

Project Administration Manual

Project Number: 43237-013
Loan and/or Grant Number(s): {LXXXX; GXXXX}
November 2015

Socialist Republic of Viet Nam: Urban Environment
and Climate Change Adaptation Project

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1. Dong Hoi Resettlement Plan
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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing and implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Legal agreements. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Legal Agreements, the provisions of the Legal Agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	–	Asian Development Bank
AH	–	affected household
AP	–	affected person
EMP	–	environment management plans
ENPV	–	economic net present value
IEE	–	initial environmental examination
GDP	–	gross domestic product
m ²	–	square meter
PAM	–	project administration manual
PMU	–	project management unit
PPC	–	provincial people's committee
SEDP	–	Socio-Economic Development Plan
SPS	–	Safeguard Policy Statement
UNESCO	–	United Nations Educational, Scientific and Cultural Organization
URENCO	–	Urban Environment Company
WSDC	–	Water Supply and Drainage Company

I. PROJECT DESCRIPTION

A. Rationale

1. **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.

2. **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.

3. **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 300,000.¹ If the trend continues, the resulting spatial and economic 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.

4. **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.

5. 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

¹ 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.

(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.

6. 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 amount of wastewater and garbage, 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.

7. **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 2020.² 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.³ It encourages comprehensive socioeconomic development in secondary cities, 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 2012–2020,⁴ 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.

8. **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;

² SEDP 2011–2015 was developed to realize the long-term development objectives of the Socio-Economic Development Strategy for 2011–2020.

³ ADB. 2012. *Country Partnership Strategy: Viet Nam, 2012–2015*. Manila.

⁴ ADB. 2013. *Urban Operational Plan, 2012–2020*. Manila.

and (iii) promote strong ownership and involvement of the provincial government agencies in project design and implementation.⁵ These lessons were studied during project preparation and incorporated in the project design.

9. **Special features.** The project is the first urban development project for provincial governments that uses ADB loan funds relented 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

10. The project's expected impact will be improved urban environment 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

11. 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 constructing a wastewater treatment plant and primary and secondary networks.⁶ 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.

⁵ 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.

⁶ 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.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2015										2016		Responsible	
	M	A	M	J	J	A	S	O	N	D	J	F		
Advance contracting actions														PPCs
Preparation of detailed engineering design														PPCs
Recruitment of project implementation support consultant														PPCs
Establish project implementation arrangements														PPCs
ADB Board Approval														ADB
Loan signing														ADB and SBV
Government legal opinion provided														MOJ, SBV
Government budget inclusion														MOF, PPCs
Loan effectiveness														ADB

ADB = Asian Development Bank, MOJ = Ministry of Justice, PPC = provincial people's committee, SBV = State Bank of Viet Nam.

B. Project Readiness Filters

Filters	Stage 1 Draft Concept Paper	Stage 2 By Fact-finding	Stage 3 Before SRM/MMR	Stage 4 Loan Negotiations
Core Advance Actions				
Advance actions reflected in the ADB project documents	Included in CP [completed]	Included in MOU, PAM, and procurement plan [completed]	Advance action plan highlighted in the issues paper [completed]	
National consultant hired to help the EA drafting the PO	TORs included in CP and funded by PPTA [completed]	PO included advance actions [completed]		
Final draft PO and FS agreed between ADB and Government		Draft PO ready to be sent to PM without further modifications [completed]	FS includes advance actions [completed]	
Preparation of REOI and first year bidding documents by the EA		Immediately once PO is approved [completed]		
Line Ministry/PPC officially approves PMU establishment		Immediately once PO is approved [completed]		
Procurement plan, bidding documents, TORs, and RFPs are ready in a final draft		Immediately once PO is approved [completed]		
Resettlement Policy Framework is approved			Once FS is approved [completed]	
Line Ministry/PPC approves the procurement plan. PMU issues bidding documents and REOIs				EA to secure approval of the procurement plan maximum 2 weeks after loan negotiations to enable to issue bidding documents and REOIs [to follow]
Procurement/Consulting^a				

Filters	Stage 1 Draft Concept Paper	Stage 2 By Fact-finding	Stage 3 Before SRM/MRM	Stage 4 Loan Negotiations
PPTA procurement consultant TOR includes preparation of procurement plan, potential SOE issues and advance actions	TORs included in CP [completed]			
Procurement assessment ready		Shared with VRM/OSP2 staff for comments [completed]		
NCB Annex is explained to PMU		NCB Annex is reproduced as an annex to the MOU [completed]		
Small consulting packages to be funded by counterpart funding (to avoid time-consuming ADB reviews)		Reflected in the procurement plan		
Consulting services and procurement are packaged into few and large packages (to avoid splitting)		Reflected in the procurement plan [completed]		
Single-stage single-envelop bidding procedure applied for small works contract		Reflected in PAM [completed]		
Project Management				
Project start-up consultant TORs funded by PPTA to help advertising loan implementation support consulting firm	Included in CP [completed]	Start-up consultant mobilized [completed]		REOI issued [to follow]
PPTA period must cover the period until at least loan effectiveness	Included in CP [completed]			
Maximum 5 participating provinces in the project unless the project is a national target program		Mentioned in PO and MOU [completed]		
Competitive mechanisms are developed to allow IAs to compete for unallocated funds and loan savings		Mechanism developed in MOU and PAM [completed]	Mechanism mentioned in the issues paper [to follow]	
AND will approve CVs of key PMU staff before loan effectiveness or as a loan condition		EAs and IAs are made aware of this requirement [completed]		
Selection of permanent PMU with staff who have prior exposure to ADB and have a permanent structure	PPTA searches for professional PMUs [completed]	PMU assessments are made in MOU [completed]		
Project director must be young enough to complete the project before his/her retirement		EAs and IAs are made aware of this requirement [completed] ^b		
Evidence of provision of first year counterpart funding is shown to ADB				Evidence received [to follow]
Prepare memo to VP for early approval of advance		Memo prepared when back in HQ		

