

JBIC ODA Loan Projects: Mid-Term Review

Time of Mid-Term Review Field Survey: May 2005

Project Title: Kingdom of Morocco "Rural Water Supply Project II" (L/A No. MR - P15)

[Loan Outline]

Loan Amount/Contract Approved Amount/Disbursed Amount: 2,462 million yen/941 million yen/553 million yen (as of May 2006)

Loan Agreement: Agreement entered June 2000 (sixth year after L/A)

Final Disbursement Date: January 2008

Executing Agency: Ministère de l'Aménagement du Territoire, de l'Eau et de l'Environnement (Ministry of Territory Development, Water and Environment)

[Project Objective]

This project aims to improve water supply facilities in rural villages in four central Morocco provinces (Azilal, Beni Mellal, Khenifra, and Khouribga provinces) to provide people with safe water, thereby improve their living standards.

Consultants: Nippon Koei · SCET-MAROC · CID (JV) (Japan./Morocco./Morocco)

Contractors: Domestic Moroccan small & medium companies (many)

Item	Results of ex-ante evaluation	Ex-post evaluation results as estimated at time of mid-term review																																			
[Relevance]																																					
(1) National policy level	(1) In response to increasing water demand, water sector development was set as one of the main policies in the Five-Year National Development Plan (2000-2004). The government had committed itself to improve water supply rates in urban and rural areas.	(1) The government has not formulated a new five-year long-term development plan since the completion of the Five-Year National Development Plan (2000-2004). Instead, the government for the time being formulates tentative development policies in each year's fiscal law. The 2005 fiscal law raises goals such as increasing people's access to basic services and correcting regional disparities through rural development. In addition, improvement in access to basic social services, including water, is stipulated in the "National Human Development Initiative (INDH)" announced in May 2005 by King Mohammed VI.																																			
(2) Policy level	(2) The Program of Potable Water Supply to Rural Population (PAGER) was formulated in 1996 to promote development of the water sector (potable water) in rural areas, where water supply rates are low compared to urban areas. It aimed to raise the rate of access to potable water in rural areas from 32% in 1997 to 80% in 2010 by providing water to 1.1 million people in 31,000 villages nationally by the target year 2010.	(2) Later, the implementation schedule for the Program of Potable Water Supply to Rural Population (PAGER) was accelerated over the initial plan. In 2002, the target year was pushed forward from 2010 to 2007. Accordingly, the new goal was set to provide water to 12.30 million people in 23,500 villages nationally by 2007, and increase the potable water access rate to 91%. Meanwhile, water has been provided to about 10 million people in about 17,000 villages as of the end of June 2006, achieving a 73.5% rate of access to potable water. PAGER continues to be effective.																																			
(3) Planning level	(3) This project aimed to improve water supply facilities in about 200 rural villages in the four central Moroccan provinces of Azilal, Beni Mellal, Khenifra, and Khouribga to ensure a safe water supply for people living in these areas; therefore it had high priority. Further, the Rural Water Supply Project I (an yen loan project) was planned alongside this project, with Office National de l'Eau Potable [National Office for Potable Water] (ONEP) as the executing agency. Rural Water Supply Project I targets the three provinces of Fes, Safi, and Tiznit, with a plan to carry out the installation of distribution pipes branching off from the existing main water delivery pipes, mainly in mid-size urban areas. This Rural Water Supply Project (II) was to focus on rural area improvements of water distribution facilities, including water source development such as wells.	(3) As serious droughts often arise in Morocco, ensuring potable water and other water supplies is a priority issue. Rural villages have low water access rates in comparison to urban areas, and therefore improving water supply facilities in rural villages continue to be important.																																			
[Effectiveness]																																					
	<p>(1) Operation and Effect Indicators</p> <p>Quantitative effects</p> <p>1) Rate of access to potable water in rural regions: 14% (1990) → 80% (2010)</p> <p>2) Number of beneficiary villages and population (Villages: 196. Population: 188,173 people)</p> <p>* Based on various conditions such as project urgency and maturity, it was planned to divide the project target villages into two groups, and the project was to be implemented in two phases.</p> <p>Changes From 2002 Reappraisal</p> <p>Number of beneficiary villages: 200 villages (150,000 people): villages covered by programs that would be planned annually from 2003 through 2006.</p> <p>* The necessity arose to review the project scope due to the effects of the drought which arose in Morocco in the eight-month period from the pledge in March 1999 until the L/A was concluded. In response to the situation, JBIC reappraised this project in 2002. As a result, the project scope changed to implement annual programs over four years, with 200 target villages (150,000 people).</p>	<p>(1) Operation and Effect Indicators</p> <p>Quantitative effects (actual performance)</p> <p>1) For each province: total water access rate (Goal: 91% access rate by 2007)</p> <table border="1"> <thead> <tr> <th>Province</th> <th>2000</th> <th>2001</th> <th>2002</th> <th>2003</th> <th>2004</th> <th>2005</th> </tr> </thead> <tbody> <tr> <td>Azilal</td> <td>45%</td> <td>50%</td> <td>55%</td> <td>58%</td> <td>61%</td> <td>65%</td> </tr> <tr> <td>Khouribga</td> <td>46%</td> <td>51%</td> <td>53%</td> <td>64%</td> <td>67%</td> <td>76%</td> </tr> <tr> <td>Beni Mellal</td> <td>60%</td> <td>65%</td> <td>70%</td> <td>75%</td> <td>80%</td> <td>81%</td> </tr> <tr> <td>Khenifra</td> <td>38%</td> <td>40%</td> <td>42%</td> <td>64%</td> <td>67%</td> <td>76%</td> </tr> </tbody> </table> <p>* The initial PAGER goal was to raise the access rate to the potable water in rural villages to 80% by 2010, but the King made a recommendation in 2002 that the goal be pushed forward; therefore a new goal was set to achieve a 91% access rate by 2007.</p> <p>During the five-year period from 2000-2005, the water supply access rate in each province improved greatly, raised by: 20% in Azilal province, 30% in Khouribga province, 21% in Beni Mellal province, and 38% in Khenifra province. However, this is not only due to contributions by this project; it also includes all the outcomes from rural water supply projects implemented under PAGER by the Moroccan government and other donors such as KfW.</p>	Province	2000	2001	2002	2003	2004	2005	Azilal	45%	50%	55%	58%	61%	65%	Khouribga	46%	51%	53%	64%	67%	76%	Beni Mellal	60%	65%	70%	75%	80%	81%	Khenifra	38%	40%	42%	64%	67%	76%
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Qualitative Effects

