



# Report and Recommendation of the President to the Board of Directors

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Project Number: 43237-013  
November 2015

## Proposed Loan and Administration of Grant Socialist Republic of Viet Nam: Urban Environment and Climate Change Adaptation Project

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 26 October 2015)

Currency unit	–	dong (D)
D1.00	=	\$0.0000448
\$1.00	=	D22,313

## ABBREVIATIONS

ADB	–	Asian Development Bank
EIRR	–	economic internal rate of return
EMP	–	environment management plans
ENPV	–	economic net present value
GDP	–	gross domestic product
O&M	–	operation and maintenance
PAM	–	project administration manual
PMU	–	project management unit
PPC	–	Provincial People's Committee
SEDP	–	Socio-Economic Development Plan
UNESCO	–	United Nations Educational, Scientific and Cultural Organization
URENCO	–	urban environment company
WSDC	–	water supply and drainage joint stock company

## NOTE

In this report, "\$" refers to US dollars.

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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 43237-013</b>	
<b>Project Name</b>	Urban Environment and Climate Change Adaptation Project	<b>Department /Division</b>	SERD/SEUW
<b>Country Borrower</b>	Viet Nam, Socialist Republic of Government of Viet Nam	<b>Executing Agency</b>	Provincial People's Committee of Quang Nam Prvnce, Provincial People's Committee of QuangBinhProvince
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Water and other urban infrastructure and services</b>	Other urban services		25.00
	Urban policy, institutional and capacity development		25.00
	Urban sewerage		25.00
	Urban water supply		25.00
	<b>Total</b>		<b>100.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Adaptation (\$ million)	9.40
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Climate Change impact on the Project	High
	Urban environmental improvement		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas		
Partnerships (PAR)	Bilateral institutions (not client government) Implementation		
Private sector development (PSD)	Public sector goods and services essential for private sector development		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Urban	High
<b>6. Risk Categorization:</b>	Complex		
<b>7. Safeguard Categorization</b>	Environment: B Involuntary Resettlement: A Indigenous Peoples: C		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>100.00</b>	
Sovereign Project loan: Ordinary capital resources		100.00	
<b>Cofinancing</b>		<b>4.00</b>	
Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility		4.00	
<b>Counterpart</b>		<b>40.16</b>	
Government		40.16	
<b>Total</b>		<b>144.16</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		No	
Use of country public financial management systems		No	

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, and (ii) the proposed administration of a grant to be provided by the Urban Climate Change Resilience Trust Fund<sup>1</sup> under the Urban Financing Partnership Facility, both to the Socialist Republic of Viet Nam for the Urban Environment and Climate Change Adaptation Project.<sup>2</sup>

2. The project will improve urban environmental conditions in Dong Hoi and Hoi An cities through capacity development, and the construction and upgrading of infrastructure facilities. The project will adopt climate-proof infrastructure designs, and a combination of structural and nonstructural measures that promote adaptation to climate change.<sup>3</sup>

## II. THE PROJECT

### A. Rationale

3. **Urban environmental issues.** The main challenges facing cities in Viet Nam arise from the lack of infrastructure investment and the limited ability of local governments to provide reliable and affordable urban services. There are no clear linkages between the local socioeconomic development plan, spatial plan, and urban subsector master plans, while the inability to recover the cost of providing municipal services causes poor operation and maintenance (O&M) of urban infrastructure. This results in missing links in the road network, obsolete water supply systems and high water losses, floods and clogged drains, and uncontrolled disposal of untreated waste, with the result that cities are less competitive and livable. Lack of infrastructure and limited capacity to manage urban services discourage external investments, which are critical to socioeconomic development and growth.

4. **Climate change issues.** According to the Intergovernmental Panel on Climate Change, since the mid-1960s, the average sea level has risen 20 centimeters and the average temperature has increased 0.5–0.7 degrees in Viet Nam. Sea level rise intensifies flood damage; during 2001–2010, natural disasters have resulted in damage equal to about 1.5% of annual gross domestic product (GDP). Sea level rise and potential changes in storm intensity are likely to increase the unpredictability of (and most likely exacerbate) natural disasters. As a result of climate change, Viet Nam's yearly mean temperature is expected to rise 2–3 degrees Celsius, with sea level 75–100 centimeters higher than 1980–1999 levels, at the end of this century. It is estimated that 10%–12% of Viet Nam's population will be directly affected and the country will lose around 10% of GDP.

5. **Importance of secondary cities development.** Metropolitan areas that receive large inflows of migrants are becoming more congested and experiencing increasingly serious social and environmental problems. At the same time, secondary cities are stagnating. According to the government's General Statistics Office, the urban population in five municipalities accounts for over 40% of the country's total urban population of nearly 30 million, while over 70% of secondary cities have a population under 300,000.<sup>4</sup> If the trend continues, the resulting spatial and economic

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<sup>1</sup> Financing partners: the Rockefeller Foundation and the governments of the United Kingdom and the United States.