Filters	Stage 1 Draft Concept Paper	Stage 2 By Fact-finding	Stage 3 Before SRM/MRM	Stage 4 Loan Negotiations
actions		[completed]		
Engineering				
PPTA TOR include preparation of detailed engineering design	Included in CP [NA]	Detailed engineering design for civil work contracts for the first 1.5 years of implementation agreed with ADB [NA]		
Determine if detailed engineering design will be completed before loan approval		MOU will assess progress of detailed engineering designs [NA]		
Designs and cost estimates are agreed with EAs		Included in MOU [completed]		
Financial Management				
Financial management assessment ready		Shared with VRM disbursement unit/SEOD financial management staff for comments [completed]		
Project specific financial management manual developed		Shared with VRM disbursement unit/SEOD FM staff for comments [completed]		
Standard audit TORs for ADB-funded projects in Viet Nam is used to engage only eligible audit firms		Included in PAM [completed]		
Resettlement				
PPCs/District PCs are aware of the project	PPCs/District PCs endorsements to receive PPTA consultants are obtained prior to mobilization [completed]	Differences between ADB and Government regulations are recorded in the MOU [completed]		
Land acquisition and resettlement issues identified	Included in CP [completed]	Assessed and discussed with PPCs [completed]		
Preparation of Resettlement Policy Framework and subproject resettlement plans by the PPTA	TORs included in CP [completed]	Included in PPTA report and Resettlement Policy Framework posted on EAs' websites [completed]		

^a The first year bidding documents will serve as Master Bidding Documents. The first year bidding documents will be forwarded to OSP2 for review when they are available.

^b It was pointed out that ADB project team leader is not young enough to complete the project before her retirement.

ADB = Asian Development Bank, CP = concept paper, CV = curriculum vitae, EA = executing agency, FS = feasibility study, HQ = headquarters, IA = implementing agency, MOU = memorandum of understanding, NCB =

national competitive bidding, OSP2 = Procurement Division 2, Operations Services and Financial Management Department, PAM = project administration manual, PMU = project management unit, PO = project outline, PPC = provincial people's committee, PPTA = project preparatory technical assistance, REOI = request for expression of interest, SEOD = Office of the Director General, Southeast Asia Department, SOE = state-owned enterprise, TORs = terms of reference, VP = Vice President, VRM = Viet Nam Resident Mission,

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation Management Roles and Responsibilities organizations

<ul style="list-style-type: none"> • Quang Binh Provincial People's Committee • Quang Nam Provincial People's Committee 	<p>Executing Agencies:</p> <ul style="list-style-type: none"> ➤ Oversee project activities within the project city. ➤ Approve long term and 1 year rolling plans for implementation. ➤ Ensure compliance with loan covenants. ➤ Submit disbursement projections and ensure counterpart fund allocation. ➤ Approve procurement plans. ➤ Ensure that project implementation complies with ADB's safeguard policy and provisions in the EMPs included in the IEEs.
<ul style="list-style-type: none"> • Quang Binh Provincial Urban Environment Company • Quang Nam Provincial Water Supply and Drainage Joint Stock Company 	<p>Implementing Agencies:</p> <ul style="list-style-type: none"> ➤ Coordinate and monitor project activities of PMUs. ➤ Approve detailed designs, and procurement documents, bid evaluation, and contract awards. ➤ Approve the consultant for implementation support, capacity development, and awareness building. ➤ Coordinate in providing capacity development programs for PMUs. ➤ Coordinate in providing awareness building programs for communities. ➤ Obtain necessary environmental approvals from the respective departments of natural resources and environment prior to awarding civil works contracts. ➤ Oversee and support PMUs with implementation of EMPs. ➤ Oversee regular reporting by PMU on implementation of EMP to the executing agency. ➤ Undertake quality control inspections of the project facilities. ➤ Manage the handover of project facilities to the agencies responsible for operation and maintenance.
	<p>Project Management Units:</p> <ul style="list-style-type: none"> ➤ Undertake day-to-day management of the project activities. ➤ Prepare the consultant for implementation support, capacity development, and awareness building. ➤ Monitor the implementation of resettlement activities by respective district governments, provide guidance as needed, and submit monitoring reports to the executing agencies and ADB. ➤ Award civil works and equipment contracts. ➤ Supervise civil works contractors.

