PE Optimization of Lima Water and Sewerage Systems (P117293)

LATIN AMERICA AND CARIBBEAN | Peru | Water Global Practice |
IBRD/IDA | Specific Investment Loan | FY 2011 | Seq No: 11 | ARCHIVED on 03-Apr-2017 | ISR27238 |

Implementing Agencies:

Key Dates

**Key Project Dates**

- Bank Approval Date: 07-Apr-2011
- Effectiveness Date: 07-Dec-2011
- Planned Mid Term Review Date: 20-Jan-2015
- Actual Mid-Term Review Date: 13-Jan-2015
- Original Closing Date: 31-Oct-2016
- Revised Closing Date: 31-Dec-2019

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The proposed development objective of this project is to improve efficiency, continuity and reliability of water supply and sanitation services in the Northern Area of Lima.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1.</td>
<td>Rehabilitation of water and sewerage networks in Northern Service Area of Lima</td>
<td>$51.30 M</td>
</tr>
<tr>
<td>Component 2.</td>
<td>Improving SEDAPAL's Efficiency</td>
<td>$1.88 M</td>
</tr>
<tr>
<td>Component 3.</td>
<td>SEDAPAL Project Management</td>
<td>$1.32 M</td>
</tr>
</tbody>
</table>

Overall Ratings

<table>
<thead>
<tr>
<th>Name</th>
<th>Previous Rating</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress towards achievement of PDO</td>
<td>Moderately Satisfactory</td>
<td>Moderately Satisfactory</td>
</tr>
<tr>
<td>Overall Implementation Progress (IP)</td>
<td>Moderately Satisfactory</td>
<td>Moderately Unsatisfactory</td>
</tr>
<tr>
<td>Overall Risk Rating</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Implementation Status and Key Decisions
The Loan Agreement for the Additional Financing (Lima Norte II) became effective on June 27, 2016. The parent project - Lima Norte I was extended by 22 months until August 30, 2018 to allow for completion of the consultancy activities.

The bidding process for civil works contract for areas in Lima Norte 2 has been re-launched and the window of submission of offers is open until March 30, 2017.

The works financed under Component 1 (First Loan) were completed and commissioned as of April 2015 and are operational. With the exception of few localities that were added to original project scope, all sectors now have 24 hour service continuity and high level of metered connections. Consultancies are progressing well. (i) SCADA has evolved successfully after some delays; (ii) a ToR for improving communication aspects at SEDAPAL has been developed; (iii) a proposed commercial system has been discussed with SEDAPAL’s Board; (iv) a participatory approach to improve SEDAPAL’s organizational structure is ongoing; (v) a consultancy selection process for the demand management study is ongoing; and (vi) SEDAPAL is also in the process of launching contracting of consultancy for social intervention and communications strategies.
## Risks

### Systematic Operations Risk-rating Tool

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Rating at Approval</th>
<th>Previous Rating</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political and Governance</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Macroeconomic</td>
<td>--</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Sector Strategies and Policies</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Technical Design of Project or Program</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Institutional Capacity for Implementation and Sustainability</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Fiduciary</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Environment and Social</td>
<td>--</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>--</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td></td>
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</tr>
<tr>
<td>Overall</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

## Results

### Project Development Objective Indicators

**Number of daily hours water services are provided in the project area. (Hours, Custom)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td>16.09</td>
<td>19.20</td>
<td>19.20</td>
<td>24.00</td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

**Annual incidence of water pipe breakages per km of water supply network in the project area. (Number, Custom)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td>0.21</td>
<td>0.16</td>
<td>0.16</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Date</strong></td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>
### Annual incidence of sewerage blockages per km of sewerage network in the project area. (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>8.75</td>
<td>3.52</td>
<td>3.52</td>
<td>2.34</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

### Percentage reduction in Non Revenue Water (% of volume invoiced/volume distributed) (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>40.00</td>
<td>35.00</td>
<td>35.00</td>
<td>25.00</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

### Direct project beneficiaries (Number, Core)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
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<td>150,000.00</td>
<td>150,000.00</td>
<td>438,000.00</td>
</tr>
<tr>
<td>Date</td>
<td>01-Jun-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2017</td>
</tr>
</tbody>
</table>