<sup>2</sup> The design and monitoring framework is in Appendix 1.

<sup>3</sup> The Asian Development Bank provided project preparatory technical assistance for Preparing the Urban Environment and Climate Change Adaptation Project (TA8171-VIE).

<sup>4</sup> The five centrally-controlled cities which stand on the same administrative level as provinces are Can Tho, Da Nang, Ha Noi, Hai Phong, and Ho Chi Minh City.

disparities will further constrain urban development, social stability, and national economic development. In line with the government's decentralization policy, infrastructure investments in secondary cities will help attract or retain residents, possibly reducing migration to large metropolitan cities. Steering growth away from metropolitan areas and toward secondary cities would result in more balanced regional development.

6. **Choice of project cities.** Dong Hoi city in Quang Binh province and Hoi An city in Quang Nam province have been identified as project cities. Both are located in the North Central and South Central Coastal regions, which historically have been one of the most disaster-prone areas in Viet Nam, threatened repeatedly by floods and typhoons.

7. Dong Hoi (the capital of Quang Binh province) had a population of 113,900 in 2010, and an average annual growth rate of about 1.8% during 2005–2010. The city is located in a narrow coastal strip 49 kilometers from the border with the Lao People's Democratic Republic. The city is an important tourism center, with long beaches and the Phong Nha and Ke Bang caves, which were listed as United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage sites in 2003. Dong Hoi was heavily bombed in 1972 and almost all its infrastructure destroyed. Reconstruction has been slow because of financial constraints. The local climate change resilience action plan was developed with support from the World Bank to improve resilience to the potential effects of climate change and natural disasters. A set of short- to long-term structural and nonstructural measures were designed under the action plan.

8. Hoi An has 92,000 inhabitants, and an average annual population growth rate of about 2.5%. Hoi An is a well-preserved example of a Southeast Asian trading port from the 15th to 19th century, and a UNESCO World Heritage site. The economy is dominated by the service sector, which accounted for over 60% of the city's GDP in 2011. Annual GDP growth in 2010–2013 was over 11%. Tourism has brought important economic benefits, but also negative environmental impacts such as increased amounts of garbage and wastewater, and further growth is considered unsustainable without significant environmental investments. The climate change adaptive ecocity development concept aims to increase the city's attraction as a tourist destination and transform Hoi An into a green, clean, and safe city. The key strategy is to develop climate change-resilient spatial plans and infrastructure designs that will mitigate damage from natural disasters and protect the environment.

9. **Aligned with related policies and strategies.** The project is in line with the government's Socio-Economic Development Plan (SEDP) 2011–2015 aims to create the foundation for Viet Nam to become an industrialized country by 2020.<sup>5</sup> The SEDP emphasizes the importance of environmental protection, natural disaster prevention, and climate change adaptation through (i) improved land use planning and management; (ii) the establishment of monitoring, forecasting, and warning systems for natural disasters; and (iii) increased public awareness of environmental protection and climate change adaptation. Development of secondary cities is also a priority area of the SEDP—secondary cities are expected to be the regional centers for social and economic development through investments in basic urban services. The project is also in line with the country partnership strategy for Viet Nam of the Asian Development Bank's (ADB) that supports assistance to help cities attract business and investment by defining their development vision and identifying their advantages as new growth hubs.<sup>6</sup> It encourages comprehensive socioeconomic development in secondary cities,

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<sup>5</sup> SEDP 2011–2015 was developed to realize the long-term development objectives of the Socio-Economic Development Strategy for 2011–2020.

<sup>6</sup> ADB. 2012. *Country Partnership Strategy: Viet Nam, 2012–2015*. Manila.

particularly border cities and those along Greater Mekong Subregion corridors, as well as coastal cities that need to prepare for the possible early impacts of climate change. The proposed project will support ADB's urban sector assessment, strategy, and road map for Viet Nam that seeks to develop secondary cities through a focus on (i) assisting local governments in strategic city development planning, (ii) investing in the upgrade and expansion of priority urban infrastructure, and (iii) establishing clearly defined institutional arrangements and building necessary local capacities. The proposed project is aligned with ADB's urban operational plan 2012–2020,<sup>7</sup> which seeks to catalyze a new form of climate-friendly, climate-resilient, inclusive, competitive, and environmentally sustainable urban development by improving urban systems, making them financially sustainable, and maximizing the urban contribution to development.

10. **Lessons.** The completion reports of previous urban development and water projects in Viet Nam have provided the following lessons: (i) implement advance actions and apply project readiness filters to minimize start-up delays, particularly recruitment of consultants; (ii) implement tariff reform to recover O&M costs and ensure the sustainability of project facilities; and (iii) promote strong ownership and involvement of the provincial government agencies in project design and implementation.<sup>8</sup> These lessons were studied during project preparation and incorporated in the project design.