Project implementation organizations Management Roles and Responsibilities

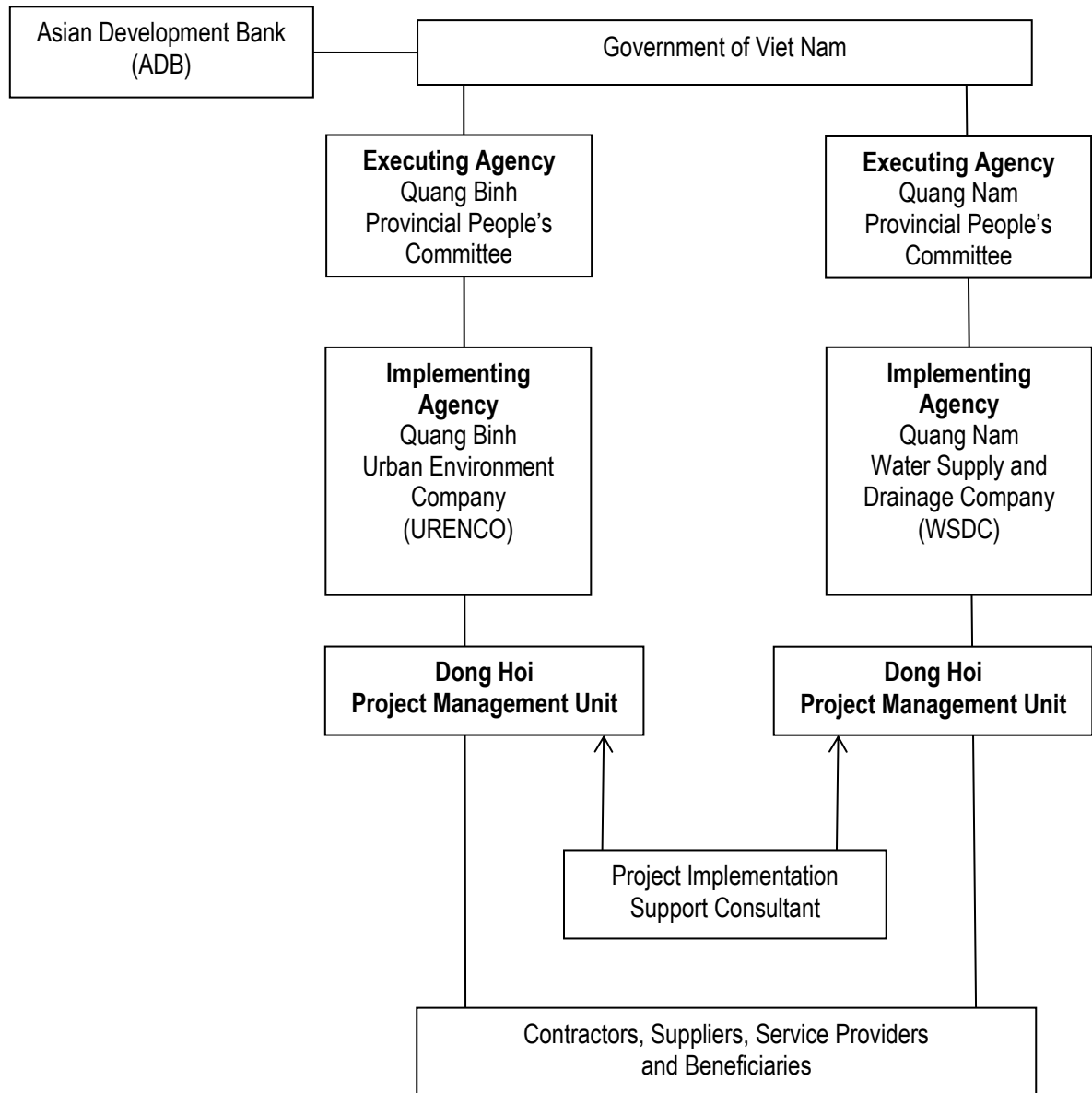
	<ul style="list-style-type: none"> ➤ Manage and operate imprest account. ➤ Prepare and submit withdrawal applications and retain supporting documents. ➤ Ensure that environmental protection and mitigation measures in the EMPs are incorporated in the detailed design and included in the civil works contracts. ➤ Ensure implementation of the EMPs, submit regular monitoring reports through the implementing agencies to the executing agencies, and identify corrective actions as necessary. ➤ Submit regular (quarterly and annual) project reports to ADB. ➤ Prepare and submit annual audit reports and financial statements. ➤ Submit updated resettlement plans to ADB for ADB concurrence prior to implementation. ➤ Implement the gender action plan, stakeholder participation plan, and stakeholder communication strategy.
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<ul style="list-style-type: none"> • ADB 	<p>Project financier</p> <ul style="list-style-type: none"> ➤ Review and approve procurement and disbursement documents. ➤ Conduct semi-annual reviews to assess: (i) overall project implementation; (ii) land acquisition and resettlement; (iii) environmental management; (iv) project expenditures, disbursements, and counterpart funding; (v) procurement and contract awards; (vi) compliance with the loan covenants; and (vii) likelihood of attaining the project’s outputs and outcome. ➤ Regularly update the project performance review reports with the assistance of executing agencies. ➤ Ensure the compliance of financial audits recommendations. ➤ Regularly post on ADB web the updated project information documents for public disclosure, and also the safeguards documents as per disclosure provision of the ADB safeguards policy statement. ➤ Conduct a mid-term review to (i) assess need to restructure or reformulate the project, (ii) update the project’s design and monitoring framework, and (iii) examine the need to extend the loan closing date. ➤ Conduct a project completion mission to (i) evaluate the overall performance of project implementation, and (ii) assess whether the project has achieved the outcome anticipated at appraisal.
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B. Key Persons Involved in Implementation

Executing Agency	
Provincial People's Committee Quang Binh Province	Officer's Name: Mr. Nguyen Xuan Quang Position: Vice Chairman Telephone: +84 52 3500 711 Email address: ubnd@quangbinh.gov.vn Office Address: 06 Hung Vuong Street, Dong Hoi City, Quang Binh Province
Provincial People's Committee Quang Nam Province	Officer's Name: Mr. Dinh Van Thu Position: Vice Chairman Telephone: +84 510 360 1555 Email address: thudvqnam@gmail.com Office Address: 62 Hung Vuong, Tam Ky City, Quang Nam Province
Asian Development Bank Urban Development and Water Division, Southeast Asia Department	Officer's Name: Ms. Tatiana Gallego-Lizon Position: Director Telephone: +63 2 632 6379/5613 Email address: tlizon@adb.org Office Address: 6 ADB Avenue, Mandaluyong City 1550 Metro Manila Philippines
	Officer's Name: Ms. Eri Honda Position: Principal Urban Development Specialist Telephone: +63 2 632 6891/5464 Email address: ehonda@adb.org Office Address: 6 ADB Avenue, Mandaluyong City 1550 Metro Manila Philippines

C. Project Organization Structure



IV. COSTS AND FINANCING

12. The project is estimated to cost \$144.16 million, including taxes of \$10.24 million, physical contingencies of \$12.46 million, price contingencies of \$4.96 million, and financial charges during implementation of \$6.52 million (Table 1). Detailed cost estimates by output are shown in Section B. Cost estimates by expenditure category, financier, component, and year are shown in Section C.