### Female beneficiaries (Percentage, Core Supplement)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>60,960.00</td>
<td>60,960.00</td>
<td>222,504.00</td>
</tr>
</tbody>
</table>

**Overall Comments**

**Intermediate Results Indicators**
### Piped household water connections that are benefiting from rehabilitation works undertaken by the project (Number, Core)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>35,000.00</td>
<td>35,000.00</td>
<td>69,444.00</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

### Number of water utilities that the project is supporting (Number, Core)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

### Number of stakeholders (men and women) reached with information on rational water use, including information on water saving equipment (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>5,000.00</td>
<td>5,000.00</td>
<td>45,000.00</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

### Action plan completed for the integration of GIS and SCADA systems. (Yes/No, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>
### Evaluation of current and future demand for water and sanitation services completed together with identification of priority actions to meet such demand as efficiently as possible. (Yes/No, Custom)

<table>
<thead>
<tr>
<th>Value</th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>


### Study on options for the development of a new organizational model completed. (Yes/No, Custom)

<table>
<thead>
<tr>
<th>Value</th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td></td>
</tr>
</tbody>
</table>


### Km of water pipes rehabilitated. (Kilometers, Custom)

<table>
<thead>
<tr>
<th>Value</th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>250.00</td>
<td>250.00</td>
<td>384.00</td>
<td></td>
</tr>
</tbody>
</table>

| Date   | 09-Mar-2011 | 08-May-2015 | 01-Mar-2017 | 31-Dec-2019 |

### Km of sewerage pipes rehabilitated. (Kilometers, Custom)

<table>
<thead>
<tr>
<th>Value</th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
<td>246.00</td>
<td></td>
</tr>
</tbody>
</table>

| Date   | 09-Mar-2011 | 08-May-2015 | 01-Mar-2017 | 31-Dec-2019 |
No. of schools reached with information on rational water use, including information on water saving equipment (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
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<td>0.00</td>
<td>0.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Date</td>
<td>01-Jan-2015</td>
<td>08-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

Complaints satisfactorily redressed (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>65.00</td>
<td>65.00</td>
<td>65.00</td>
<td>85.00</td>
</tr>
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<td>Date</td>
<td>01-Jan-2015</td>
<td>10-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
</tr>
</tbody>
</table>

Integrated Non-Revenue Water management Action Plan elaborated and approved by SEDAPAL's General Management and Board (Yes/No, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Date</td>
<td>01-Jan-2015</td>
<td>10-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

Number of people (men and women) participating in learning events on strategic planning and management (Amount(USD), Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
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<td>Value</td>
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<td>2.00</td>
<td>2.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Date</td>
<td>09-Mar-2011</td>
<td>10-May-2015</td>
<td>01-Mar-2017</td>
<td>31-Dec-2019</td>
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</tbody>
</table>

Overall Comments
Data on Financial Performance

Disbursements (by loan)

<table>
<thead>
<tr>
<th>Project</th>
<th>Loan/Credit/TF</th>
<th>Status</th>
<th>Currency</th>
<th>Original</th>
<th>Revised</th>
<th>Cancelled</th>
<th>Disbursed</th>
<th>Undisbursed</th>
<th>Disbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>P117293</td>
<td>IBRD-80250</td>
<td>Effective</td>
<td>USD</td>
<td>54.50</td>
<td>54.50</td>
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<td>52.95</td>
<td>1.55</td>
<td>97%</td>
</tr>
<tr>
<td>P117293</td>
<td>IBRD-84680</td>
<td>Effective</td>
<td>USD</td>
<td>55.00</td>
<td>55.00</td>
<td>0.00</td>
<td>0.20</td>
<td>54.80</td>
<td>0%</td>
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</table>

Key Dates (by loan)

<table>
<thead>
<tr>
<th>Project</th>
<th>Loan/Credit/TF</th>
<th>Status</th>
<th>Approval Date</th>
<th>Signing Date</th>
<th>Effectiveness Date</th>
<th>Orig. Closing Date</th>
<th>Rev. Closing Date</th>
</tr>
</thead>
</table>

Cumulative Disbursements

Restructuring History

Level 2 Approved on 27-Oct-2016
Related Project(s)

P133287-PE AF-Second Optimization of Lima Water & Sewerage