

FINANCIAL ANALYSIS

A. Introduction

1. The project's components and the financial analysis undertaken are summarized in Table 7.1.

Table 7.1: Summary of Financial Due Diligence

Town	Component	Project Funds from National Government	Fiscal Analysis Undertaken	Revenue Generating Potential	Tariff to Cover Recurrent Costs	Affordability Analysis
HOUAYXAY	Riverbank Upgrading and Protection	Assumed 100% grant to province	Houayxay Town, Bokeo Province, and UDAA	No	No	No
	Riverside Road and Walkway			No	No	No
	River Port Rehabilitation			Yes	Yes	No
	Ecological Park and Recreation Area			No	No	No
	Solid Waste Management			Solid waste (SW) fees collected by UDAA	Yes	Yes
	Urban Roads and Drainage Upgrading			No		No
LUANG NAMTHA	Solid Waste Management	Assumed 100% grant to province	Luang Namtha Town, Luang Namtha Province and UDAA	SW fees collected by UDAA	Yes	Yes
	Urban Village Upgrading			No	No	No
	Urban Roads Drainage			No	No	No
	Urban Recreation Facilities Upgrading			No	No	No
	Nam Tha River Bridge			No	No	No

Note: The executing agency for all components is the Department of Housing and Urban Planning (DHUP) under the Ministry of Public Works and Transport (MPWT), while the Implementing Agency for all components is the Provincial Department of Public Works and Transport (DPWT) also under MPWT.

UDAA = Urban Development Administration Authority

Source: Asian Development Bank estimates

2. The national government will provide the proceeds of the Asian Development Bank's loan to the provinces as grants. The provinces will be (i) obligated to provide the funds required to properly operate and maintain the components with no direct revenue-generating potential, (ii) required to increase tariffs to achieve cost recovery for the revenue-generating components, and (iii) obligated to provide any subsidies required to cover operation and maintenance (O&M) costs of the completed infrastructure.

B. Financial Evaluation of Revenue-Generating Components

3. The revenue-generating components are (i) solid waste management in Houayxay (Bokeo Province) and Luang Namtha (Luang Namtha Province), which is currently under the respective Urban Development Administration Authority (UDAA); and (ii) river port management in Houayxay under the Department of Waterway Administration (DWA) in Bokeo Province. The financial assessment includes reviewing past financial statements; reviewing the level of the existing tariffs and the tariffs required to properly operate and maintain the facilities; and projecting the funding gap, if any, that needs to be covered by the local governments.

4. The UDAA is in charge of solid waste management in urban centers; wastewater management; roads; transport; streetlight and park maintenance; and billing and collecting of fees for solid waste management, wastewater, and other urban services. Any funding shortfalls are financed by the provincial budget.

1. Solid Waste Management

5. **Houayxay Town.** The UDAA provides solid waste management services to about 2,467 customers, including 1,616 households and 733 businesses from 10 of the 17 villages in urban areas (17% service coverage as of 2014). Current monthly tariffs are KN15,000 for households and KN20,000–KN5 million for other customers. The UDAA's revenues are not enough to cover recurrent costs and Bokeo Province's annual subsidy to the UDAA averaged 73% of annual expenditures during FY2011–FY2014 (Table 7.2). The current physical condition of the solid waste collection and disposal system clearly indicates insufficient funding for proper O&M of the facilities.

Table 7.2: Revenue and Expenditure, Bokeo Province Urban Development Administration Authority
(KN million)

	Description	FY2011	FY2012	FY2013	FY2014
I	Revenue	582	779	768	1,775
1	Funds from budget ^a	429	541	515	1,354
2	Revenue from services	153	238	254	421
2.1	Solid waste	93	175	213	385
2.2	Public lighting, wastewater, building permits, septic tank emptying	59	63	41	35
II	Expenditure	572	787	766	1,774
1	Budget expenses ^a	429	552	515	1,354
2	Service expenses	143	235	251	420
2.1	Solid waste	93	174	213	385
2.2	Public lighting, wastewater, building permits, septic tank emptying	50	61	39	34
III	Balance (I – II)	10	(8)	2	1

() = negative.

^a Salary, allowance, operating expenses, bonus, and public investment.

Source: Bokeo Province Urban Development Administration Authority.

6. **Luang Namtha town.** Luang Namtha Province's UDAA collects solid waste from 1,416 customers, including 1,153 households and 71 businesses (12% service coverage), and it collects monthly tariffs of KN15,000 for households and KN20,000–KN6 million for other customers. Its revenues and expenditures for the FY2013–FY2014 are shown in Table 7.3. Almost 64% of total revenue comes from solid waste management. Like Houayxay, revenues are not enough to cover the O&M cost of the solid waste management system, in this case because of low tariffs and the small number of customers.