Table 1: Project Investment Plan
(\$ million)

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

Note: Numbers may not sum precisely because of rounding.

^a 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.

^b In mid-2015 prices.

^c 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.

^d 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.

Table 2: Project Financing Plan

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

^a Financing partners: the Rockefeller Foundation and the Governments of the United Kingdom and the United States.
Source: Asian Development Bank estimates.

A. Detailed Cost Estimates by Expenditure Category

Item	(VND Million)			(\$ Million)		
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
A. Investment Costs						
1. Civil Works	561,398	1,316,186	1,877,584	26.52	62.17	88.69
a. Civil Works (Loan QB)	172,924	403,490	576,414	8.17	19.06	27.23
b. Civil Works (Loan QN)	387,535	904,248	1,291,782	18.31	42.71	61.02
c. Civil Works (UCCRTF)	939	8,448	9,387	0.04	0.41	0.44
2. Equipment	30,260	8,661	38,921	1.43	0.39	1.84
a. Equipment (Loan)	18,517	3,268	21,785	0.87	0.15	1.03
b. Equipment (UCCRTF)	11,743	5,393	17,136	0.55	0.25	0.81
3. Consulting Services	81,138	77,724	158,863	3.83	3.67	7.50
a. Consulting Services (ADB)	50,014	64,463	114,477	2.36	3.05	5.41
b. Consulting Services (UCCRTF)	31,124	13,262	44,386	1.47	0.63	2.10
4. Capacity Building	703	6,331	7,035	0.03	0.30	0.33
5. Survey, Design and Supervision	4,093	77,768	81,861	0.19	3.67	3.87
a. Survey, Design and Supervision (UCCRTF)	334	6,347	6,681	0.02	0.30	0.32
b. Survey, Design and Supervision (ADB)	3,759	71,421	75,180	0.18	3.37	3.55
6. Gender Mainstreaming	-	8,468	8,468	-	0.40	0.40
7. Environmental Management	-	1,016	1,016	-	0.05	0.05
8. Resettlement	-	377,067	377,067	-	17.81	17.81
Subtotal (A)	677,593	1,873,221	2,550,814	32.01	88.48	120.49
B. Contingencies						
1. Physical	63,196	195,338	258,533	2.99	9.23	12.22
2. Price	130,986	321,522	452,507	1.43	3.53	4.96
Subtotal (B)	194,181	516,859	711,040	4.42	12.76	17.18
C. Financing Charges During Implementation						
1. Interest During Implementation	141,530	-	141,530	6.00	-	6.00
2. Commitment Charges	12,082	-	12,082	0.49	-	0.49
Subtotal C	153,612	-	153,612	6.49	-	6.49
Total Project Cost (A+B+C)	1,025,386	2,390,080	3,415,466	42.91	101.24	144.16

B. Allocation and Withdrawal of Loan and Grant Proceeds

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Urban Environment and Climate Change Adaptation Project)				
No.	Item	Total Amount Allocated for ADB Financing (\$ million)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Civil Works	77.01		
	Output 1: Dong Hoi ^a		23.08	85% of total expenditure claimed
	Output 2: Hoi An ^b		53.93	88% of total expenditure claimed
2	Equipment	0.94		
	Output 1: Dong Hoi ^a		0.30	91% of total expenditure claimed
	Output 2: Hoi An ^b		0.64	91% of total expenditure claimed
3	Consulting Services	3.50		
	Output 1: Dong Hoi ^a		1.03	65% of total expenditure claimed
	Output 2: Hoi An ^b		2.47	65% of total expenditure claimed
4	Interest During Construction	6.49		100% of total amounts due
5	Unallocated	12.06		
	Total	100.00		

^a Subject to the conditions for withdrawal described in Loan Agreement, Schedule 3, para. 6.

^b Subject to the conditions for withdrawal described in Loan Agreement, Schedule 3, para. 7.

* Exclusive of taxes and duties within the territory of the Borrower.

ALLOCATION AND WITHDRAWAL OF GRANT PROCEEDS (Urban Environment and Climate Change Adaptation Project)				
No.	Item	Total Amount Allocated for ADB Financing (\$ million)		Basis for Withdrawal from the Grant Account
		Category	Subcategory	
1	Civil Works ^a	0.44		100% of total expenditure claimed
2	Equipment ^b	0.81		100% of total expenditure claimed
3	Consulting Services	2.75		
	Output 1: Dong Hoi ^a		0.56	100% of total expenditure claimed
	Output 2: Hoi An ^b		2.19	100% of total expenditure claimed
	Total	4.00		

^a Subject to the conditions for withdrawal described in Grant Agreement, Schedule 1, para. 5.

^b Subject to the conditions for withdrawal described in Grant Agreement, Schedule 1, para. 6.