11. **Special features.** The project is the first urban development project for provincial governments that uses ADB loan funds relet from the central government, and features (i) designs that incorporate climate-proofing, such as protection of water resources from salinity intrusion, and creation of green riparian buffer zones to retain water during floods; and (ii) complementary structural and nonstructural measures, with the latter including a flood forecasting and warning system, and zoning and vegetation planting to protect the coastal dune complex. In addition, at the government's request, ADB conducted a fiscal analysis of the project provinces to help the Ministry of Finance appraise their financial capacity; this approach can be applied to future projects in Viet Nam that involve relending to the provinces.

## **B. Impact and Outcome**

12. The project's expected impact will be improved urban environments in Dong Hoi and Hoi An. The outcome of the project will be greater access to improved urban services in Dong Hoi and Hoi An.

## **C. Outputs**

13. The outputs will include: (i) new and improved climate change-resilient urban infrastructure in Dong Hoi, (ii) new and improved climate change-resilient urban infrastructure in Hoi An, and (iii) improved competency in urban environmental management and climate change adaptation. Output 1 will comprise (i) a Bao Ninh urban development component that will help develop a new urban area in the Bao Ninh peninsula by creating a climate-change resilient urban plan, constructing basic infrastructure, and protecting the coastal dune complex from erosion; and (ii) a wastewater management component that will construct tertiary sewerage networks and household connections to complement a World Bank-funded project that is

<sup>7</sup> ADB. 2013. *Urban Operational Plan, 2012–2020*. Manila.

<sup>8</sup> ADB. 2009. *Sector Assistance Program Evaluation: Urban Services and Water Supply and Sanitation Sector in Viet Nam*. Manila; ADB. 2011. *Completion Report: Third Provincial Towns Water Supply and Sanitation Project in Viet Nam*. Manila; and ADB. 2013. *Completion Report: Central Region Urban Environmental Improvement Project in Viet Nam*. Manila.

constructing a wastewater treatment plant and primary and secondary networks.<sup>9</sup> Output 2 will support (i) a Co Co urban development component that will help develop a new urban area along the Co Co River by developing a climate change-resilient urban plan, constructing basic infrastructure, and constructing an access road; (ii) an integrated flood management component through increasing the capacity of flood detention lake, establishing a flood forecast and warning system, and creating a flood evacuation route; and (iii) a water supply improvement component that will increase the storage capacity of the existing reservoir, protect it against salinity intrusion, and reduce nonrevenue water. Output 3 will provide (i) project implementation support, (ii) capacity development in urban management for the executing and implementing agencies, and (iii) awareness programs for the city residents on health, environment, and climate change impacts.

#### D. Investment and Financing Plans

14. The project is estimated to cost \$144.16 million (Table 1).

**Table 1: Project Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. New and improved climate change-resilient urban infrastructure in Dong Hoi	32.14
2. New and improved climate change-resilient urban infrastructure in Hoi An	82.79
3. Improved competencies in urban environmental management and climate change adaptation	5.31
<b>Subtotal (A)</b>	<b>120.24</b>
<b>B. Contingencies<sup>c</sup></b>	<b>17.42</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>6.49</b>
<b>Total (A+B+C)</b>	<b>144.16</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes taxes and duties of \$10.24 million; \$10.05 million of taxes and duties will be paid by the government through a cash contribution, with the remaining \$190,000 to be financed from UCCRTF grant resources, because the amount is within the reasonable threshold, does not represent an excessive share of the project cost, the taxes and duties apply only to Asian Development Bank (ADB)-financed expenditures, and the financing of the taxes and duties is material and relevant to the success of the project.

<sup>b</sup> In mid-2015 prices.

<sup>c</sup> Physical contingencies computed at 15% for land acquisition and resettlement in Hoi An; 11% for land acquisition and resettlement in Dong Hoi; 10% for civil works, field research and development, training, surveys, and studies; and 5% for grant-aided studies. Price contingencies computed at an average of 1.0% in 2015, 1.4% in 2016–2018, and 1.5% thereafter on foreign exchange costs, and 8.0% in 2015 and 7.5% thereafter on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for the ADB loan has been computed at the 5-year fixed swap rate for London interbank offered rate (LIBOR) for US dollars plus a spread of 0.5%, and a maturity premium in accordance with the maturity-based loan pricing. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

15. The government has requested a loan of \$100 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25.5-year term, including a grace period of 6 years, straight-line method, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, the interest and other charges during construction to be capitalized in the loan,

<sup>9</sup> The World Bank approved a loan in the amount equivalent to \$124.7 million in December 2006 and additional financing in the amount equivalent to \$65.3 million in February 2011.



