the Urban Areas and Cities Act of 2011, which have provided the devolution framework to implement the policies in general. However, staffing and manpower shortage has been a daunting challenge, especially at the county level. At that time, “the Northern Water Service Board” (and late reformed as NWWDA) delegated ongoing water programmes to the Garissa County Government including this very project. At the county level, an incumbent director has solely been responsible for running numerous water programmes in each area, and thus, there was not much of a hand but posted only one officer to oversee the Dadaab division. As the Garissa County Government, there has not been a sufficient number of officers vis-a-vis the required workload for the programmes in the County. They have been largely supported by Development Partners including assessment of the performance and maintenance of vested water facilities. At the time

of the ex-post evaluation, due to security reasons in the area, a water officer could merely visit once in two months.

<Technical Aspect>

As above, throughout the devolution process, NWWDA was mandated to cooperate with the Garissa County Government, especially on the implementation of National programmes. Staff members from the County Government were given opportunities to learn from trained engineers of NWWDA during project implementation. Although such interpersonal cooperation existed between NWWDA and the County Government, there was no future strategy or mechanism to collaborate further on an institutional basis, such as to build upon the experiences and share valuable hands-on experience and lessons learned. At the time of ex-post evaluation, no personnel was working at either NWWDA or the County Government due to retirement and/or transitions. The manuals provided by the project were no longer used directly by the communities. As community members are either illiterate or semi-illiterate, the level of understanding of the written document was inevitably limited, although personnel from NWWDA and County Government could refer to these manuals for training.

<Financial Aspect>

As an augmentation of water and sanitation services is a priority in the Garissa County Government, the budget has been continuously allocated to the sector according to biennial data confirmed since 2014. The water and irrigation services department has received a significant share of the county's public funding to disburse the construction of new water facilities. As for the budget for the maintenance of existing water facilities, however, it has been limited despite showing an increasing trend in the past years. To complement the shortfall to a degree, donors and humanitarian organizations working in Garissa County have provided funds to some communities for water programmes which include rehabilitation of existing water facilities, and the financial assistance will be continued in the foreseeable future.

<Evaluation Result>

In light of the above, Slight problems have been observed in terms of the Institutional/Organizational, technical aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project partially achieved the Project Purpose and the Overall Goal. Water accessibility being widely enhanced has positively affected the livelihood of the target communities. As for sustainability, with limited manpower, it has been a challenge for the implementing agency to disseminate the locally feasible way in dealing with the O&M of vested facilities, although the expansion of water supply and sanitation services has remained its priority in the County government. As for efficiency, the project cost exceeded the plan. Considering all of the above points, this project is evaluated to be partially satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

In order to ensure sustainability and to realize the full potential of the project in Garissa County, the issue of high illiteracy among host communities and WUAs members needs to be properly addressed in the County Government to design the approach most amenable to them for the sake of self-sustaining capacity building. For time being, water supply manuals by the project should be simplified with more graphics and translated into the local language for better and wider understanding. Going forward, it is imperative to request that all training materials should be easily understood and cogent irrespective of the literacy competence of the beneficiaries.

Lessons Learned for JICA:

The ex-post evaluation survey results show limited dissemination of the O&M of water facilities in other host communities due to the lack of technical/managerial knowledge in the County Government and NWWDA. In order to secure the sustainability of the project, staff members were required to acquire the necessary skill during the limited period of project implementation. As such, to further strengthen and retain the needed institutional capacity of the implementing agency for the O&M, an emphasis should be placed on the programme development of human resources as to how they can autonomously carry out on-the-job training (OJT) and subsequent refresher courses after the project completion. Given the prevailing high turnover rate through retirement and/or job-hopping, the local labor conditions, practices of a recipient country should be deliberately taken into consideration to set the scope of activities to strategize how to conduct training after project completion during the formulation of a technical cooperation project.



The ground site of the Hamey borehole



Hamey women fetching water from borehole supported by JICA