C. Detailed Cost Estimates by Financier

(\$ Million)

Item	Asian Development Bank		Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility ^a		The Government				Total Cost
	Amount	% of Cost Category	Amount ^b	% of Cost Category	Amount (Costs)	Amount (Taxes & duties) ^c	Amount (Total)	% of Cost Category	
A. Investment Costs									
1. Civil Works	77.00	86.8	0.44	0.5	3.21	8.03	11.24	12.7	88.69
a. Civil Works (Loan QB)	23.08	84.8	-	-	1.67	2.48	4.15	15.3	27.23
b. Civil Works (Loan QN)	53.93	88.4	-	-	1.54	5.55	7.09	11.6	61.02
c. Civil Works (UCCRTF)	-	-	0.44	100.0	-	-	-	-	0.44
2. Equipment	0.94	50.9	0.81	44.0	-	0.09	0.09	5.1	1.84
a. Equipment (Loan)	0.94	90.9	-	-	-	0.09	0.09	9.1	1.03
b. Equipment (UCCRTF)	-	-	0.81	100.0	-	-	-	-	0.81
3. Consulting Services	3.50	46.7	2.10	27.9	1.67	0.23	1.90	25.4	7.50
a. Consulting Services (ADB) ^d	3.50	64.8	-	-	1.67	0.23	1.90	35.2	5.41
b. Consulting Services (UCCRTF)	-	-	2.10	100.0	-	-	-	-	2.10
4. Capacity Building	-	-	0.33	100.0	-	-	-	-	0.33
5. Survey, Design and Supervision	-	-	0.32	8.2	3.23	0.32	3.55	91.8	3.87
Survey, Design and Supervision (UCCRTF)	-	-	0.32	100.0	-	-	-	-	0.32
Survey, Design and Supervision (ADB)	-	-	-	-	-	0.32	3.55	100.0	3.55
6. Gender Mainstreaming ^e	-	-	-	-	0.40	-	0.40	100.0	0.40
7. Environmental Management	-	-	-	-	0.05	-	0.05	100.0	0.05
8. Resettlement	-	-	-	-	17.81	-	17.81	100.0	17.81
Subtotal (A)	81.44	67.6	4.00	3.3	26.37	8.68	35.05	29.1	120.49
B. Contingencies	12.07	70.3	-	-	3.82	1.28	5.10	29.7	17.17
C. Financing Charges During Implementation									
1. Interest During Implementation	6.00	100.0	-	-	-	-	-	-	6.00
2. Commitment Charges	0.49	100.0	-	-	-	-	-	-	0.49
Subtotal C	6.49	100.0	-	-	-	-	-	-	6.49
Total Project Cost (A+B+C)	100.00	69.37	4.00	2.77	30.20	9.96	40.16	27.86	144.16
% Total Project Cost		69%		3%		28%			100%

^a Financing partners: The Rockefeller Foundation and the Governments of the United Kingdom and the United States. Administered by Asian Development Bank (ADB).

^b Inclusive of taxes and duties of \$0.19 million.

^c Taxes and duties of \$10.05 will be financed from government resources thru cash contribution.

^d An external financial auditing firm will be engaged to conduct annual audit during project implementation. The audit cost estimated at \$70,000 will be financed by ADB loan under the consulting services.

^e Gender mainstreaming covers the costs for meetings, consultations, and material preparation.