- a) Reduction of water drawing labor
- b) Decrease in water related diseases

2) Beneficiary villages and population (number of villages and population for which access to water supply facilities became possible through this project)

Province	Number of beneficiary villages (douar)	Beneficiary population	Water supply service status		
			Water supply service now operating	Water supply service not yet operating (construction almost completed)	Construction work in progress
Azilal	45	37,922	22	6	17
Khouribga	19	7,681	9	0	10
Beni Mellal	24	21,752	8	10	6
Khenifra	18	8,617	2	11	5
Total	106	75,972	41 (39%)	27 (25%)	38 (36%)

(Note) The target villages and population for the 2003-2005 program (as of May 2006).

* Goal achievement rates are: 1) Number of beneficiary villages: 54% (The initial plan targeted 196 beneficiary villages, out of which a figure of 106 has been achieved); 2) Beneficiary population: 40% (The initial plan targeted 188,173 people, out of which a figure of 75,972 has been achieved).

* A douar indicates a village made up of multiple families and households which have family and tribal relationships. The population and area of one douar differs by region, and several douar usually gather to form one commune (equivalence to municipalities in Japan).

3) Beneficiary Village Water Cooperatives: Percent Organized

Province	Number of beneficiary villages (douar)	Beneficiary population	Water Cooperatives Number & percent organized		
			Active	Organizing	Not yet organized (Preparing)
Azilal	45	37,922	42	0	3
Khouribga	19	7,681	14	4	1
Beni Mellal	24	21,752	21	0	3
Khenifra	18	8,617	14	3	1
Total	106	75,972	91 (85.9%)	7 (6.6%)	8 (7.5%)

(Note) The target villages and population for the 2003-2005 program (as of May 2006).

* As a result of implementation of programs in the three years from 2003 to 2005, small-scale water supply facilities were improved for 75,972 people in 106 villages (douar). Water cooperatives are organized in 91 out of the 106 villages (86%) under this project. In 78 villages (74%), maintenance and management of water supply facility, as well as water fee collection are being performed by local residents. The FY2006 program is now being formulated.

