Yunnan Highway Asset Management Project (P132621)

Key Dates

Key Project Dates

- Bank Approval Date: 31-Mar-2015
- Planned Mid Term Review Date: 31-Mar-2018
- Original Closing Date: 31-Dec-2020

- Effectiveness Date: 19-Aug-2015
- Actual Mid-Term Review Date: 09-Apr-2018
- Revised Closing Date: 31-Dec-2020

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The Project Development Objective is to improve the efficiency and cost-effectiveness of highway asset management in Yunnan.

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

No

Components

Name

- Highway Asset Management Improvement: (Cost $58.28 M)
- Maintenance and Emergency Response Capacities Enhancement: (Cost $161.69 M)
- Pilot of Cost-Effective Maintenance Technologies: (Cost $25.83 M)
- Strengthening Institutional Capacities: (Cost $8.13 M)

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>Satisfactory</td>
<td>Moderately Satisfactory</td>
</tr>
<tr>
<td>Overall Implementation Progress (IP)</td>
<td>Moderately Satisfactory</td>
<td>Moderately Satisfactory</td>
</tr>
<tr>
<td>Overall Risk Rating</td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
</tbody>
</table>

Implementation Status and Key Decisions

The project is likely to achieve its development objectives. All the project components are under implementation. By the end of March 2019, 290 of the 304 maintenance stations and emergency response centers have been completed and are under acceptance inspection. The emergency command center of Yunnan Highway Bureau (YHB) is put in use, which significantly enhances the maintenance and emergency response capacities of YHB. The pilot of cold recycling of basecourse is ongoing, which help lower road maintenance cost and environmental impact. The road asset management system has been piloted in 4 prefectures and is rolling out to all the 16 prefectures. The system will improve maintenance decisions, implementation, and performance evaluation. Various training programs have been provided to YHB staff at different levels to upgrade their knowledge and skills. The road asset valuation manual and accounting guideline have been drafted and submitted to provincial Department of Transport for review and clearance/adoption. Since road asset valuation and accounting are new in China, the review process has taken longer...
than anticipated and should be expedited. The trial valuation of road assets has been completed, which shows the road asset valuation methodology developed is practical and lays a foundation for Yunnan to know the value of its road assets and manage the road assets by following engineering and economic principals.
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>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Macroeconomic</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Sector Strategies and Policies</td>
<td>--</td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
<tr>
<td>Technical Design of Project or Program</td>
<td>--</td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
</tbody>
</table>
Institutional Capacity for Implementation and Sustainability
- Substantial

Fiduciary
- Moderate

Environment and Social
- Moderate

Stakeholders
- Moderate

Other
--

Overall
- Substantial

Results

PDO Indicators by Objectives / Outcomes

cost-effectiveness of highway asset management

Percentage of highways in good/fair condition (Percentage, 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>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Date
- 31-Dec-2013
- 23-Nov-2018
- 31-Dec-2018
- 31-Dec-2020

National Highways (Percentage, Custom Breakdown)

<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>50.20</td>
<td>78.27</td>
<td>86.39</td>
<td>60.00</td>
<td></td>
</tr>
</tbody>
</table>

Date
- 31-Dec-2013
- 23-Nov-2018
- 31-Dec-2018
- 31-Dec-2020

Provincial highways (Percentage, Custom Breakdown)

<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>50.00</td>
<td>65.24</td>
<td>81.87</td>
<td>60.00</td>
<td></td>
</tr>
</tbody>
</table>

Date
- 31-Dec-2013
- 23-Nov-2018
- 31-Dec-2018
- 31-Dec-2020

Percentage of periodical and rehabilitation maintenance funds allocated based on the recommendations of the asset management system. (Percentage, 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>0.00</td>
<td>0.00</td>
<td>75.00</td>
<td></td>
</tr>
</tbody>
</table>

Date
- 31-Dec-2013
- 23-Nov-2018
- 31-Dec-2018
- 31-Dec-2020

efficiency of highway asset management

Length of network per routine maintenance staff member (Km/staff) (Text, Custom)
### Intermediate Results Indicators by Components

#### Highway Asset Management Improvement

- **Establishment of an integrated highway asset management information system (Yes/No)**
  - Baseline: No
  - Actual (Previous): No
  - Actual (Current): No
  - End Target: Yes
  - Dates:
    - Baseline: 31-Dec-2013
    - Actual (Previous): 23-Nov-2018
    - Actual (Current): 31-Dec-2018
    - End Target: 31-Dec-2020

- **Annual maintenance funds (RMB/km)**
  - Baseline: 38,800
  - Actual (Previous): 40,144
  - Actual (Current): 47,100
  - End Target: 48,500
  - Dates:
    - Baseline: 31-Dec-2013
    - Actual (Previous): 23-Nov-2018
    - Actual (Current): 31-Dec-2018
    - End Target: 31-Dec-2020

- **Percentage of paved road network surveyed (Percentage)**
  - Baseline: 0.00
  - Actual (Previous): 0.00
  - Actual (Current): 0.00
  - End Target: 0.00
  - Dates:
    - Baseline: 31-Dec-2013
    - Actual (Previous): 23-Nov-2018
    - Actual (Current): 31-Dec-2018
    - End Target: 31-Dec-2020

- **Road (Percentage, Custom Breakdown)**
  - Baseline: 60.00
  - Actual (Previous): 74.60
  - Actual (Current): 91.60
  - End Target: 80.00
  - Dates:
    - Baseline: 31-Dec-2013
    - Actual (Previous): 23-Nov-2018
    - Actual (Current): 31-Dec-2018
    - End Target: 31-Dec-2020

- **Bridge (Percentage, Custom Breakdown)**
  - Baseline: 60.00
  - Actual (Previous): 71.90
  - Actual (Current): 85.40
  - End Target: 80.00
  - Dates:
    - Baseline: 31-Dec-2013
    - Actual (Previous): 23-Nov-2018
    - Actual (Current): 31-Dec-2018
    - End Target: 31-Dec-2020

#### Maintenance and Emergency Response Capacities Enhancement
%Percentage of Maintenance Stations and Emergency Response Centers Enhanced (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>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

%Stations (408 in total) (Percentage, Custom Breakdown)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
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</thead>
<tbody>
<tr>
<td>Value</td>
<td>45.00</td>
<td>83.10</td>
<td>98.30</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

%Centers at prefecture level (16 in total) (Percentage, Custom Breakdown)

<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>6.00</td>
<td>56.30</td>
<td>75.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

%Centers at county level (126 in total) (Percentage, Custom Breakdown)

<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>50.00</td>
<td>79.40</td>
<td>97.60</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

%Time to respond to emergency events (Text, 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>4 hours</td>
<td>3.5 hours</td>
<td>3.5 hours</td>
<td>3 hr</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

Pilot of Cost-Effective Maintenance Technologies

%Number of innovative technology contracts piloted (Text, 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>0.00</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>23-Nov-2018</td>
<td>31-Dec-2018</td>
<td>31-Dec-2020</td>
</tr>
</tbody>
</table>

Strengthening Institutional Capacities

%Percentage of technical assistances completed and adopted (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
</table>
**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>P132621</td>
<td>IBRD-84850</td>
<td>Effective</td>
<td>USD</td>
<td>150.00</td>
<td>150.00</td>
<td>0.00</td>
<td>42.60</td>
<td>107.40</td>
<td>28%</td>
</tr>
</tbody>
</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

There has been no restructuring to date.

Related Project(s)

There are no related projects.