# Summary of Evaluation Result

<table>
<tr><td colspan="3">1. Outline of the Project</td></tr>
<tr><td colspan="2">Country: The Plurinational State of Bolivia</td><td>Project Title: Water is Health and Life “Phase 2”</td></tr>
<tr><td colspan="2">Issue/Sector: Water Resources and Disaster Management Group</td><td>Cooperation Scheme: Technical Cooperation Project</td></tr>
<tr><td colspan="2">Division in Charge: JICA Bolivia Office</td><td>Total Cost (at the time of evaluation): 257 million yen</td></tr>
<tr><td rowspan="3">Cooperation period</td><td rowspan="3">(R/D): From June 16, 2008 to December 31, 2011</td><td>Partner Country's Related Organizations: Ministry of Environment and Water Resources, 9 Departments</td></tr>
<tr><td>Supporting Organization in Japan:</td></tr>
<tr><td>Related Cooperation: Grant aid for “Regional Underground Water Development Plan” Phases 1-3, etc.</td></tr>
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1-1. Background of the Project

“The population with access to safe water” in Bolivia accounts for 71.5% against the national population (2005, the World Bank), failing to reach 78.5% which is the millennium development goal. Especially, the water supply rate in rural areas constituting 38% of the population is only 50.6% (2006, MDG progress report, the World Bank), which is causing spreads of water induced diseases as well as high infant mortality.

Reacting to such situation, Japan conducted a research in 1994 in order to develop a project plan for supplying water in rural areas, and, with three grant aids for the departments since 1998, procured equipment necessary for development of underground water, dug wells and constructed facilities in pilot villages. Using the equipment, the groundwater development project is underway in 6 departments out of Bolivia's 9 departments.

On the other hand, Bolivia took its own measures concerning establishment and maintenance of water supply facilities after digging wells that are managed by cities, which were however insufficient.

Therefore, in order to reinforce those measures, Bolivia implemented the technical cooperation project -- the “Water is Health and Life” project (2005-08) -- in the above-mentioned 6 departments through Japan's cooperation in order to support municipal activities to improve the capacity of the Water, Basic Sanitary and Housing Unit (UNASBVI) of each department, to incorporate and disseminate the productive rural development model to maintain water supply facilities, and to strengthen cooperation with water-related organizations, such as Vice Ministry of Basic Services, (MMAyA), etc.

As a result, establishment of water supply facilities was launched, and the establishment rate of water supply facilities in the relevant areas had reached up to 80% -- a system in which the facilities can be maintained by the Village Water Committee was also established.

However, the implementation of Phase 1 has confirmed that executing capacities vary among departments and the effective one has been Oruro and Santa Cruz Departments where the implementation of the project was relatively smooth to provide support to other departments.

Concerning the well digging technique, it is necessary to improve skills and knowledge -- such as physical survey and well logging -- further in the future, because it will be necessary to develop underground water in areas demanding higher technologies. It has also been confirmed that it is necessary to support the municipal water committees, research and develop local optimization skills and reinforce the Water Council at the departmental level in order to implement the project on a continuous basis.

The Bolivian government conducted a research for developing a 5-year plan for water supply project (2007-09) with Japan's cooperation in order to implement the rural water supply project also in Beni and Pando Departments municipally. A movement has been started to establish a relevant division also in Cochabamba Department where a division in charge of water supply project had never existed before.

Thus, the Bolivian government has requested the Japanese government to move on to the “Water is Health and Life Phase 2” in order to expand the target to all the 9 departments in Bolivia and solve issues confirmed by Phase 1.

Reacting to the request, the project was implemented from June 2008 to December 2011. (However, the R/D requires Bolivia to continue the project independently up to December 2013.)

1-2. Project Overview

It is intended to reinforce the project executing capability of the UNASBVI of each of the 9 departments, to strengthen the collaboration system among departments, cities and villages, and thereby to improve the capability to operate the rural water supply project in the 9 departments.

(1) Overall Goal

To contribute to improvement of the water supply rate and the health index in rural areas throughout the nation.

(2) Project Purpose

To improve the departments' capability to execute the rural water supply project on a continuous basis

(3) Outputs

1. Reinforcement of the organization of the cooperation bases among departments
2. Reinforcement of the training function
3. Reinforcement of the follow-up system for municipalities, communities and CAPyS
4. Reinforcement of the research function
5. Reinforcement of the organization of the Water Council

(4) Inputs (at the time of evaluation) (257 million yen in total)

(Japanese side)
Long-term expert: 1
Short-term experts: 5
Trainees accepted in Japan: 9
Equipment: Equivalent 195 million yen
Local costs: 76 million yen
Others:
(Bolivian side)
Allocated counterparts: 46
Provision of land and facilities: Office spaces, technical centers
Local costs: Bs. 133.84 million (*Estimate in FY2011)
Others:

2. Evaluation Mission

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|---|---|---|
| Members | (Division: Name, title)<br>(1)Leader: Hirofumi Matsuyama, Chief Representative, JICA Bolivia Office<br>(2)Water supply planning: Keiko Yamamoto, Senior Advisor, JICA<br>(3)Cooperation planning: Takashi Nishimura, Senior Representative, JICA Bolivia Office<br>(4)Evaluation analysis: Marcelo Endara, local consultant | |
| Period | August 21-28, 2011 | Type of Evaluation: Final Evaluation |

3. Summary of the Evaluation

3-1. Assessment of Achievements

(status measured by indicators)

The project goal of "improving the departments' capability to execute the rural water supply project on a continuous basis" has been generally achieved, while the levels vary among the 9 departments. Especially, Santa Cruz, Oruro, La Paz and Beni Departments have started producing digging equipment and promoted cooperation with the Bureau of Agriculture and Animal Husbandry of other departments. Therefore, the evaluation is that voluntary activities have been started and the skills have been greatly improved in those four departments.

The next best are the three departments of Chuquisaca, Potosi and Pando. While some of the indexes were left unreached, the overall evaluation of the achievement levels of other indexes and human resource development demonstrates that the capability has considerably improved.

Trijia satisfied the indexes as a whole department, but the contribution to the number of well digging cases was more from organizations other than the C/P, and the capability improvement of the C/P organization itself was not enough. As for Cochabamba, since the department's policy prioritized promotion of irrigation rather than rural water supply, the original plan of establishing a division in charge of rural water supply was not realized, and there was no specific participation in the project.

(Achievement levels of outputs)

Output 1: Reasonably achieved. The technical centers of Santa Cruz and Oruro Departments have secured the budget and are conducting activities aggressively. On the other hand, the project execution capacity as the cooperation workshop for among departments is not sufficient.

Output 2: Sufficiently achieved. The trainings were conducted as planned, and training materials were made.

Output 3: Reasonably achieved. In Cochabamba Department, municipal water committee was not established.

Output 4: Sufficiently achieved. Concerning development of new technologies, 13 technologies were studied (index was at least 6 technologies), out of which 10 technologies are currently being disseminated.

Output 5: Reasonably achieved. Water Council was established in 9 departments, and information is being exchanged by all departments excluding Chuquisaca, Pando and Potosi.

3-2. Summary of the Evaluation

(1) Relevance

Relevance is Extremely high.

Improvement of the water supply rate is mentioned as one of the goals in all of the National Development Plan (2006-2011), basic sanitation sector plan (2008-2015) and basic sanitation sector plan (amended) (2011-2015) under the current administration. Especially, improvement of the rural water supply rate is one of the priority issues and consistent with Bolivia's national policies.

Also in policies of departmental governments, it is prioritized in the 5-year plan and highly relevant in each of 8 departmental governments excluding Cochabamba. Concerning Cochabamba, the priority of rural water supply is low in the departmental government's policies. No specific activities are being conducted in the department because no executing system has been established.

The water supply project in highly poor rural areas is based on the fundamental policies of "human security", and is also consistent with the policies on the Japanese side.

The technical cooperation to enable water supply to villagers who are the end-users is highly relevant as part of the series of cooperation that Japan has prioritized since the 1990's which includes research on groundwater development followed by grant aids.

(2) Effectiveness

The project is highly effective, as activities necessary to achieve the goals were conducted and sufficient outputs were performed (achievement rate of 90% in average). Especially, "reinforcement of the capacity of technical center" has established a system in which other departments can supplement on the technical aspect in case the counterpart is transferred to somewhere else. It has contributed to achieve the project goal and, in some departments, secure further independence in development.

(3) Efficiency

Inputs from Japan were implemented generally as planned, but some of the originally planned inputs (short-term experts, training in a third country) became unnecessary, because a system to share transferred technology with Bolivia was established. The project also achieved outputs efficiently by combining with other projects by the Japanese government (volunteers, follow-up of grant aid, the embassy's Grass Root Grant Aid for Human Security, etc.). Taking the synergy effect from cooperation with other donors and NGOs into consideration, the efficiency is considered to be high.

(4) Impact

Concerning improvement of the rural water supply rate as in the priority goal of "contributing to improvement of the water supply rate and the health index in rural areas throughout the nation", it reached 68.64%, exceeding the index of 60.4%, upon termination of the project, although the Bolivian government has not made any official announcement as yet. The impact is considered to be sufficient.

On the other hand, concerning improvement of the health index, it is difficult to calculate the level of the project's contribution, but the results of interview survey with residents include the information that diseases such as diarrhea have decreased.

The community productive development model (DECOM-P) incorporated in the project not only produced the budget to maintain water supply facilities but also vitalized the community and its activities. The impact has been obvious.

(5) Sustainability

Policies and financial affairs: Rural water supply has always been and will continue to be a highly prioritized sector in Bolivia. The budget has been secured in national and departmental executing agencies.

Organization: In order to sustain the outputs of the project in an independent and developmental manner, the project established a system in which the "technical centers" founded in the 2 model departments provide support to executing agencies in other departments, which is believed to have secured sustainability. On the other hand, the municipal level in charge of establishing water supply facilities is still catching up. In order to strengthen municipalities, Municipal Water and Hygiene Synthetic Cooperation System Committee (CIMAS-SIS) has been incorporated, which is expected to improve the capability.

