

FINANCIAL ANALYSIS

1. The project components and the financial analysis are summarized in Table 1.

Table 1: Project Components and Financial Analysis

Component	Subcomponent	Project Cost (\$ million)	Flow of Funds (\$ million)	Financial Analysis Undertaken	FIRR	Affordability Analysis
Quang Nam Province (Hoi An City)						
Water Supply Improvement		8.15				
			30.6	Cash flow analysis	Yes	Yes, for water tariffs
Co Co Urban Development	Urban planning and urban infrastructure	26.19	onlent by MOF to QN WSDC			
	Access Road	29.05	39.4	QN PPC fiscal analysis		
Integrated Flood Management		18.43	onlent by MOF			
Project Implementation Support		2.76	to QN PPC			
Subtotal Quang Nam Province		84.60	69.07			
Land acquisition and Resettlement		18.52				
Total Quang Nam Province		103.12				
Quang Binh Province(Dong Hoi City)						
Bao Ninh Urban Development		29.96				
Wastewater Management		6.10	30.0	QB PPC fiscal analysis		Yes, for wastewater tariffs
			onlent by MOF to QB PPC	URENCO cash flow analysis for wastewater O&M		
Project Implementation Support		2.43				
Land acquisition and Resettlement		2.58				
Total Quang Binh Province		41.06				
Total		144.18				

MOF = Ministry of Finance, PPC = Provincial People's Committee, QB = Quang Binh, QN = Quang Nam, WSDC = water supply and drainage joint stock company,

Source: ADB. 2014. *OM G2: Financial Management, Cost Estimates, Financial Analysis and Financial Performance Indicators*. Manila.

ADB OCR Loan \$100 million.

2. **Institutional and financing arrangements:** The Quang Nam province components (\$103.12 million) will be located in Hoi An city. The Quang Nam Provincial People's Committee (PPC) will be the executing agency and the Quang Nam Water Supply and Drainage Company (WSDC) will be the implementing agency. The Quang Binh province components (\$41.06 million) will be located in Dong Hoi city. The Quang Binh PPC will be the executing agency and the Quang Binh Urban Environment Company (URENCO) will be the implementing agency. There will be three subsidiary loan agreements—between the Ministry of Finance (MOF) and (i) the Quang Nam PPC, (ii) the Quang Nam WSDC, and (iii) the Quang Binh PPC. Funds will be onlent in dollars at the same terms as the Asian Development Bank (ADB) ordinary capital resources (OCR) loan.¹Taxes and duties and land acquisition and resettlement costs will be the responsibility of the government.

A. Quang Nam Water Supply and Drainage Company

3. The Quang Nam WSDC will use the subloan proceeds to finance (i) the water supply improvement component (for its Hoi An division), and (ii) the Co Co urban development component. The Quang Nam WSDC operates 19 businesses in 12 subsidiary companies, and seven joint ventures. Water supply represented 55% of its total 2013 revenues. The audit

¹ The loan will have a 25.5-year term, including a 6.0-year grace period, and bear interest at the London interbank offered rate (LIBOR) plus 0.5% plus a maturity premium of 0.1% per year.

opinion of its 2013 financial statements was qualified.² Hence, the financial analysis undertaken for these components focused only on their specific cash flows. Both components are expected to generate revenues and achieve full cost recovery. The financial internal rate of return (FIRR) was computed for each based on the incremental cash flows in real terms and on an after-tax basis. Sensitivity analysis was undertaken in accordance with ADB's guidelines. Table 2 summarizes financial evaluation for the Co Co urban development component and the water supply improvement component.

Table 2: Financial Evaluation for the Co Co Urban Development Component and Water Supply Improvement Component

FNPV (VND Billion)	Base Case (%)	Capital O&M Revenue	FIRR (%) Sensitivity Analysis			WACC (%)	2016 Average Tariff (VND/m ³)
			+10	+10	-10		
			+10	+10	-10		
Hoi An Division Water Supply and Utility Efficiency Component							
194.4	8.78		7.30	6.49	9.07	5.37	0.65
Co Co Urban Development Component							
2.144	22.8		22.7	22.6	19.8	19.5	0.60

FIRR = financial internal rate of return, FNPV = financial net present value, O&M = operation and maintenance, VND = Viet Nam dong, WACC = weighted average cost of capital.

