PPP in the water and sanitation sector

Session VII: Tapping the potential of small scale private water operators

An Output Based Aid (OBA) PPP to develop sustainable access to water supply service in rural areas in Morocco.

Background, approaches and achievements in Jorf el Melha - An OBA Pilot

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ONEE's Water Department “Branche Eau”

Office National of Electricity and Potable Water is a national public utility in charge of bulk water supply, distribution in urban and rural areas and a sanitation service.

1. Securing, reinforcing and making the water supply (WS) more viable in urban areas.
2. Extending access to water supply in rural areas.
3. Handling wastewater collection and treatment in urban areas.

| Key Figures                        | PRODUCTION              | 1,100 MILLIONS M3
|                                   | (>80% of the national production) |
|                                   | TURNOVER                 | 300 MILLIONS EURO |
|                                   | ACCESS RATES             | URBAN: 100 %
|                                   |                          | RURAL: 94% (by the end of 2013) |
| CUSTOMERS                         | DRINKING WATER           | 1,6 millions (624 communities) |
|                                   | SANITATION               | 740,000 (87 communities) |
| STAFF                             |                          | About 7500 |
Specificities of rural Morocco

• 13.5 million inhabitants / 44% of the Moroccan population;

• Up to 1,300 Communities (communes/ villages) and about 32,000 rural localities

• Service delivery challenges:
  • 1995 : 14% access rate
    Launch of a Rural water supply access rate improvement program (Government and ONEP)

  • 2004 : 61% access rate
    Program management transferred to ONEP

  • 2013 : 94% access rate.

  • Invest : ~ 1,3 Billion US dollar (2001-2013)

• What does rural Morocco look like?
Example of grouped houses
Example of spread houses
ONEE's Strategy with regards to rural areas

To make RWS (Rural Water Supply) more viable and to optimize operating costs, ONEE has resorted to outsourcing strategies:

1. Phase 1 (since 1987) : standpipes (SPs) caretakers "Gardiens Gérants" (GG) with +8500 GGs by the end of 2013 in benefit of + 3,3 Millions inhabitants.

2. Phase 2 (since 1996) : the program creation of very small local companies “micro-entreprises“ to maintain the networks, install meters, manage pumping stations, etc. +835 contracts signed by the end of 2013.
To make RWS (Rural Water Supply) more viable and to optimize operating costs, ONEE has resorted to outsourcing strategies:

1. Phase 1: "Gardiens Gérants" (GG)

2. Phase 2: “micro-entreprises “

3. Phase 3: a promising approach: outsourcing through PPPs:
   
   1) without transferring the commercial risk: Pilot project (2003), 8 projects (for 5 years) in progress (between 2009 and 2014), and 2 about to be launched.

   2) with a transfer of the commercial risk: one pilot project currently under implementation in Jorf El Melha (2011-2021).

   3) By delegating the management under an “affermage”-type contract: 3 projects (launch under preparation).
Example of a PPP using Output-Based Aid (OBA) approach

Jorf El Melha Pilot project
KEY DATA OF THE PROJECT AREA

- Total area: ~1,200 km².
- 10 communes: five provincial capitals (Chefs-lieux) and 216 Douars of which 194 are already connected to the service.
- Population: ~141,000 inhabitants, representing more than 23,000 households.
TYPE OF FACILITIES

- **Production:**
  - 11 boreholes and wells.
  - 37 pumping stations.
  - 23 metering pumps and 2 chlorinators.
  - 69 km of water mains.

- **Distribution:**
  - 500 km of water distribution mains.
  - 17 tanks and tarpaulins with a combined capacity of 4,095 m3.
  - 259 standpipes
  - Only 8000 connected to water supply
Purpose of the PPP Jorf El Melha

1) **Ensuring service management** in accordance with applicable quality and performance standards.

2) **Optimizing management costs** by benefitting from the advantages offered by the private sector management while developing a technically and financially more efficient management.

3) **Develop the service** through a proactive commercial approach to:

   1) Expand access to **22 communities** that are yet to be connected to the ONEE network;

   2) Expand House Connection Service in Douars already equipped with a connection (going from 2% to 50% connected households).
## Sharing of the roles and responsibilities