and such other terms and conditions set forth in the draft loan and project agreements. Based on this, the average loan maturity is 16 years and the maturity premium payable to ADB is 0.1% per annum. The Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility will provide grant cofinancing equivalent to \$4 million on a cost-sharing basis to finance outputs 1.1c and 2.2b. The funds will be administered by ADB.<sup>10</sup>

16. The financing plan is in Table 2.

**Table 2: Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank	100.00	69.4
Urban Climate Change Resilience Trust Fund <sup>a</sup> under the Urban Financing Partnership Facility	4.00	2.8
Government of Viet Nam	40.16	27.9
<b>Total</b>	<b>144.16</b>	<b>100.0</b>

<sup>a</sup> Financing partners: the Rockefeller Foundation and the governments of the United Kingdom and the United States, Administered by the Asian Development Bank.  
Source: Asian Development Bank estimates.

17. The borrower will be the Socialist Republic of Viet Nam, which will relend the loan proceeds to (i) the Quang Binh Provincial People's Committee (PPC) for outputs 1.1a–b and 1.2; (ii) Quang Nam PPC for outputs 2.1d and 2.2a and 2.2c; and (iii) Quang Nam Water Supply and Drainage Joint Stock Company (WSDC) for outputs 2.1a–c and 2.3. All relending will carry the same terms and conditions as ADB's ordinary capital resources loan, including the foreign exchange and interest rate variation risks.

## **E. Implementation Arrangements**

18. The Quang Binh PPC and the Quang Nam PPC will be the executing agencies. Both PPCs have experience in implementing projects funded by development partners. The Quang Binh Urban Environment Company (URENCO) and the Quang Nam WSDC will be the implementing agencies. The project management units (PMUs) will be established under the Quang Binh URENCO and the Quang Nam WSDC with adequate office space and a sufficient number of qualified staff. Outputs 1 and 2 will be implemented independently by the Quang Binh URENCO and Quang Nam WSDC.

19. The implementation arrangements are summarized in Table 3 and described in the project administration manual (PAM).<sup>11</sup>

**Table 3: Implementation Arrangements**

<b>Aspects</b>	<b>Arrangements</b>
Implementation period	December 2015–December 2022
Estimated completion date	31 December 2022 (loan and grant closing date: 30 June 2023)
<b>Management</b>	
(i) Oversight body	No independent oversight body will be established.
(ii) Executing agencies	Quang Binh PPC and Quang Nam PPC (lead coordinator)
(iii) Key implementing agencies	Quang Binh URENCO and Quang Nam WSDC
(iv) Implementation unit	Two PMUs have been established, one at Quang Binh URENCO

<sup>10</sup> Local transportation and insurance charges may be financed under the loan and grant.

<sup>11</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Aspects	Arrangements		
	for Dong Hoi and the other at Quang Nam WSDC for Hoi An.		
Procurement <sup>a</sup>	International competitive bidding	1 contract (works)	\$23.1 million
	National competitive bidding	18 contracts (works) 3 contracts (goods)	\$57.4 million \$1.67 million
Consulting services <sup>a</sup>	Quality- and cost-based selection	121 person-months (international)	\$7.6 million
	Least-cost selection	374 person-months (national)	\$0.7 million
	Consultant's qualification selection	102 person-months (national) 14 person-months (national)	\$0.1 million
	Individual consultant	12 person-months (international) 21 person-months (national)	\$0.5 million
Advance contracting	Preparation of detailed engineering designs has been initiated using the counterpart funds. The PMUs will start land acquisition and resettlement, and initiate grievance redress mechanisms. A national consultant has been engaged under the project preparatory technical assistance to help recruit consultants.		
Disbursement	The loan and grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, PMU = project management unit, PPC = Provincial People's Committee, URENCO = Urban Environment Company, WSDC = Water Supply and Drainage Joint Stock Company.

<sup>a</sup> Goods and works, and consulting services to be financed or administered by ADB under the project will be procured following ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

Source: Asian Development Bank.

### III. DUE DILIGENCE

#### A. Technical

20. The project facilities have been designed using demand projections that are based on realistic population projections using current urban growth rates. Alternative technical options were analyzed for each project facility and the optimum design solutions identified. In reviewing the alternatives, consideration was given to improvement of overall project implementation efficiency, cost effectiveness (covering both capital and operating costs), use of appropriate technology within the capacity of local government agencies, and reduction of negative social and environmental impacts. Technical feasibility and environmental soundness have been confirmed for the dredging of Phap Bao Lake (output 2.2a) and Lai Nghi reservoir (output 2.3a). The designs and the O&M plan have been prepared based on appropriate standards to ensure sustainability.