WACC = based on ADB's OCR LIBOR-based loan and counterpart fund for resettlement costs, taxes, and fees.

Source: Asian Development Bank.

4. **Co Co urban development.** The component is a mixed-use real estate development on a 140-hectare site along the Co Co River. The Quang Nam WSDC expects to develop the area's basic infrastructure and the commercial plots. The Quang Nam PPC will transfer the land to the Quang Nam WSDC at a low administrative price, and the Quang Nam WSDC will pay the Quang Nam PPC only as plots are sell or leased. The Quang Nam WSDC will sell the plots, and offer the plots for tourism as full concessions, at market-based prices. The surplus generated by its land development activities will be used to expand its water facilities. While cash flows were prepared for the component taking into account debt service on the debt for the component, recognizing that the predicted future price of land is speculative in nature and that the cost of land acquisition is a low administrative price (i.e., not market-determined), the financial analysis of this component was incorporated into the fiscal analysis of the Quang Nam PPC.

5. **Water supply improvement.** The investments will reduce nonrevenue water and enhance the system's resilience. A detailed review was undertaken of (i) Hoi An division's historical and projected financial statements (which are prepared on a cash flow basis); (ii) the projected impacts on its financial statements, including the incremental cash flows, based on the utility's revenue and cost estimates and taking into account debt service on the subloan; and (iii) key financial performance indicators.

Table 3: Quang Nam Water Supply and Drainage Company's Hoi An Division Financial Statement Analysis

Item (D million)	Actual		Projected					
	2012	2013 ^a	2014	2019	2024	2029	2034	2039
Revenues from water supply	10,692	-	12,820	53,022	85,047	149,145	215,390	310,630
Expenses (OPEX)	8,367	-	15,762	34,847	42,638	79,536	103,908	125,048

² Note that the qualified opinion flags that "accumulated depreciation has not been fully recognized in the statement of income [of the WSDC], including [D]1,192 million of Kham Duc water factory water project and [D]1,094 million of Competition Line Subproject at 3 towns: Vinh Dien, Phu Ninh, [and] Thanh My. Accordingly, the company's total profit before tax in the year 2013 is overstated at [D]2,286 million." Likewise, the financial results of the Hoi An division do not reflect depreciation; it summarizes operating results on a cash flow basis.

Item (D million)	Actual		Projected					
	2012	2013 ^a	2014	2019	2024	2029	2034	2039
Operating Profit	2,326	-	-2,942	18,175	42,409	69,609	111,483	185,582
Net Profit	2,154	-	-2,207	14,540	33,927	55,687	89,186	148,465
Operating Ratio (% OPEX / total)	78,25 %	-	123%	66%	50%	53%	48%	40%
Debt Service Coverage Ratio			17%	398%	757%	307%	476%	767%

^a No official financial statement of the Hoi An Division of the Quang Nam WSC.

D = dong, OPEX = operational expenditure.

Source: Asian Development Bank.

6. **Covenants.** The following covenants have been discussed with the government to address key considerations:

- (i) The Quang Nam PPC will commit to support water tariff reform and monitor the WSDC's compliance with the government decrees for water utilities³ and with all the financial and loan covenants under ADB's loan agreement, and to guarantee forex losses⁴ and provide subsidies to the WSDC as required.
- (ii) The Quang Nam WSDC will commit to (a) complying with the government decrees for water utilities, including Decree 117 which mandates full cost-recovery water tariffs and carving out nonwater businesses (footnote 2) to ring fence the Hoi An division's cash flows and ensure that appropriate major maintenance is undertaken; and (b) providing financial statements of the Hoi An division every 6 months.

7. **Affordability of Hoi An domestic water tariffs.** To achieve full cost recovery pursuant to Circular 75/2012, average water tariffs have to increase to D8,121 per cubic meter (m³) in 2017 and D10,555/m³ in 2020. For domestic water, the 2013 tariff of D5,500/m³ should increase to D6,861/m³ in 2020. The estimated monthly bill of a family would be D58,346 in 2015, or 2% of the average monthly household income, which is considered affordable. The proposed tariff increase is also less than the estimated incremental willingness to pay for improved water supply services based on the socioeconomic surveys. In fact, the proposed increase in tariffs between 2013 and 2020 represents a decrease in constant prices. Medium-size hotels are a sensitive user group in Hoi An. Based on the higher tariff for hotels of D12,628/m³ (assuming a tariff increase of 4% per year), the average monthly bill is projected to equal less than 1% of monthly income, which is considered affordable.