D. Detailed Cost Estimates by Outputs/Components

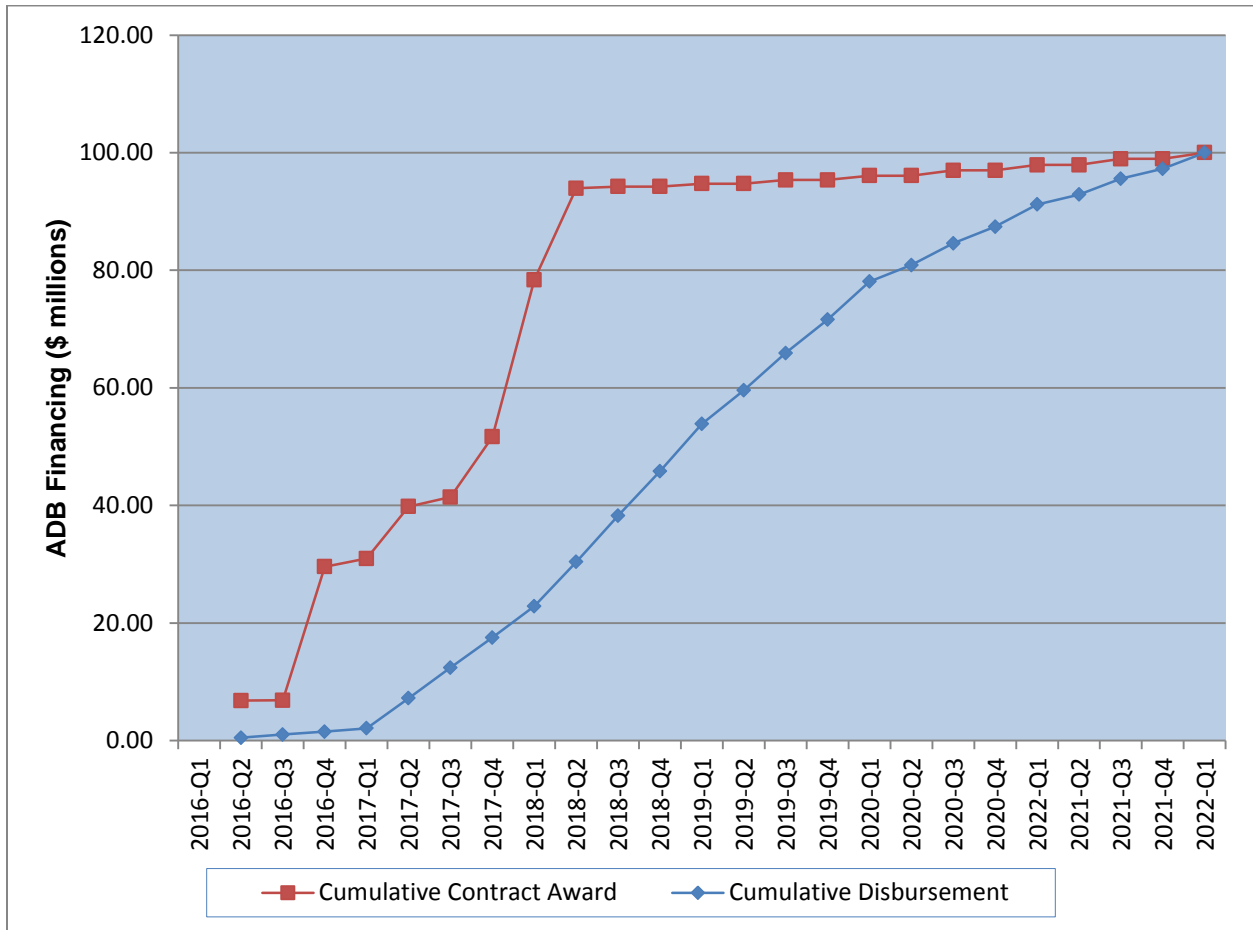
(\$ Million)							
Item	Total Cost	Dong Hoi Urban Environment and Climate Change Adaptation		Hoi An Urban Environment and Climate Change Adaptation		Project Management and Climate Change Support	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Investment Costs							
1. Civil Works	88.69	27.67	31.2	61.02	68.8	-	-
a. Civil Works (Loan QB)	27.23	27.23	100.0	-	-	-	-
b. Civil Works (Loan QN)	61.02	-	-	61.02	100.0	-	-
c. Civil Works (UCCRTF)	0.44	0.44	100.0	-	-	-	-
2. Equipment	1.84	0.51	27.6	1.33	72.4	-	-
a. Equipment (Loan)	1.03	0.33	32.1	0.70	67.9	-	-
b. Equipment (UCCRTF)	0.81	0.18	22.0	0.63	78.0	-	-
3. Consulting Services	7.50	0.36	4.8	2.23	29.7	4.91	65.5
a. Consulting Services (ADB)	5.41	-	-	0.50	9.2	4.91	90.8
b. Consulting Services (UCCRTF)	2.10	0.36	17.2	1.74	82.8	-	-
4. Capacity Building	0.32	0.02	5.2	0.32	100.3	-	-
5. Survey, Design and Supervision	3.87	1.38	35.6	2.49	64.4	-	-
a. Survey, Design and Supervision (UCCRTF)	0.32	-	-	0.32	100.0	-	-
b. Survey, Design and Supervision (ADB)	3.55	1.38	38.8	2.17	61.2	-	-
6. Gender Mainstreaming	0.40	-	-	-	-	0.40	100.0
7. Environmental Management	0.05	0.02	50.0	0.02	50.0	-	-
8. Resettlement	17.81	2.28	12.8	15.53	87.2	-	-
Subtotal (A)	120.49	32.24	26.8	82.94	68.8	5.31	4.4
B. Contingencies							
1. Physical	12.21	3.15	25.8	8.75	71.6	0.31	2.5
2. Price	4.96	1.34	27.1	3.49	70.4	0.12	2.5
Subtotal (B)	17.17	4.50	26.2	12.24	71.3	0.43	2.5
C. Financing Charges During Implementation							
1. Interest During Implementation	6.00	1.83	30.56	3.90	65.06	0.26	4.42
2. Commitment Charges	0.49	0.13	27.0	0.34	69.4	0.02	3.2
Subtotal C	6.49	1.97	30.3	4.24	65.4	0.28	4.3
Total Project Costs (A+B+C)	144.16	38.70	26.8	99.43	69.0	6.03	4.2

E. Detailed Cost Estimates by Year

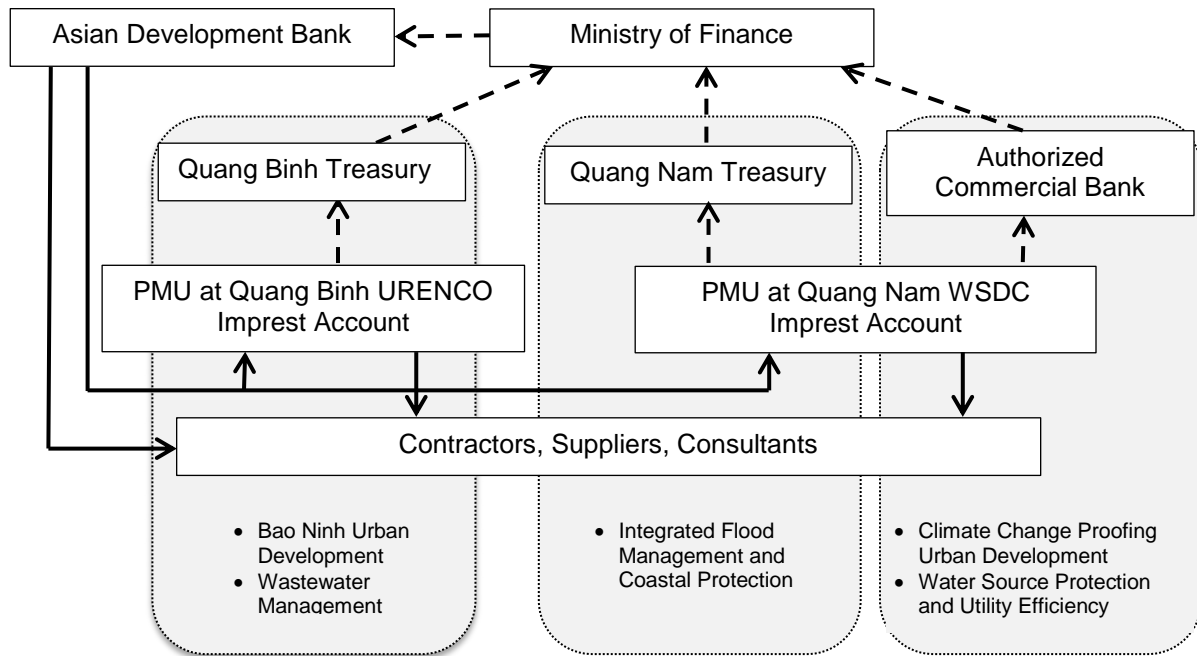
(\$ Million)