#### B. Economic and Financial

21. **Economic analysis.** An economic analysis was conducted of the individual outputs as well as the overall project, including the cost of improved urban environmental management and climate change adaptation, and confirms that both Dong Hoi and Hoi An outputs, and the overall

project are economically viable.<sup>12</sup> The economic internal rate of return (EIRR) of the investment in Dong Hoi is estimated at 18.4%, with an economic net present value (ENPV) at a 12% discount rate of \$17.5 million, while the EIRR of the investment in Hoi An is 13.2% with an ENPV of \$7.8 million. The overall project EIRR is estimated at 14.8% with an ENPV of \$27.8 million. Sensitivity tests indicate that the overall project is sensitive to an increase in cost or decrease in benefits, and to a delay in benefits. Under the most adverse condition (a 10% cost increase combined with a 10% benefit decrease), the EIRR is reduced to 12.5%.

22. **Financial analysis.** Fiscal analysis of Quang Binh and Quang Nam PPCs was undertaken for all components in Quang Binh and for the Co Co River and flood management and coastal protection components in Quang Nam.<sup>13</sup> For each PPC, recurrent costs, including debt service and operating expenses, were projected, and the fiscal performance during 2009–2013 analyzed to assess the PPC’s capacity to cover these costs. Both PPCs should have the capacity to meet their obligations without additional balance transfers from the government, although capital expenditure spending should be closely monitored to ensure other investment projects do not impair their ability to meet recurrent costs under the project. A cost–benefit analysis was undertaken to assess the financial viability of the water supply improvement component, which is being implemented by the Quang Nam WSDC and intended to fully recover all costs from water revenues. The financial internal rate of return of this component is 11.9%, which is in excess of the weighted average cost of capital of 0.7%.

### C. Governance

23. The risk rating for financial management is medium based on the financial management assessment, which focused on accounting and auditing procedures and staff expertise. The existing financial information system (i.e., accounting, reporting, and internal control system) is complete and applicable to domestic construction entities. The Quang Binh URENCO and Quang Nam WSDC have experience in infrastructure projects financed by both domestic and international funds. Quang Binh URENCO and Quang Nam WSDC have not implemented an ADB-funded project, while Quang Binh PPC and Quang Nam PPC have done so. Training on ADB disbursement procedures and advanced financial management will be conducted to ensure success of project implementation.

24. A procurement capacity assessment of the executing and implementing agencies has been undertaken in Dong Hoi and Hoi An. Both implementing agencies (i) have experience in undertaking large development partner-funded projects, including some using international competitive bidding procedures; and (ii) lack extensive experience with ADB procurement and the operation of imprest accounts, with disbursement often being slow in comparison with initial estimates. Based on the assessment, the procurement plan was prepared (including the thresholds and review procedures; contract packages for goods, works, and consulting services; and national competitive bidding guidelines) and included in the PAM (footnote 11). Training on ADB’s procurement requirements will be conducted as part of the project administration and implementation training under output 3.

25. ADB’s Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the Quang Binh and Quang Nam PPCs, and relevant sections will be included in all documents and contracts relating to procurement. The specific policy requirements and supplementary measures are described in the PAM (footnote 11).

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<sup>12</sup> Economic Analysis (accessible from the list of linked documents in Appendix 2).

<sup>13</sup> Financial Analysis (accessible from the list of linked documents in Appendix 2).

## D. Poverty and Social

26. A social, poverty, and gender analysis was undertaken in accordance with ADB guidelines. Information collected contributed to the project design, ensured social inclusion of the poor and economically vulnerable, and supported the need for measures to mitigate the impacts of climate change on the urban and peri-urban populations. The project is classified as general intervention. The project will benefit a combined population of about 206,000 residents in Dong Hoi and Hoi An, including about 1,000 poor households, half of which are headed by women. Poor households that cannot afford to connect to a wastewater system will be assisted through a revolving fund managed by the Women's Union in Dong Hoi.<sup>14</sup>

27. The project is categorized as effective gender mainstreaming. The gender action plan focuses on increasing women's participation in decision making at all levels of urban governance and service provision through female participation in project capacity development plans and training sessions.<sup>15</sup> Capacity development will be developed based on gender equity, with women comprising at least 30% of all session participants. The project will support female government staff and women's unions to develop their knowledge of climate change impacts and adaptation measures.

## E. Safeguards

28. **Environment.** The project is classified as category B in accordance with ADB's Safeguard Policy Statement (2009). The proposed project is not expected to cause irreversible adverse environmental impacts. Two initial environmental examinations were conducted for Dong Hoi and Hoi An. Mitigation measures for identified impacts are included in the environment management plans (EMPs).<sup>16</sup> In addition, the potential impacts of climate change and natural hazards are recommended for integration into the detailed engineering design. The initial environmental examinations were approved by the Quang Binh PPC for Dong Hoi and the Ministry of Natural Resources and Environment for Hoi An (because of the city's status as a UNESCO World Heritage site). The finalized EMPs based on the detailed engineering design and cleared by ADB will form part of the bidding documents. EMP implementation will be ensured by a designated environment officer in each PMU. Effective environmental monitoring at all stages of project implementation will be ensured. Stakeholder consultations were conducted through formal and informal focus group discussions, and grievance redress mechanisms have also been established. In compliance with ADB's information disclosure and consultation requirements, the safeguard documents have been posted on ADB's website.