B. Overview of the Fiscal Analysis of the Provincial People's Committees

8. **Ministry of Finance's guidance.** Fiscal analysis of the provinces was performed to assess each PPC's capacity to service, without additional balancing transfers from the government, all the recurrent costs related to the components they were responsible for (i.e., debt service on their subloans, and operation and maintenance [O&M] of non-revenue-producing components). There are no formal guidelines for assessing a PPC's debt servicing capacity. The proposed methodology discussed with the MOF during project preparation, takes into account the government's documents such as the State Budget Law (2002) and PM Decision 59 (30 September 2010) regarding cost norms for current expenditures. The fiscal analysis included (i) historical analysis (5 years), based on planned and actual data as recent

³ The production, supply, and consumption of clean water is addressed by Decree 117 dated 7 November 2007; Decree 124 dated 28 December 2011, which amends and supplements some articles of Decree 117; and by a Joint Circular 75 dated 15 May 2012, which stipulates the guiding principles of tariff calculation.

⁴ The proceeds of ADB's loan will be onlent in dollars but the tariff methodology currently does not allow recovery of foreign exchange losses, which may impact the sustainability of the water utility.

as possible; (ii) projections to assess the PPC's capacity to cover such recurrent costs after the 6-year grace period; and (iii) key ratios showing budgetary and financial performance.

9. **Quang Nam province fiscal analysis.** Funds for the other components in the province will be onlent via the MOF to the Quang Nam PPC. Given the nature of these components (flood management and roads), no direct user charges are expected. Therefore, a fiscal analysis was undertaken to assess the Quang Nam PPC's ability to cover the recurrent costs of incremental debt service and O&M. The Quang Nam PPC should have the capacity to meet its obligations, including debt service and other recurrent costs, without additional balance transfers from the government. The repayment of principal beginning in 2021 is not expected to affect the Quang Nam PPC's key ratios, with fiscal revenues rising faster than the debt service. The Quang Nam PPC's capital expenditure should be closely monitored to ensure that other investment projects do not impair its ability to meet its obligations under the project. The Quang Nam PPC should also monitor operating expenses and encouraged to become self-financing by generating more local revenues and shared taxes collection (at least 20% of its capital expenditures) so as to achieve more flexibility and autonomy. The results are summarized in Table 4.

Table 4: Quang Nam Provincial People's Committee Fiscal Analysis (extract)

Item (VND billion)	Actual	Estimates		Planned			
	2012	2013	2014	2015	2020	2025	2030
Own Revenue (current)	5,449	4,052	4,741	5,452	11,25	24,68	54.098
Shared Taxes	3,894	4,824	5,31	5,867	9,497	15,81	24.449
Transfers from VNG (operating)	2,583	3,075	3,429	3,781	6,239	10.935	19.178
Others							
Total operating Revenue	12,22	11,95	13,48	15,1	26,99	51.414	100.653
Annual Growth (%)		-2%	13%	12%	13%	14%	15%
Own Operating Expenditures	2,265	2,261	2,483	2,761	4,507	7.744	13.334
Of which: Subcomponents –							
O&M/Subsidy						116	163
Transfers to Districts and Communes	7,867	8,051	9,017	9,919	16,41	28,93	50.979
Transfers to SOE							
Total OPEX	10,13	10,31	11,5	12,68	20,92	36.671	64.313
Annual Growth (%)		2	12	10	11	12	12
Operating Surplus (Deficit)	2,09	1,641	1,98	2,42	6,07	14.744	36.340
Debt Repayment	254	23	15	18	28	147	166
Existing and other new debt	254	23	15	18	28	28	28
ADB Loan						119	139
New Margin	1,836	1,618	1,966	2.403	6.042	14.597	36.173

ADB = Asian Development Bank, OPEX = operational expenditure, SOE = statement of expenditures, VND = Viet Nam dong.

Source: ADB.