(2) Factors which may influence the effectiveness and impact

1) Water Cooperatives

This project provides water cooperatives with guidance and support for operation and management methods for water supply facilities, and water fee collection. However, it is difficult to provide sufficient support with the executing organization of two instruction teams for four provinces. Currently, two instruction teams, each team being comprised of three people, are providing support for water cooperatives in 106 villages in four provinces. For programs that are to be implemented after 2006 too, they have to carry out instruction activities, plus organize and support water cooperatives in new target villages. In addition, training is planned to be provided in the areas of organizational management, accounting, operation, maintenance, and management of facilities, and sanitary hygiene to strengthen the organizational capacity of existing water cooperatives. With the present structure of a limited number of people regularly visiting the geographically dispersed target villages via inconvenient transport, there are limits to carrying out effective training activities. Although a staff increase is planned for the instruction teams, it is requested that the team-unit executing organization be strengthened in order to respond to the expected increase in the number of target villages in the years to come.

		<p>2) Disbursement delays Disbursement progress is 22% as of May 2006, delayed for the following reasons.</p> <ul style="list-style-type: none"> • A time gap arose between the period of annual program implementation and that of the contract approval (It was November 2004 when the approval was reached for the contract for 2003 program; March 2005 for 2004 program; and March and June of 2006 for 2006 program) due to the fact that it had taken longer time than expected to complete water source survey conducted by local bureaus in advance for the formulation of programs. Delay in purchasing arrangements also caused disbursement delay. • Large amounts of time are required to prepare documents for payments to contractors (with some exceptions, payment is generally processed at the local level). Internal procedures within Morocco government (Local governments →Ministry of Territory Development, Water and Environment →Budget Direction of the Ministry of Finance and Privatization) to prepare disbursement requests to JBIC also took a tremendous time. <p>(3) Factors which may influence the sustainability After project completion, each village water cooperative bears responsibility for operation, maintenance, and management of water supply facilities. The current status of operation, maintenance and management of facilities is generally good, with no special problems arising. On the other hand, there are large differences between villages in geographic and economic environment, literacy rate, culture and traditions, and the degree of women's social participation. Accordingly, the operation, maintenance, and management capabilities of each water cooperative also differ. The culture of cooperatives is a new concept for target villages, and requires time for people to understand and incorporate such concept into village activities. To reliably ensure a long-term maintenance and management system, support is continued to be necessary to strengthen water cooperative capacity.</p>
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Information for reference