29. **Involuntary resettlement.** The safeguard category for involuntary resettlement is A, in accordance with ADB's Safeguard Policy Statement. Two resettlement plans, one each for Dong Hoi and Hoi An, have been prepared for the components with land acquisition and resettlement impacts.<sup>17</sup> For Dong Hoi, 173,940 square meters of land will be permanently acquired, and 375 households with 1,550 persons will be affected. For Hoi An, 711,374 square meters of land will be permanently acquired, and 645 households with 2,580 persons will be affected. In combination, there will be 539 severely affected households (with approximately 2,264 affected

<sup>14</sup> The revolving fund is regularly audited by the Quang Binh PPC financed under the World Bank funded project (footnote 9).

<sup>15</sup> Gender Action Plan (accessible from the list of linked documents in Appendix 2).

<sup>16</sup> Initial Environmental Examination: Dong Hoi City; Initial Environmental Examination: Hoi An City (accessible from the list of linked documents in Appendix 2).

<sup>17</sup> Resettlement Plan: Dong Hoi City; Resettlement Plan: Hoi An City (accessible from the list of linked documents in Appendix 2).

persons). In Dong Hai, 52 affected households (approximately 218 affected persons) will be required to relocate. In Hoi An, 311 affected households (approximately 1,306 affected persons) are estimated to lose more than 10% of their total productive land holding, and 176 affected households (approximately 739 affected persons) will be required to relocate. All other impacts are partial and temporary. The cost of land acquisition and resettlement that will be financed by the government is estimated to be about \$27.8 million, which includes base costs, allowances, administration, and contingencies. A cutoff date with extensive stakeholder consultation and participation has been established and will be officially announced by the PPCs after the project has been approved. Project information has been disclosed to affected persons throughout project preparation. The public information booklet, which was distributed to affected persons during project preparation, will be updated and redistributed to affected households during the detailed measurement survey.

30. Resettlement documents have been prepared in consultation with local communities and are in accordance with ADB's Safeguard Policy Statement and the government's laws and regulations. The documents have been endorsed, approved, and posted on the ADB website. A grievance redress mechanism will help facilitate resolution of complaints on resettlement, the environment, and other project-related issues. The resettlement plans will be updated and disclosed after detailed engineering design, and cleared by ADB prior to contract awards. Effective monitoring at all stages of project implementation will be ensured.

31. **Indigenous peoples.** Indigenous people safeguards are not triggered by any project components in Dong Hoi or Hoi An, and the safeguard category for indigenous peoples is C, in accordance with the requirements outlined in ADB's Safeguard Policy Statement; hence no separate indigenous peoples plans are required to be prepared.

## F. Risks and Mitigating Measures

32. The overall assessment of the project risks is rated medium. Both implementing agencies have experience in infrastructure projects financed by domestic and international funds although they have not implemented an ADB-funded project. The integrated benefits and impacts are expected to outweigh the costs. Major risks and mitigation measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>18</sup>

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigating Measures</b>
Stakeholders in the river basins do not cooperate to operationalize the flood warning and management system in Hoi An.	As part of the project, basin-level workshops will be held to ensure involvement of stakeholders in and their commitment to the design and implementation of the flood warning and management system.
Individual developers in the Bao Ninh new urban area do not follow the measures to protect the coastal dune complex to be developed under the project.	Strict adherence to dune protection measures will be ensured through a review of developers' EIA reports by the PMU, supported by the project implementation support consultant. DONRE will ensure that all recommendations are included in the developers' EIA reports, and will not grant licenses to operate to such developers in the Bao Ninh new urban area.

<sup>18</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Risks	Mitigating Measures
Inadequate subsidies are provided for wastewater management in Dong Hoi and water supply in Hoi An.	Required subsidies were estimated under the project preparatory technical assistance. The project implementation support consultant will assist the PPCs in revising estimates when commissioning of project facilities begins.

DONRE = Department of Natural Resources and Environment, EIA = environmental impact assessment, PMU = project management unit, PPC = Provincial People’s Committee.  
 Source: Asian Development Bank.

**IV. ASSURANCES AND CONDITIONS**

33. The government has assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

34. The government has agreed with ADB on certain covenants for the project, which are set forth in the loan, grant, and project agreements.

