

FINANCIAL ANALYSIS

A. Introduction

1. The approach to the financial analysis followed Asian Development Bank guidelines for the financial analysis of projects.¹ The project will include improvement of a total of 146.6 kilometers (km) of flood-prone roads, upgrading of six axle load control weigh stations (at Bavet, Puok, Thnal Tutoeng, Kompong Thom, Kratie, and Steuong Treng), and establishment of four regional laboratories (in Kampot, Kratie, Pursat, and Siem Reap provinces). The above components are the key facilities to be developed under the project. The Ministry of Public Works and Transport (MPWT) is the executing agency and will be the owner of the facilities developed under the project.

2. Given that the MPWT will be responsible for operation and maintenance of the developed facilities after project completion, the financial analysis examines the financial capacity of the MPWT to cover the recurrent operating and maintenance costs by assessing its current and future financial positions and budgetary allocations. The financial analysis focuses on the financial sustainability of the above-mentioned facilities to be developed under the project.

B. Recurrent Expenditures

3. For the improvement of project roads, and after the end of the performance-based maintenance component in 2022 for national roads, the MPWT will need to cover the maintenance costs of the project roads. The road maintenance costs of the project roads for 2022–2031 are estimated based on average unit costs of \$9,210 per km for asphalt pavement with an inflation of 3% per annum. Table 1 shows the maintenance costs of project roads.

Table 1: Maintenance Costs of Project Roads
(\$'000)

No	Year	2022	2023	2024	2025	2026	2027
1	National Roads	-	1,400	1,442	1,485	1,530	1,576

No	Year	2028	2029	2030	2031	2032	2033
1	National Roads	1,623	1,672	1,722	1,773	1,827	1,881

Source: Ministry of Public Works and Transport.

4. Recurrent expenditures of upgrading six weigh stations mainly consist of personnel expenses and equipment maintenance. Information about estimated recurrent expenditures of the six weigh stations to be developed under the project were obtained at the discussion between ADB and the MPWT in January 2017, and is summarized in Table 2.

¹ Asian Development Bank. 2005. *Financial Management and Analysis of Projects*. Manila.

Table 2: Recurrent Expenditures of Weigh Stations
(\$'000)

	USD1,000						
Year	2019	2020	2021	2022	2023	2024	2025
Mobile team	148	148	148	152	157	162	167
Weigh station	223	298	298	307	316	326	335
Total	371	446	446	459	473	487	502
Year	2026	2027	2028	2029	2030	2031	
Mobile team	172	177	182	187	193	199	
Weigh station	345	356	367	377	389	400	
Total	517	533	549	565	582	599	

Source: Ministry of Public Works and Transport.

5. The regional laboratories will be established to perform material quality control testing for road works implemented by the MPWT with government funding. They will generate revenues for performing the tests. The earnings of the regional laboratories are derived from the cost allocation for quality assurance for road works. In 2016, the MPWT allocated about \$67 million for road maintenance and about \$70 million for road improvement works. One percent of the cost of road maintenance works and 33% of the cost of road improvement works are assumed to be used for MPWT quality assurance control by utilizing the regional laboratories. In addition to this, other civil work contracts which do not have dedicated laboratories are expected to utilize the MPWT laboratories, and this will generate an additional 10% of revenue. Operation and maintenance costs are computed based on staff costs, transportation, and other operational costs needed for the quality assurance. Table 3 summarizes the projected income and expenditure of the regional laboratories.

Table 3: Recurrent Income and Expenditure of Regional Laboratories
(\$'000)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Income												
Testing and QA Fees	508	823	1,186	1,280	1,383	1,493	1,613	1,742	1,881	2,032	2,194	2,370
Total Income	508	823	1,186	1,280	1,383	1,493	1,613	1,742	1,881	2,032	2,194	2,370
Expenditure												
Staff Salaries	285	396	411	428	445	463	601	626	651	677	704	732
Operating Expenses	88	128	138	150	162	175	189	205	221	239	259	280
Total Expenditure	373	524	549	578	607	638	790	831	872	916	962	1,012
Surplus / Deficit	135	299	637	702	776	855	823	911	1,009	1,116	1,232	1,358

Source: Ministry of Public Works and Transport.

C. Financial Capacity of the Ministry of Public Works and Transport

6. Funds for covering the post-project recurrent costs of operating and maintaining the developed facilities will come from the MPWT's annual budgets. The ministry's historical income and expenditure statements show that its annual income has increased steadily, achieving a surplus in fiscal years 2013, 2014, and 2015. Table 4 provides the historical financial statements for the MPWT for these years. The statements form the basis of the financial projections for the

MPWT for 2016–2030, which covers the project implementation period and nearly covers 8 years of full operation thereafter.