Table 7.3: Revenue and Expenditure, Luang Namtha Province Urban Development Administration Authority
(KN million)

	Description	FY2013	FY2014
I	Revenue	379	304
	Previous balance	45	52
1	Technical fee	4	4
2	Urban Development Administration Authority revenue	81	64
3	Solid waste revenue	249	185
II	Expenditure	327	234
1	Technical	9	4
2	Urban Development Administration Authority	75	48
3	Solid waste	244	181
	Balance (I – II)	52	71

Source: Luang Namtha Province Urban Development Administration Authority.

7. **Proposed tariffs and affordability analysis.** The proposed solid waste management tariffs for both subprojects are designed to cover at least the O&M costs of the solid waste component. The assumptions for the financial projections include 2015 revenues for the without-project scenario. For Houayxay Town, (i) the number of households and commercial customers are projected to increase by 5% every year starting in 2017; (ii) O&M is 4% of capital cost; (iii) proposed tariff increases are 10% in 2016, 20% in 2019, 25% in 2022, 20% in 2025, 20% in 2028, 20% in 2031, and 20% in 2034; and (iv) the number of customers by 2028 will be 4,544, including 4,413 households and businesses (21% service coverage). For Luang Namtha town, (i) the number of households and commercial customers will increase by 4%–10% every year starting in 2017; (ii) O&M is 4% of capital cost; (iii) proposed tariff increases are 25% in 2016, 25% in 2019, and 20% in 2022 and every 3 years thereafter; and (iv) the number of customers by 2028 will be 4,161, including 3,837 households and businesses (25% service coverage). The tariffs for Houayxay solid waste management are proposed to start at KN16,500 in 2016 and will increase to KN35,600 by 2028, or 0.98%–1.24% of monthly household income of the low income group (i.e., the lowest 10% quantile) (Table 7.4). The proposed tariffs for Luang Namtha solid waste management will start at KN18,800 in 2016 and will increase to KN40,500 by 2028, or 1.05%–1.34% of monthly household income of the low income group. If the above-mentioned tariffs are implemented, revenues would cover 59% of the estimated O&M costs for the solid waste component in 2019, increasing to 162% by 2028 for Houayxay; and 40% in 2016 and increasing to 151% by 2028 for Luang Namtha. In the later years, this will generate some cash for asset replacement and/or expansion and improvement of services.

Table 7.4: Proposed Solid Waste Tariff and Affordability – Household

Subproject		2016	2019	2022	2025	2028
Houayxay	KN per month	16,500	19,800	24,800	29,700	35,600
	% of monthly household income	0.98%	1.03%	1.12%	1.18%	1.24%
Luang Namtha	KN per month	18,800	23,400	28,100	33,700	40,500
	% of monthly household income	1.05%	1.15%	1.21%	1.28%	1.34%

Source: Asian Development Bank estimates.

2. River Port Management

8. Bokeo Province's DWA operates two river ports, including one in Houayxay's urban center that caters to local and international passenger boats. The DWA monitors big boats (i.e., those with a capacity of 50 persons and above), while Houayxay town monitors boats smaller than this. The DWA charges KN30,000 per boat trip, while Houayxay charges KN750,000 per

month from the small boat association. Use of the river port requires a yearly registration fee of KN800,000 for big boats and KN670,000 for small boats. Monthly revenue from the two river port operations is about KN22 million. According to the head of the DWA, its annual revenues are less than the annual expenditures.

9. Financial projection assumptions for river port fees include the following: the total number of boats using the port will increase by one unit every year starting in 2016; the tariff will increase by 10% in 2016, 25% in 2019, and every 3 years thereafter; and O&M cost accounts of 2% of capital cost. The proposed tariffs were designed to at least cover the O&M cost of the river port component.

C. Fiscal Analysis

10. The financial analysis includes a review of the financial performance of the local governments for 2011-2013. The provincial government's total annual revenues are composed of revenues retained in the province and fund transfers (including funds for line agencies and subsidies) from the central government. Revenues collected in the province, depending on the type of revenue, are either totally retained by the province or remitted to the central government to be shared by less affluent provinces.¹ The same procedure is applied for revenue collection by town governments.

11. Expenditure includes recurrent costs (including regular maintenance of infrastructure) and capital investments (including the cost of periodic maintenance of infrastructure). From FY2011 to FY2013, Houayxay and Luang Namtha towns were able to cover from 40% to 64% of annual recurrent costs. During the same period, recurrent and capital investment costs covered by retained revenues ranged from 40% to 62%.² Bokeo and Luang Namtha provinces' revenue covered from 28% to 44% of recurrent costs, and from 24% to 35% of recurrent and capital investment costs (Table 7.5).