35. The government has agreed that no withdrawals will be made from the loan and grant accounts until

- (i) the Quang Binh PPC sets up a PMU and enters into a subsidiary loan agreement with the government, upon terms and conditions satisfactory to ADB; and
- (ii) the Quang Nam PPC sets up a PMU and enters into a subsidiary loan agreement with the government, upon terms and conditions satisfactory to ADB; and the Quang Nam WSDC enters into a subsidiary loan agreement with the government, upon terms and conditions satisfactory to ADB.

**V. RECOMMENDATION**

36. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve

- (i) the loan of \$100,000,000 to the Socialist Republic of Viet Nam for the Urban Environment and Climate Change Adaptation Project, from ADB’s ordinary capital resources, with interest to be determined in accordance with ADB’s London interbank offered rate (LIBOR)-based lending facility; for a term of 25.5 years, including a grace period of 6 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board; and
- (ii) the administration by ADB of the grant not exceeding the equivalent of \$4,000,000 to the Socialist Republic of Viet Nam for the Urban Environment and Climate Change Adaptation Project, to be provided by the Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility.

Stephen P. Groff  
 Vice-President

## DESIGN AND MONITORING FRAMEWORK

<b>Impacts the project is aligned with:</b>			
Urban environment in Dong Hoi and Hoi An improved (Socio-economic Development Plan 2011–2015) <sup>a</sup>			
<b>Project Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b>  Greater access to improved urban services in Dong Hoi and Hoi An	By 2023: a. Dong Hoi: New urban area in Bao Ninh peninsula developed, serving 2,900 new households b. Dong Hoi: Number of households served by new and improved wastewater collection and treatment increased to 7,000 (2014 baseline: 1,700) c. Hoi An: New urban areas along the Co Co River developed, serving 2,000 new households d. Hoi An: Damage from coastal flooding reduced by \$2 million per year (2009–2013 average: \$2.5 million) benefiting 15,600 urban households e. Hoi An: Cost over revenue ratio of water supply improved to 0.6 (2014 baseline: 0.9)	a. Quang Binh PPC annual report b. Quang Binh URENCO annual report c–d. Quang Nam PPC annual report e. Quang Nam WSDC annual report	Inadequate subsidies are provided for wastewater and water supply before achieving cost recovery
<b>Outputs</b>  1. New and improved climate change–resilient urban infrastructure in Dong Hoi	By 2022: (2014 baselines: 0 for 1.1a–c.) 1.1 New urban area in Bao Ninh peninsula developed including: 1.1a. New urban area development plan is refined, incorporating climate change resilience considerations 1.1b. 5.8 km of connecting roads with sewerage and drainage networks are constructed 1.1c. Measures to protect the coastal dune complex from erosion are developed and implemented 1.1d. At least 20% of unskilled laborers employed in project construction are women who receive equal pay, have a safe work environment, and separate and proper toilet facilities (2014 baseline: data NA)	1.1a and c. Quang Binh PPC annual report 1.1b and d. Quang Binh URENCO construction report	Individual developers in the Bao Ninh new urban area do not follow measures to protect the coastal dune complex to be developed under the project
	By 2022: (2014 baselines: 0 for 1.2a–b) 1.2 Wastewater management improved including: 1.2a. 25 km of tertiary sewerage networks are constructed 1.2b. 10 combined sewer overflows and 17 pumping stations with telemetry systems are constructed 1.2c. 7,000 wastewater connections are installed, including 1,500 households supported by the revolving fund (2014 baselines: NA)	1.2a–b Quang Binh URENCO construction report 1.2c Quang Binh URENCO annual report	

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
2. New and improved climate change-resilient urban infrastructure in Hoi An	<p>By 2022: (2014 baselines: 0 for 2.1a–d.)</p> <p>2.1 New urban area along the Co Co River developed including:</p> <p>2.1a. New urban area development plan is refined, incorporating climate change resilience consideration</p> <p>2.1b. 30 km of connecting roads with sewerage and drainage networks are constructed</p> <p>2.1c. 2,000 water supply and wastewater connections are installed</p> <p>2.1d. 4.8 km access road to connect with the Cua Dai Bridge is constructed</p> <p>2.1e. At least 25% of unskilled laborers employed in project construction are women who receive equal pay, have a safe work environment, and separate and proper toilet facilities (2014 baseline: data NA)</p>	2.1 Quang Nam WSDC construction report	Stakeholders in the river basins do not cooperate to operationalize the flood warning and management system in Hoi An
	<p>By 2022: (2014 baselines: 0)</p> <p>2.2 Integrated flood management established including:</p> <p>2.2a. Detention capacity of Phap Bao Lake is increased by 80,000 m<sup>3</sup> through dredging</p> <p>2.2b. Flood forecast and warning system covering Vu Gia–Thu Bon river basin is established</p> <p>2.2c. 5.4 km of Provincial Road 608 is elevated to create a flood evacuation route</p>	2.2 Quang Nam WSDC construction report	
	<p>By 2022: (2014 baselines: 0)</p> <p>2.3 Water supply improved including:</p> <p>2.3a. Storage capacity of Lai Nghi reservoir is increased by 530,000 m<sup>3</sup> through dredging</p> <p>2.3b. New water intake is constructed for Lai Nghi reservoir for protection from salinity intrusion</p> <p>2.3c. Management information system is introduced for nonrevenue water reduction</p>	2.3 Quang Nam WSDC construction report	
3. Improved competencies in urban environmental management and climate change adaptation	<p>By 2022: (2014 baselines: NA)</p> <p>3a. Knowledge and skills of at least 40 PPC staff are strengthened in urban management, environmental protection, and climate change adaptation (at least 30% of participants are women)</p> <p>3b. At least 20 PMU staff receive project administration and implementation training, particularly on financial management, procurement, safeguards, gender, and monitoring and reporting (at least 30% of participants are women)</p>	3a–b. Quang Binh URENCO and Quang Nam WSDC training program report	Staff assigned to project by government are frequently rotated



Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	3c. Programs to raise awareness of environmental protection and public health are conducted (with equitable participation by males and females)	3c. Quang Binh URENCO and Quang Nam WSDC awareness program report	
<p><b>Key Activities with Milestones</b></p> <p><b>1. New and improved climate change-resilient urban infrastructure in Dong Hoi</b></p> <p>1.1 New urban area in Bao Ninh peninsula developed</p> <p>1.2 Wastewater management improved</p> <p>1.1.1, 1.2.1 Complete detailed designs and update EMPs and resettlement plans by 2017</p> <p>1.1.2, 1.2.2 Complete land acquisition and resettlement activities by 2019</p> <p>1.1.3, 1.2.3 Complete procurement of works and goods by 2020</p> <p>1.1.4, 1.2.4 Complete civil works and equipment installation by 2022</p> <p>1.1.5 Establish and implement coastal and dune protection measures by 2022</p> <p><b>2. New and improved climate change-resilient urban infrastructure in Hoi An</b></p> <p>2.1 New urban area along the Co Co River developed</p> <p>2.2 Integrated flood management established</p> <p>2.3 Water supply improved</p> <p>2.1.1, 2.2.1, 2.3.1 Complete detailed designs and update EMPs and resettlement plans by 2017</p> <p>2.1.2, 2.2.2, 2.3.2 Complete land acquisition and resettlement activities by 2019</p> <p>2.1.3, 2.2.3, 2.3.3 Complete procurement of works and goods by 2020</p> <p>2.1.4, 2.2.4, 2.3.4 Complete civil works and equipment installation by 2022</p> <p>2.2.5 Develop a flood forecast and warning system and make it operational by 2021</p> <p>2.3.5 Reduce nonrevenue water by 2020</p> <p>2.3.6 Introduce management information systems and make them operational by 2021</p> <p><b>3. Improved competencies in urban environmental management and climate change adaptation</b></p> <p>3.1 Establish PMUs with qualified staff by 2016</p> <p>3.2 Recruit and mobilize consultants by 2017</p> <p>3.3 Review and update the financial cost recovery and management proposals by 2018</p> <p>3.4 Develop training programs and manuals by 2019</p> <p>3.5 Conduct training for PPCs, Quang Binh URENCO, and Quang Nam WSDC by 2022</p> <p>3.6 Develop public awareness programs and materials for beneficiaries by 2019</p> <p>3.7 Conduct awareness programs by 2022</p>			
<p><b>Inputs</b></p> <p>Asian Development Bank's ordinary capital resources: \$100,000,000</p> <p>Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility: \$ 4,000,000</p> <p>Government: \$ 40,160,000</p>			
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable.</p>			

EMP = environmental management plan, km = kilometer, m<sup>3</sup> = cubic meter, NA = not available, PMU = project management unit, PPC = Provincial People's Committee, URENCO = urban environment company, WSDC = water supply and drainage company.

<sup>a</sup> SEDP 2011–2015 was developed to realize the long-term development objectives of the Socio-Economic Development Strategy for 2011–2020.

Source: Asian Development Bank.

### **LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=43237-013-3>

1. Loan Agreement
2. Grant Agreement
3. Project Agreement
4. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services
5. Project Administration Manual
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Financial Analysis
9. Economic Analysis
10. Country Economic Indicators
11. Summary Poverty Reduction and Social Strategy
12. Gender Action Plan
13. Initial Environmental Examination: Dong Hoi City
14. Initial Environmental Examination: Hoi An City
15. Resettlement Plan: Dong Hoi City
16. Resettlement Plan: Hoi An City
17. Risk Assessment and Risk Management Plan

### **Supplementary Documents**

18. Economic Analysis – Dong Hoi City
19. Economic Analysis – Hoi An City