

## FINANCIAL ANALYSIS

1. The financial analysis follows the guidelines in the *Financial Management and Analysis of Projects* of the Asian Development Bank (ADB)<sup>1</sup> and the *Financial Due Diligence Methodology Note*.<sup>2</sup> The financial evaluation of subprojects uses real terms with constant 2013 prices. The project cost estimates in nominal terms are converted to real terms by adjusting for the projected effects of foreign and domestic inflation and currency fluctuation. Incremental costs and benefits are derived by evaluating the financial position of the implementing agencies under the with- and without-project scenarios. All subprojects are considered to be nonrevenue generating, thus, the financial analysis focuses on the project owners' financial capacity to meet the operation and maintenance (O&M) cost of the improved access roads. The overall financial position of the project owners is projected from fiscal years 2014 to 2025.
2. The provincial departments of transportation (DOT) are identified as the project owners of all access roads constructed under the project, and will be responsible for road maintenance. Funds for O&M of these assets will come from the annual DOT budgets. The small infrastructure facilities in the tourist sites will be operated and maintained by the management committees under the authority of the provincial departments of culture sports and tourism (DCST) using income from receipts generated from entrance fees, parking, rental fees, and other fees and charges. A separate financial sustainability analysis for these small infrastructure subprojects was prepared to ensure that the fees will be sufficient to cover appropriate O&M.<sup>3</sup> The detailed description of all subprojects is in the Project Administration Manual.
3. All subprojects are evaluated to be financially viable and sustainable, although the access roads in Lao Cai and Dien Bien provinces will require additional government subsidy to the DOT when the required periodic maintenance is due in 2023. Aside from the access roads, the projected financial positions of the project owners confirm their financial capacity is adequate to cover the recurrent costs to sustain facilities developed under the project. Moreover, given the government's assurance that it will fund the operating expenditure and periodic maintenance, an adequate budget allocation to cover the recurrent O&M costs of infrastructure assets is reasonably expected. A covenant is included in the loan agreement for this purpose. Experience from previous tourism projects confirms that the government has in the past allocated sufficient budget for O&M of access roads and other infrastructure that is important for tourism.<sup>4</sup>
4. The road upgrading aims to provide higher resilience to extreme climate events, as well as accommodate the rapidly growing number of tourists and increasing number and size of vehicles in the project areas. The cost of maintaining an upgraded road is significantly less than attempting to provide the same service on a road that has not been upgraded. Failure to upgrade these facilities will increase O&M costs in the long term and will be an obstacle for tourists and vehicles to access the tourism sites and areas in which the sites are located.
5. The financial sustainability analysis for each of the three DOTs maintaining access road subprojects follows.

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<sup>1</sup> ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

<sup>2</sup> ADB. 2009. *Financial Due Diligence, A Methodology Note*. Manila.

<sup>3</sup> Institutional Analysis and Arrangements for O&M (available from the list of linked documents in Appendix 2).

<sup>4</sup> ADB. 2011. *Completion Report: Greater Mekong Subregion: Mekong Tourism Development Project in Cambodia, Lao People's Democratic Republic, and Viet Nam*. Manila.

6. **Dien Bien Department of Transportation.** The historical income and expenditure statement shows that the annual budget of the department has been increasing steadily and posting a moderate surplus each year. Assuming that revenue will increase by 6% annually and expenditures by 5%, Dien Bien DOT will have sufficient funds to conduct annual routine maintenance of the new 19 km Muong Phang access road when DOT takes responsibility for the maintenance starting in fiscal year 2019. However, when the expected periodic maintenance is required 5 years later in fiscal year 2023, DOT is not expected to have sufficient funds to undertake the periodic maintenance. The government will have to provide about D977 million for this purpose. The additional maintenance budget augments the current budget that DOT uses for other road assets and facilities. Since the amount needed to maintain the new road is significant, the province should generate additional revenues, reallocate budget from other departments, or increase allocations from the central government to subsidize periodic maintenance. The projected income and expenditure for Dien Bien DOT are in Table 1.

**Table 1: Dien Bien Department of Transportation Income and Expenditure**  
(D million)

Item	Fiscal Year						
	2019	2020	2021	2022	2023	2024	2025
<b>Income</b>	1,137	1,206	1,278	1,355	1,436	1,522	1,614
<b>Expenditure</b>							
Salaries	306	322	338	355	372	391	410
Administration	74	78	82	86	90	94	99
Utilities	282	296	311	327	343	360	378
Training	102	107	113	118	124	130	137
<b>Total Expenditure</b>	<b>764</b>	<b>803</b>	<b>843</b>	<b>885</b>	<b>929</b>	<b>976</b>	<b>1,024</b>
<b>Operating Surplus (Deficit)</b>	<b>536</b>	<b>522</b>	<b>558</b>	<b>577</b>	<b>561</b>	<b>589</b>	<b>634</b>
<b>Maintenance</b>							
Existing roads	215	226	237	249	261	274	288
Muong Phang access road	279	279	279	279	1,277	299	299
<b>Total Maintenance</b>	<b>494</b>	<b>505</b>	<b>516</b>	<b>528</b>	<b>1,538</b>	<b>573</b>	<b>587</b>
<b>Surplus (Deficit)</b>	<b>42</b>	<b>17</b>	<b>42</b>	<b>49</b>	<b>(977)</b>	<b>16</b>	<b>47</b>

Source: Asian Development Bank estimates.