<p>[Efficiency] (1) Outputs</p>	<p>(1) Outputs Perform the following in 196 villages (douar), in the provinces of Azilal, Beni Mellal, Khenifra, and Khouribga.</p> <table border="0"> <tr> <td>a) New construction and repairs of wells and shared faucets</td> <td>Wells: 1,169 locations Tube wells: 79 locations</td> </tr> <tr> <td>b) Construction of water distribution facilities (reservoirs, pipelines, etc.)</td> <td>351 locations</td> </tr> <tr> <td>c) Procure and install pump equipment</td> <td>1,213 locations</td> </tr> <tr> <td>d) Consulting services</td> <td>48 M/M</td> </tr> </table> <p>Changes From 2002 Reappraisal The initial plan was: (1) Conduct above activities over two phases in approximately 200 villages selected based on the result of the SAPROF survey; (2) The Moroccan side bears the cost for implementing the water source survey; (3) The water supply type is a shared faucet from one water source in each village (mainly shallow wells). Instead, the 2002 reappraisal changes included: (1) Divide into four one-year phases to conduct above activities from 2003 to 2006 in villages deemed to have sufficient water sources and selected as such from villages that the executing agency had conducted water source survey for the programs planned each year; (2) The water source survey is included in ODA loan project; (3) Supply water to single or multiple villages from a central water source (mainly deep wells) through the shared faucet (stand pipe) or individual connection.</p>	a) New construction and repairs of wells and shared faucets	Wells: 1,169 locations Tube wells: 79 locations	b) Construction of water distribution facilities (reservoirs, pipelines, etc.)	351 locations	c) Procure and install pump equipment	1,213 locations	d) Consulting services	48 M/M	<p>(1) Outputs The four target provinces are unchanged. Implemented as planned in each fiscal year's program, since FY2003.</p> <table border="0"> <tr> <td>a) New construction and repairs of wells and shared faucets</td> <td>Shallow wells: 42 locations Deep wells: 39 locations</td> </tr> <tr> <td>b) Construction of water distribution facilities (reservoirs, pipelines, etc.)</td> <td>108 locations</td> </tr> <tr> <td>c) Procure and install pump equipment</td> <td>94 locations</td> </tr> <tr> <td>d) Consulting services</td> <td>Same as on left</td> </tr> <tr> <td colspan="2">(Additional scope)</td> </tr> <tr> <td>e) Water source survey</td> <td>96 locations</td> </tr> </table> <p>Specific component quantities are set when each year's annual program is formulated after village selection, except for item d). This point needs to be considered when ascertaining outputs for ex-post valuation.</p>	a) New construction and repairs of wells and shared faucets	Shallow wells: 42 locations Deep wells: 39 locations	b) Construction of water distribution facilities (reservoirs, pipelines, etc.)	108 locations	c) Procure and install pump equipment	94 locations	d) Consulting services	Same as on left	(Additional scope)		e) Water source survey	96 locations
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(2) Project period	<p>(2) June 2000-September 2006 (76 months)</p> <p>Changes made by 2002 Reappraisal June 2000-March 2007 (82 months)</p> <p>The planned periods for each annual program are as follows.</p> <ul style="list-style-type: none"> - 2003 program: April 2003-March 2004 - 2004 program: April 2004-March 2005 - 2005 program: April 2005-March 2006 - 2006 program: April 2006-March 2007 	<p>(2) June 2000-March 2007 (82 months)</p> <p>The start and completion dates of each annual program are as follows.</p> <ul style="list-style-type: none"> - 2003 program: July 2003-March 2004 - 2004 program: April 2004-March 2005 - 2005 program: April 2005-March 2006 - 2006 program: April 2006-Currently implementing * <p>* Although the 2002 reappraisal planned programs for four years from 2003 to 2006, the executing agency made request for the 2007 program to be covered as well. It is therefore expected that the executing agency will submit such requests to JBIC.</p> <p>(Reasons for extension)</p> <ul style="list-style-type: none"> • During the eight months from the pledge in March 1999 to the L/A conclusion, the drought damage in Morocco became severe. As part of urgent countermeasures, the construction of water supply facilities in over 30% of the initial target villages were implemented with Moroccan government funds. On the other hand, the drought reduced the water volume and quality in some of the remaining villages, making it difficult for them to ensure sufficient water sources. This made it difficult to carry out the initial implementation plan which was divided into two phases, with simultaneous procurement and construction for 200 village projects in four provinces. Therefore, the method was changed to implement individual annual programs, selecting target villages that are deemed to have sufficient water sources based on the water source survey. • In 2003, the Moroccan government reexamined project jurisdiction along with its organizational reform. This project's executing agency, the General Directorate of Hydraulic, was accordingly transferred from the Ministry of Equipment to the Ministry of Territory Development, Water and Environment. At the same time, the role of the General Directorate of Hydraulic became focused on dam-related projects, and the implementation of Rural Water Supply Project was basically taken over by National Office for Portable Water (ONEP). With the loan agreement reached prior to the organizational change, discussions took place over a long period regarding whether the Ministry of Territory Development, Water and Environment, or the ONEP should be in charge of executing this project. This resulted in a delay of the project launch, even after the 2002 reappraisal.
Lessons Learned and Recommendations	<p>Lessons learned</p> <ul style="list-style-type: none"> • It was an appropriate decision to review the project plan in the 2002 reappraisal in accordance with the status at that time, while firmly maintaining the initial project goals, in response to the fundamental change in the prerequisite conditions for this project caused by the drought which arose during and after the appraisal. <p>Recommendations</p> <ul style="list-style-type: none"> • JBIC is currently proposing to the executing agency that consulting services be strengthened to reinforce the project implementation structure. The executing agency accepted this proposal, and is planning to increase instruction team members in FY2006. It is important that the executing agency carry out this plan without fail. • From a project sustainability viewpoint, it is important to continue strengthening the capacity of water cooperatives. JBIC will need to continue its monitoring on the implementation status of activities to strengthen the capacity of water cooperatives, including training for water cooperatives planned from FY2006. 	
Indicators set for the ex-post evaluation	N/A	<p>(Operation indicators)</p> <ul style="list-style-type: none"> • Beneficiary villages and beneficiary population (each province) • Organization rate of water cooperatives in beneficiary village <p>(Effect indicators)</p> <ul style="list-style-type: none"> • Access rate to potable water (each province) • Hygiene indicators such as water-related diseases prevalence rates (each province)