Table 7.5: Costs Covered by Revenue Retained, and Revenue and Cost
(KN billion)

Subproject	% Covered by Revenues Retained (FY2013)		FY2011		FY2012		FY2013	
	Recurrent Cost	Recurrent and Capital Investment Cost ^a	Revenue	Cost	Revenue	Cost	Revenue	Cost
Bokeo Province	27.5%	23.5%	129.2	118.5	170.1	158.7	261.2	286.5
Houayxay Town	40.5%	40.0%			5.4	5.0	8.6	7.5
Luang Namtha Province	36.9%	27.3%	132.8	132.8	160.5	160.5	118.0	118.0
Luang Namtha Town	63.6%	62.4%					5.6	5.6

Source: Asian Development Bank estimates

12. Houayxay Town's projected cash flow shows that incremental revenues from the solid waste and river port components will range from KN0.90 billion to KN3.35 billion per year from 2019 to 2028. O&M requirements for solid waste management, urban roads and drainage upgrading, and integrated urban development are projected to range from KN4.90 billion to KN7.28 billion during the same period, resulting in a funding gap of KN3.93 billion to 4.49 billion per year (1.6% of Bokeo Province's expenditure for FY2013). For Luang Namtha Town,

¹ The percentage remitted varies by type of revenue.

² Capital investments financed by towns are very minimal. Major investments are financed by the province.

incremental revenue from the solid waste components will range from KN0.39 billion to KN2.24 billion per year from 2019 to 2028. O&M requirements for solid waste management and integrated urban development are projected to range from KN4.98 billion to KN7.40 billion during the same period, resulting to a funding gap of KN4.58 billion to KN5.46 billion per year (4.6% of Luang Namtha Province's expenditure for FY2013) (Table 7.6).

Table 7.6: Projected Revenue, Operation and Maintenance, and Funding Gap
(KN billion)

		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Houayxay											
Inflow	Solid Waste Revenue	0.61	0.66	0.71	1.08	1.15	1.23	1.67	1.77	1.87	2.48
	River Port Revenue	0.29	0.29	0.29	0.42	0.42	0.43	0.60	0.60	0.60	0.88
Total Inflow		0.90	0.95	1.00	1.50	1.57	1.65	2.26	2.37	2.48	3.35
Outflow	Solid Waste O&M	(1.03)	(1.08)	(1.12)	(1.17)	(1.23)	(1.28)	(1.34)	(1.40)	(1.46)	(1.53)
	Urban Roads and Drainage Upgrading	(2.45)	(2.56)	(2.68)	(2.80)	(2.92)	(3.05)	(3.19)	(3.33)	(3.48)	(3.64)
	Integrated Urban Development	(1.42)	(1.48)	(1.55)	(1.62)	(1.69)	(1.77)	(1.85)	(1.93)	(2.02)	(2.11)
Total Outflow		(4.90)	(5.12)	(5.35)	(5.59)	(5.84)	(6.10)	(6.38)	(6.67)	(6.96)	(7.28)
Funding Gap		4.00	4.17	4.34	4.09	4.27	4.45	4.11	4.30	4.49	3.93
Luang Namtha											
Total Inflow	Solid Waste Revenue	0.39	0.45	0.50	0.77	0.85	0.94	1.35	1.48	1.62	2.24
Outflow	Solid Waste O&M	(0.99)	(1.04)	(1.09)	(1.13)	(1.19)	(1.24)	(1.29)	(1.35)	(1.41)	(1.48)
	Integrated Urban Development	(3.98)	(4.16)	(4.35)	(4.55)	(4.75)	(4.97)	(5.19)	(5.42)	(5.67)	(5.92)
Total Outflow		(4.98)	(5.20)	(5.44)	(5.68)	(5.94)	(6.20)	(6.48)	(6.78)	(7.08)	(7.40)
Funding Gap		4.58	4.76	4.93	4.91	5.08	5.26	5.14	5.30	5.46	5.16

Note: () = negative

Source: Asian Development Bank estimates.

D. Proposed Covenants

13. **Government commitment on fund allocations.** The government will provide counterpart funds for project implementation and to finance O&M cost that will not be covered by the incremental revenues generated.

14. **Target increasing cost recovery.** Financial sustainability of the proposed subprojects is highly dependent on the resolve of the provincial governments to cover the total O&M costs. Implementing the proposed tariffs will reduce the funding gap required. For the solid waste components, the provincial governments will be obligated to adjust tariffs to gradually achieve cost recovery for O&M costs and to cover any funding gap resulting from non-cost recovery tariffs or insufficient tariff collection.

15. **Ring-fencing of revenue-generating activities.** Parallel to the implementation of the required tariffs, steps will be taken through capacity development activities to ring-fence the activities and financial records of the revenue-generating activities. Ring-fencing results in more accurate information that can be used to make decisions about resource allocation, operational and management changes and improvements, and tariff setting.