7. **Lao Cai Department of Transportation.** The historical income and expenditure statement shows that the annual budget of the department has been increasing steadily and posting a moderate surplus each year. Assuming that revenue will increase by 6% annually and expenditures by 5%, Lao Cai DOT will have sufficient funds to conduct annual routine maintenance on the new 15 km access road to Ta Phin–Ban Khoang when it takes responsibility for the maintenance starting in fiscal year 2019. However, when the expected periodic maintenance is required 5 years later in fiscal year 2023, DOT is not expected to have sufficient funds for periodic maintenance. The government will have to provide about D584 million for this purpose. The additional maintenance budget is on top of the current budget that DOT uses for other road assets and facilities. Since the amount needed to maintain the new road is significant, the province should generate additional revenue, reallocate budget from other departments, or increase allocations from the central government to subsidize the periodic maintenance. The projected income and expenditure for Lao Cai DOT are in Table 2.

**Table 2: Lao Cai Department of Transportation Income and Expenditure**  
(D million)

Item	Fiscal Year						
	2019	2020	2021	2022	2023	2024	2025
<b>Income</b>	<b>1,529</b>	<b>1,621</b>	<b>1,718</b>	<b>1,821</b>	<b>1,930</b>	<b>2,046</b>	<b>2,169</b>
<b>Expenditure</b>							
Salaries	306	322	338	355	372	391	410
Administration	74	78	82	86	90	94	99
Utilities	282	296	311	327	343	360	378
Training	102	107	113	118	124	130	137
<b>Total Expenditure</b>	<b>764</b>	<b>803</b>	<b>843</b>	<b>885</b>	<b>929</b>	<b>976</b>	<b>1,024</b>
<b>Operating Surplus (Deficit)</b>	<b>764</b>	<b>818</b>	<b>875</b>	<b>936</b>	<b>1,001</b>	<b>1,070</b>	<b>1,144</b>
<b>Maintenance</b>							
Existing roads	491	516	542	569	597	627	659
Ta Phin segment	88	88	88	88	403	94	94
Ban Khoang segment	128	128	128	128	585	137	137
<b>Total Maintenance</b>	<b>707</b>	<b>732</b>	<b>758</b>	<b>785</b>	<b>1,585</b>	<b>858</b>	<b>890</b>
<b>Surplus (Deficit)</b>	<b>57</b>	<b>86</b>	<b>117</b>	<b>151</b>	<b>(584)</b>	<b>212</b>	<b>254</b>

Source: Asian Development Bank estimates.

8. **Kien Giang Department of Transportation.** The historical income and expenditure statement shows that the annual budget of the department has been increasing steadily and posting a moderate surplus each year. Assuming that revenue will increase by 6% annually and expenditure by 5%, Kien Giang DOT will have sufficient surplus funds to cover the routine and periodic maintenance requirements of the upgraded roads to both Phu Tu and Da Dung cave, totaling about 5.5 kilometers. The projected income and expenditure for Kien Giang DOT are in Table 3.

**Table 3: Kien Giang Department of Transportation Income and Expenditure**  
(D million)

Item	Fiscal Year						
	2019	2020	2021	2022	2023	2024	2025
<b>Income</b>	<b>1,750</b>	<b>1,855</b>	<b>1,966</b>	<b>2,084</b>	<b>2,209</b>	<b>2,342</b>	<b>2,482</b>
<b>Expenditure</b>							
Salaries	919	965	1,013	1,064	1,117	1,173	1,231
Administration	55	58	61	64	67	70	74
Utilities	77	81	85	90	94	99	104
<b>Total Expenditure</b>	<b>1,069</b>	<b>1,124</b>	<b>1,182</b>	<b>1,244</b>	<b>1,309</b>	<b>1,377</b>	<b>1,450</b>
<b>Operating Surplus (Deficit)</b>	<b>681</b>	<b>731</b>	<b>784</b>	<b>840</b>	<b>900</b>	<b>964</b>	<b>1,032</b>
<b>Maintenance</b>							
Existing roads	177	186	195	205	215	226	237
Phu Tu access road	51	51	51	51	235	55	55
Da Dung access road	29	29	29	29	134	31	31
<b>Total Maintenance</b>	<b>258</b>	<b>266</b>	<b>276</b>	<b>286</b>	<b>584</b>	<b>312</b>	<b>323</b>
<b>Surplus (Deficit)</b>	<b>423</b>	<b>464</b>	<b>508</b>	<b>555</b>	<b>316</b>	<b>652</b>	<b>709</b>

Source: Asian Development Bank estimates.