<table>
<thead>
<tr>
<th>ONEE</th>
<th>OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Land facilities and equipment included in the contract</td>
<td>1) Production and Distribution of water in compliance with the standards of service;</td>
</tr>
<tr>
<td>2) Ensure the availability of water resources (80%).</td>
<td>2) Routine and preventive maintenance of facilities;</td>
</tr>
<tr>
<td>3) Water supply at the point of delivery of bulk water (10%);</td>
<td>3) Renewal of some facilities: pumps, commercial networks, and partially the primary and secondary.</td>
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<tr>
<td>4) Renewal heavy installations: storage, water supply systems, and transmission mains</td>
<td>4) Service development: extensions and new connections,</td>
</tr>
<tr>
<td>5) Providing model documents (policy contract, invoices, ...).</td>
<td>5) Commercial management of clients (subscription management, billing and collection ...)</td>
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<td>6) Made available to the subcontractor of a stock of billing meters.</td>
<td>6) Processing of claims from clients;</td>
</tr>
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<td>7) Controlling the activities of the operator</td>
<td>7) Payment of amounts owed to ONEE.</td>
</tr>
</tbody>
</table>
Key elements of the PPP

- Restricted domestic tendering with competition on the amount of the OBA sought -> Upstream support through technical assistance (AT) + workshops (both with WB support)

- 10-year contract initiated in July 2011.

- Operator’s remuneration: two main sources
  1. Water sales and connection costs for new customers for the entire duration of the contract
  2. Performance-based subsidies granted by ONEE according to an Output-Based Aid (OBA) approach

- A subsidy sized to achieve breakeven over 5 years
OBA Approach (introduced in the tender)

Principle:

1. The private operator prefinances pre-agreed "outputs" or results.

2. ONEE grants OBA subsidies after the "outputs" are realized and independently verified.

Three kinds of OBA subsidies granted to offset the difficulties faced in rural areas:

1. A subsidy per cubic meter (m³): charged in the entire water service area.

2. A subsidy for new connections: this targets both the rural population and the poorest living in the Douars served.

3. A subsidy sized to the distance of pipelines laid: this encourages service extension in underserved Douars.
1. Subsidy per m³ of water effectively charged

- Contract targets: Minimizing deficits;
- Output: Water sales;
- Unit of measure: Cubic meter of water billed;
- Performance targets: 1.7 million m³ charged / year
- Duration of the subsidy: First 3 years of operation
2. Subsidy to pipelines laid

- Contract targets: Service extension: from 7,500 to 14,000 users
- Output: New Douars served with water supply service
- Unit of measure: Linear Meter (LM) of network extension
- Performance targets: Approx. 50,000 LMs
- Duration of the subsidy: First 4 years of operation

### System arrangements

<table>
<thead>
<tr>
<th>Diameter (DN)</th>
<th>100 m</th>
<th>150 m</th>
<th>200 m</th>
<th>250 m</th>
<th>300 m</th>
</tr>
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<tbody>
<tr>
<td>DN 50</td>
<td></td>
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<td>DN 63</td>
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<td>DN 75 - 100</td>
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<td>DN 110 - 130</td>
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<td>DN 130 - 170</td>
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<td>DN &gt; 170</td>
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*Works carried out by 3rd party (*)
No subsidy
ONEP subsidy
3. Subsidy to new connections made

- Contract targets: Increasing the number of customers;
- Output: Operational house connections;
- Unit of measure: House connection (HC);
- Performance targets: 5,500 new HCs
- Duration of the subsidy: First 5 years of operation

Forecast

Target: Number of new connections

<table>
<thead>
<tr>
<th>New connections</th>
<th>An1</th>
<th>An2</th>
<th>An3</th>
<th>An4</th>
<th>An5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years with subsidy per m3</td>
<td>800</td>
<td>1200</td>
<td>1000</td>
<td>1400</td>
<td>1200</td>
</tr>
</tbody>
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Achievements after 3 years (2011–2014)

- Connections: +40% (from 7,500 to 10,800 households)
- Extension: +21,500 LM following surveys + studies.
- Water sales: +15% (from 1.167 Mm³ to 1,343 Mm³)
- Reduction of water losses: -10%
- Remuneration:
  - Based on collected revenue (m³ and new HCs): 22 MMAD (about EUR 2 million)
  - Subsidies (m³, new HCs): 12 MMAD (~60% of forecasts) (about EUR 1.1 million)
An approach being replicated

- Promising approach to ONEE’s management in rural areas: 23 similar operations scheduled for the 2014-2017 period
- Rural areas, a major challenge and a substantial market (13 million inhabitants, EUR 80 million for the sole water sales)
- A market perceived as unattractive to the private sector.
- The new approach promoted by ONEE is designed to make it attractive by adopting a win-win arrangement:
  1. New distribution of responsibilities (vis-à-vis customers and local communities) and risks (in particular investment risks).
  2. Subsidies encouraging the development of the service and supporting financial viability.
  3. An empowering approach (OBA)
Thank you for your attention

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Bouregreg treatment plant (9 m³/s) ONEP Central headquarters in RABAT