Technical aspect: The project aims at technical development that can be adapted to regions in Bolivia with different natural environments. It is highly expected that the developed "local optimization technology" will be established.

3-3. Factors behind Effectiveness

(1) Planning

Water is important not only for drinking but also in different ways from the aspects of rural life such as hygiene and agriculture. Therefore the project aimed at development of local water supply, but not limited to cooperation in the water sector, it also incorporated productive activities with productive and social natures in rural villages such as DESCOM-P, which is believed to have achieved outputs at the level of end-users.

Because of the capability development executed in all 9 departments as well as the establishment of technical centers in the 2 departments that have history of activities, a system has been established in which the capacity can be recovered through another department's technical center even if the capacity is temporally lost by a transfer of a counterpart which occurs frequently in Bolivia. It greatly contributed to the effectiveness.

(2) Process

The project also had exchanged information with other donors and NGOs active in the rural water supply sector and sharing the goal of improvement of the rural water supply rate, and always working in close cooperation, which greatly contributed to effectiveness.

3-4. Causes of Problems

(1) Planning

The project covered all 9 departments as requested by the Bolivian government, but Cochabamba Department did not fully participate in the project, because the policy of the department prioritized irrigation promotion more than rural water supply. In reaction, the project accepted a representative from Cochabamba Department in departmental coordinator meetings, etc. to share information and prepare for policy changes of departmental governments.

In Tarija Department, activities stagnated because the allocation of budget and counterparts was insufficient and equipment provided by the Grant aid broke down (repaired by the department later on).

In 2009, the departmental budget was reduced (thrift ordinance) as well as the project budget, but there was no significant impact because the minimum budget necessary for project activities was secured.

(2) Process

There was a case in which technology transferred to each department flew out and the capability declined because of transfers of counterparts. However, as described in 3-3(1), the impact of the counterpart transfer could be minimized because a system of supporting each other had been established through the training system among departments based on the technical centers in the 2 departments and the strengthened cooperation among departments.

3-5. Conclusion

The project activities smoothly progressed, and the expected outcomes were achieved although the levels vary among departments. As mentioned in 3-2, the evaluation of 5 items is "excellent" respectively and the project goal can be considered to be achieved. Therefore, the inputs from the Japanese side will be terminated.

3-6. Recommendations (specific ideas)

The period of support from the Japanese side for the project will be terminated as of December 31, 2011. However, as stipulated in the R/D, the Bolivian side will continue the project through December 31,

2013 as its own project. Advice for Bolivia is as follows.

①Continue the coordinator meeting that was organized during the project in order to communicate among project coordinators of different departments.

②Promote CIMA

S-SIS in all departments under the leadership of the Ministry of Environment and Water Resources in order to support municipalities and strengthen the guidance to municipal water committees as well as the capability of data collection.

③Strengthen the system in the water supply sector in Cochabamba Department which did not participate in the project for the reason of its departmental policy.

④Promote coordination between the national government and the departmental governments in order to dig deeper wells.

⑤All departments shall make efforts in order to develop human resources to be engaged in the project as well as the mechanism to secure the independent budget.

⑥For Beni and Pando Departments that do not have digging equipment yet, the technical centers shall provide trainings and support after they acquire the equipment.

⑦It is advised that the top of the departmental governments of Oruro and Santa Cruz which have technical centers regard the technical centers as organizations for horizontal cooperation and provide support to other departments through those centers. Update resources so that the centers can function as such.

⑧Incorporate activities with academic institutions such as universities in the project in order to research on appropriate technology, etc.

3-7. Lessons Learned

①Rural water supply involves diverse areas of support such as establishment of departmental policies on development, well digging by each department, establishment of water supply facilities which is under responsibility of cities and measures to appropriate a budget for operation of water supply facilities. Therefore, as shown in this project, it was effective to combine multiple support schemes such as development and research, grant aids and technical cooperation.

②It has been confirmed that it is effective for development of local water supply to develop productive activities not only in the water sector but also from the aspects of production, society and locally optimized technology.

③It has been confirmed that it is important to cooperate with other donors and NGOs in order to improve the effectiveness of the project, because, as pointed out in ①, the rural water supply sector involves diverse support areas and wide target areas.

④In case allocation of human resources is not stable as happened in Bolivia, a training system covering all departments enables enhancing the quality of technicians to a certain extent.

⑤It is important to take measures to develop local water supply, taking local characteristics fully into consideration.

⑥It was enabled to collaborate with administrative organizations at different levels (departmental governments, cities, communities) within the short period of the project, because the rural water supply sector was a priority issues shared by all levels and a system to link those different levels of administration (CIMAS-SIS) was incorporated. It has also been confirmed that such collaboration can produce many outputs in a short period.

3-8. Follow-Ups

After the project is terminated, external expert coordinators will be allocated in the Ministry of Environment and Water Resources for 3 months (January - March 2012) to monitor the situation of the project and support coordination among departments so that the project can be transferred smoothly to Bolivia's own activities.