Item	Total Cost	Base Cost					
		2016	2017	2018	2019	2020	2021
A. Investment Costs							
1. Civil Works	88.69	1.14	19.77	29.26	21.82	10.44	6.26
a. Civil Works (Loan QB)	27.23	0.76	6.43	8.55	8.47	3.01	-
b. Civil Works (Loan QN)	61.02	-	13.32	20.70	13.34	7.42	6.25
c. Civil Works (UCCR TF)	0.44	0.39	0.01	0.01	0.01	0.01	0.01
2. Equipment	1.84	0.18	0.54	0.78	0.25	0.09	-
a. Equipment (Loan)	1.03	-	0.23	0.47	0.25	0.09	-
b. Equipment (UCCR TF)	0.81	0.18	0.32	0.32	-	-	-
3. Consulting Services	7.50	2.93	1.41	1.15	1.03	0.64	0.36
a. Consulting Services (ADB)	5.41	2.53	0.86	0.70	0.58	0.50	0.24
b. Consulting Services (UCCR TF)							
4. Capacity Building	0.33	0.01	0.07	0.07	0.06	0.06	0.06
5. Survey, Design and Supervision	3.87			1.23	0.94	0.44	0.29
a. Survey, Design and Supervision (UCCF)	0.32	0.05	0.05	0.05	0.05	0.05	0.05
b. Survey, Design and Supervision (ADB)	3.55	0.04	0.83	1.17	0.89	0.39	0.23
6. Gender Mainstreaming	0.40	0.40	-	-	-	-	-
7. Environmental Management	0.05	-	0.01	0.01	0.01	0.01	0.01
8. Resettlement	17.81	8.91	8.91	-	-	-	-
Subtotal (A)	120.49	13.65	31.58	32.50	24.11	11.67	6.98
B. Contingencies							
1. Physical	12.21	1.44	3.45	3.16	2.35	1.14	0.67
2. Price	4.96	0.09	0.75	1.28	1.36	0.86	0.62
Subtotal B	17.17	1.53	4.20	4.44	3.71	2.00	1.29
C. Financing Charges During Implementation							
1. Interest During Implementation	6.00	0.01	0.15	0.67	1.32	1.79	2.06
2. Commitment Charges	0.49	0.15	0.14	0.10	0.06	0.03	0.01
Subtotal C	6.49	0.16	0.29	0.77	1.38	1.82	2.07
Total Project Cost (A+B+C)	144.16	15.34	36.08	37.71	29.20	15.49	10.34
% Total Project Cost	100%	179%	25%	26%	20%	11%	7%

F. Contract and Disbursement S-curve



G. Fund Flow Diagram



--> = withdrawal application, —> = payment, ----> claim
 PPC = Provincial People's Committee, URENCO = Urban Environment Company, WSDC = Water Supply and Drainage Joint Stock Company.
 Source: Asian Development Bank.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

13. Financial management assessment (FMA) has been undertaken to determine the institutional capacity of each implementing agency (IA), funds flow arrangements, staffing, accounting policies and procedures, internal and external auditing arrangements, reporting and monitoring aspects, and information system (Appendix 1).

14. The project will operate in two provinces of Viet Nam Quang Binh and Quang Nam, and the provinces will be the executing agencies (EAs). For each province, the components will be based in a single city but will cover a number of sectors. Quang Binh IA will be Urban Environment Company (URENCO). Quang Nam IA will be the Provincial Water Supply and Drainage Joint Stock Company (WSDC) and its Hoi An Division. A project management unit (PMU) has been established under each IA. The IAs and PMUs will be led by senior and experienced staff, which has experience with projects funded by other multilateral development banks. The IAs and PMUs will use Viet Nam accounting standards, an accrual based system, and the IA and PMU staff are well versed in the standards. The provincial Department of Finance will support the IA and PMU and will supervise accounts and report to the provincial people's committee (PPC). Separate internal and external auditors will also be used.

15. The Financial Management Assessment Questionnaire (FMAQ), initially proposed and prepared by ADB, was slightly modified and translated into Vietnamese, where appropriate, to adapt to the specific conditions of the subprojects and formed the basis for the assessment. Issues or risks associated with each entity's financial management systems were identified and appropriate risk mitigation measures were recommended for adoption as part of the project design. The FMAQs were completed in 2014 and are attached as appendices.

16. The results of the FMAQs were analyzed with particular focus on the accounting and auditing procedures and staff expertise. In terms of accounting and auditing procedures, the existing financial information system (i.e., accounting, reporting, and internal control system) is complete and applicable for domestic construction entities.

17. Vietnam's internal Public Administration Performance Index (PAPI)⁷ ranks the administrations in each province based on provincial performance in terms of participation at local levels, transparency, vertical accountability, control of corruption, public administrative procedures, and public service delivery. Vietnam's 63 provinces are classified into four groups based on their PAPI score: best performers, high average, low average, and poor performers. In 2013, both PPCs ranked highly in terms of their PAPI scores: Quang Binh Province was one of 16 "best performers", and Quang Nam Province was one of 15 provinces rated "high average".