10. **Quang Binh province fiscal analysis.** Funds for all Quang Binh components will be onlent via the MoO to the Quang Binh PPC, and Quang Binh URENCO will be the implementing agency. The fiscal analysis of the Quang Binh PPC takes into account (i) full debt service on its subloan, (ii) cash infusions required for the Bao Ninh UDA during the early years of the project, and (iii) projected subsidies for Quang Binh URENCO until revenues from tariffs can cover its O&M costs. The Quang Binh PPC should have the capacity to meet its obligations, including debt service, O&M of non-revenue-producing components, and subsidies for Quang Binh URENCO's wastewater activities, without additional balance transfers from the government. The repayment of the principal starting in 2021 is not expected to affect its key ratios, with fiscal revenues rising faster than the debt service. The results are summarized in Table 5.

Table 5: Quang Binh Provincial People's Committee Fiscal Analysis (extract)

Item (VND billion)	Actual	Estimates		Planned			
	2012	2013	2014	2015	2020	2025	2030
Own Revenue (current)	1,623	2,108	2,419	2,733	5,487	11,67	24.973
Shared Taxes	1,309	1,638	1,903	2,198	4,482	8,879	17.629
Transfers from VNG (operating)	2,221	2,382	2,619	2,853	4,607	8.047	14.084
Others							
Total operating revenue	5,816	6,128	6,941	7,804	14,58	28,6	56.685
Annual Growth (%)		5	13	12	13	14	15
Own Operating Expenditures	1,564	1,746	1,916	2,084	3,306	5,63	9.652
Of which: Bao Ninh deficit							
Transfers to Districts and Communes	4,381	4,819	5,301	5,778	9,39	16,55	29.163
Transfers to SOE	1,000	1,000	1,000	1,275	1,766	2,42	3,315
Of which: URENCO			1,006	1,030	1,411		
Total OPEX	5,946	6,567	7,864	7,864	12,7	22.180	38.819
Annual Growth (%)		10	10	9	11	12	12
Operating Surplus (Deficit)	-216	-438	-292	-60	-1.878	6.420	17.867
Debt Repayment	86	40	90	90	40	135	151
Existing and other new debt	86	40	90	90	40	40	40
ADB Loan						95	111
New Margin	-216	-479	-367	-150	1.839	6.285	17.716

ADB = Asian Development Bank, OPEX – operational expenditure, SOE = statement of expenditures, URENCO = urban environment company, VND = Viet Nam dong.

Source: ADB.

11. **Bao Ninh urban development.** The component is a new real estate development. Cash flows were prepared for the component, taking into account debt service on the subloan. Because of the large capital investments during the first 2 years of the project, cash infusions from the Quang Binh PPC are expected, after which strong profits and full cost recovery are expected from the project because of the difference between the low administrative price and projected market prices, and the long tenor of the ADB loan. However, results are highly sensitive to the rate of commercialization and, considering the large area involved, it is highly recommended that development be phased.

12. **Dong Hoi wastewater management.** Quang Binh URENCO is expected to connect an additional 7,000 households with the wastewater system. Quang Binh URENCO is expected to partially cover its O&M through wastewater tariffs. In 2014, the Quang Binh PPC decided to increase tariffs based on advice of consultants to reduce the subsidy from the PPC (Decision No.14/2014/QD-UBND). The Quang Binh PPC is expected to ensure that it covers any shortfalls experienced by Quang Binh URENCO.

13. **Affordability of Quang Binh wastewater tariffs.** Quang Binh URENCO will partially cover O&M (without depreciation recovery) for the wastewater management component. The company's financial analysis included (i) a review of projected O&M for its entire wastewater system, (ii) the tariffs that it should charge in order to be able to cover such costs and ensure sustainability, and (iii) wastewater tariff affordability. To achieve O&M cost recovery, average wastewater tariffs must be increased to D3,293/m³ in 2015, with domestic tariffs increasing to D2,394/m³ (from D830/m³ in 2013). The Quang Binh PPC raised tariffs in 2014 to increase O&M cost recovery; its average wastewater tariffs are D2,453/m³ in 2015, D2,548/m³ in 2016, and D2,684/m³ in 2017. At the 2015 tariff, the average household wastewater charge equates to 1.26% of monthly income. The Quang Binh PPC will be asked to commit to support wastewater tariff reform and cover all Quang Binh URENCO's cash shortfalls until full O&M recovery is achieved.