7. The main source of the MPWT's income is budget allocations from the Ministry of Economic and Finance (MEF). Based on the historical budget allocation from the MEF to the MPWT, the allocated budget grows in line with the increase in the MPWT's expenditures. The MEF and MPWT both confirm that budget allocations will continue to increase and strengthen the MPWT's financial capability for carrying out necessary improvements, maintenance, and management of its assets. To project the MPWT's budgetary revenue and expenditure, an annual total revenue increase of 6.9% and an annual expenditure increase of 6.9% are assumed based on the historical trend of Cambodia's gross domestic product (GDP) in 2014–2016 and the trend of projected GDP until 2024. The assumed increase in the MPWT's annual budgetary revenue and expenditure is 6.0% during 2025–2030. Table 4 shows the overall projected financial position of the MPWT during 2016–2030.

8. To ensure that the facilities developed under the project, including project roads, weigh stations and regional laboratories, will be sustainably maintained and operational, the MPWT needs to have sufficient funds to cover the recurrent expenditures of the facilities after project completion. The recurrent expenditures of the developed facilities are already described in paras. 3–5. This financial requirement is incremental to the current budget of the MPWT and is included in the financial projection of its budgetary revenue and expenditure as shown in Table 5.

D. Financial Analysis Results

9. Funds allocated to the MPWT's budget have steadily increased since 2014. The MPWT is expected to have adequate budget allocation to cover the recurrent costs to sustain the project facilities based on the projection of its financial position. However, it is noted that a major portion of the road network in the project provinces needs substantial improvement, through a combination of additional maintenance and/or rehabilitation works. As the quality of roads is progressively deteriorating because of increasing traffic, flooding, inadequate quality works, and vehicle overloading, the MPWT needs to understand the longer-term road sector financing needs and explore several alternative road financing options over and above the national budget. The technical assistance for Institutional Capacity Building in the Road Sector² will assist the MPWT on these to help sustain the road assets at the agreed services level. In addition, the World Bank's Road Asset Management Project II will enhance maintenance planning process that will optimize maintenance priority of the MPWT's roads, including the project roads, based on condition and traffic volume. With these arrangements, the project is considered likely to be sustainable.

² ADB. 2017. *Technical Assistance to the Kingdom of Cambodia for Institutional Capacity Building in the Road Sector*. Manila (TA 9300-CAM). The consulting services are ongoing.

Table 4: Ministry of Public Works and Transport – Income and Expenditure, FY2013 – FY2030

	Historical								Projected										million\$
Description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Income																			
MEF Budget	118.2	163.0	206.4	220.7	235.9	252.2	269.6	288.2	308.1	329.3	352.1	367.3	398.9	422.2	448.2	475.1	503.6	533.9	
Other	9.2	12.4	14.8	15.8	16.9	18.1	19.3	20.7	22.1	23.6	25.3	27.0	28.6	30.3	32.2	34.1	36.1	38.3	
Total Budget	127.4	175.4	221.2	236.5	252.8	270.3	288.9	308.9	330.2	352.9	377.4	394.3	427.5	452.5	480.4	509.2	539.7	572.2	
Expenditure																			
Goods and Supplies	2.10	2.85	2.33	2.49	2.66	2.84	3.04	3.25	3.47	3.71	3.97	4.24	4.37	4.5	4.64	4.78	4.92	5.07	
Routine Maintenance	17.10	64.10	66.30	70.90	75.80	81.00	85.60	92.50	98.90	105.80	113.10	120.90	124.50	128.20	132.10	136.00	140.10	144.30	
Other Services	1.33	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Taxes and Excises	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	
Personnel	7.90	10.00	14.30	15.30	16.30	17.40	18.70	19.90	20.30	22.80	24.40	26.00	27.30	28.70	30.10	31.70	33.20	34.90	
Subsidies and Social Aids	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
New Construction and Commitment	88.90	82.70	121.20	129.60	138.60	148.10	158.30	169.30	180.90	193.40	206.80	221.00	236.50	253.10	270.80	289.70	310.00	331.70	
Maintenance for Project Roads											1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.70	
Weigh Stations Operations							0.4	0.4	0.4	0.50	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.60	
Regional Laboratory Operations							0.4	0.5	0.6	0.60	0.6	0.6	0.8	0.8	0.9	0.9	1.0	1.00	
Total Expenditure	117.4	161.9	204.2	218.3	233.4	249.4	266.5	285.9	304.6	326.9	350.8	374.7	395.6	417.4	440.7	465.3	491.6	519.4	
Surplus / Deficit (-)	10.0	13.5	17.0	18.2	19.4	20.9	22.4	23.0	25.6	26.0	26.6	19.6	32.0	35.1	39.7	43.9	48.1	52.8	
Maintenance for Future Roads Construction or Commitment	0	0	0	0	3.1	12.9	14.8	14.8	15.7	15.7	15.7	15.7	17.3	19.0	20.9	23.0	25.3	27.8	
Surplus/Deficit (-) After accounting for additional future maintenance needs	10.0	13.5	17.0	18.2	16.3	8.0	7.6	8.2	9.9	10.3	10.9	3.9	14.7	16.1	18.8	20.9	22.8	25.0	

Source: Ministry of Public Works and Transport.