18. Both have implemented ADB-funded projects.

Province	Project
Quang Binh	<ul style="list-style-type: none"> World Bank-financed Coastal Cities Environmental Sanitation Project in Dong Hoi

⁷ PAPI is a policy monitoring instrument developed by the Viet Nam Fatherland Front (VFF), the Committee for People's Petition (CPP), the Center for Community Support and Development Studies (CECODES) and the United Nations Development Programme (UNDP). PAPI provides objective and evidence-based measures, based on citizens' experiences and direct interactions, of the standards of provincial level governance, public administration, and the performance of public services

Province	Project
Quang Nam	<ul style="list-style-type: none"> • ADB-funded Central Region Urban Environmental Improvement Project • World Bank-financed Urban Water Supply and Wastewater Project in three cities in Quang Nam Province • Government of Norway-financed Upgrading and Expansion of Hoi An Water Supply Plant Project • Government of Italy financed Drainage and Sanitation Project in Hoi An
Both	<ul style="list-style-type: none"> • ADB-funded Central Region Rural Water Supply and Sanitation Sector Project

19. Both IAs have experience implementing construction projects, including externally financed projects (but not ADB-funded projects). In Dong Hoi an on-going World Bank sanitation project is funded through the local financial department and funds flow arrangements are satisfactory. There have been no funds flow, invoicing, or auditing problems. Physical as well as financial targets are budgeted. A separate bank (to be identified) will be used for the imprest accounts.

20. The FMAs concluded that both IAs have sufficient capacity to properly administer the imprest accounts. Counterpart funds will come directly from each PPC. Training on ADB's disbursement procedures and advanced financial management will be conducted to ensure success of implementation of the project. The financial management specialist of the project implementation support consultant will support the administration of the procedures until sufficient capacity exist in the IAs.

21. The following actions were agreed with the EAs and IAs:

Weakness	Mitigation Action	Responsibility	Timeframe
Weak financial management capacity.	Each PMU will be established with qualified accountant.	EA/IA	By loan effectiveness
IA staff requires further capacity development in financial management.	Project implementation support consultant will be engaged.	EA/IA	By 2016
Some gaps in financial management procedures.	Project financial management procedures will be established	EA/IA	By 2016
No experience in ADB-funded projects.	Training programs on ADB's disbursement procedures and advanced financial management will be developed and implemented.	EA/IA/ADB	Regularly during project implementation
No experience in ADB-funded projects.	Compliance with the financial covenants will be monitored.	ADB	Regularly during project implementation

B. Disbursement

22. The loan and grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time),⁸ and detailed arrangements agreed upon between the government and ADB.

23. Each PMU will open and maintain separate imprest accounts by financing source for ADB loan and UCCRTF grant funds in US dollar in a bank acceptable to ADB. Payments for large contracts will be through direct payment, reimbursement, or commitment procedures. Disbursements from the imprest accounts will be supported by an appropriate withdrawal application and related documentation. The imprest accounts are to be used exclusively for ADB's share of eligible expenditures. The IA who established the imprest account in its name is accountable and responsible for proper use of advances to the imprest account.⁹

24. The total outstanding advance to any imprest account will not at any time exceed the estimated ADB financed expenditures to be paid from the account for the forthcoming six months. Requests for initial and additional advances to the imprest account should be accompanied by an estimate of expenditure sheet¹⁰ setting out the estimated expenditures for the forthcoming six months of project implementation. For every liquidation and replenishment request of the imprest account, the IA will furnish to ADB (i) statement of account (bank statement) where the imprest account is maintained, and (ii) the imprest account reconciliation statement (IARS) reconciling the above mentioned bank statement against the IA's records.¹¹

25. Statement of expenditure (SOE) procedure may be used to liquidate and reimburse eligible expenditures for any individual payment not exceeding \$100,000. Removal of SOE ceiling will be considered at the end of second year of project implementation if it is confirmed that IAs have sufficient capacity to administer SOE procedures. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.¹²

26. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000 equivalent. Individual payments below this amount should be paid by the EA/IA and subsequently claimed from ADB (i) through reimbursement; or (ii) from the imprest account, unless otherwise accepted by ADB.

C. Accounting Policies and Procedures

27. The IAs/PMUs will use Viet Nam accounting standards, an accrual based system, which the IA is well versed in. To simplify the flow of funds for the Quang Nam components, QN WSDC will be the IA for all the components in the province. There will be staff at the QN WSDC's PMU trained and focused on financial management and close supervision of accounts

⁸ Available at: <http://www.adb.org/documents/loan-disbursement-handbook>

⁹ ADB financing may finance bank charges.

¹⁰ Available in Appendix 10B of the *Loan Disbursement Handbook*.

¹¹ Follow the format provided in 10C of the *Loan Disbursement Handbook*.

¹² SOE form is available in Appendix 9B of the *Loan Disbursement Handbook*.

by the PPC's Department of Finance which will report to the PPC.

28. The EAs and IAs will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. The EAs and IAs will prepare the detailed consolidated project accounts in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing

29. The EAs and IAs will cause the detailed consolidated project financial statements to be audited in accordance with international standards on auditing and/or in accordance with the government's audit regulations, by an independent auditor acceptable to ADB.

30. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the EAs and IAs. The annual audit report for the project accounts will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv) use of the imprest fund procedure; and (v) the use of the statement of expenditure procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the SOE and imprest procedures in accordance with ADB's Loan Disbursement Handbook and the project documents.

31. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

32. The government and the EAs and IAs have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹³ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

33. Public disclosure of the project financial statements, including the audit report on the

¹³ ADB approach and procedures regarding delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

project financial statements, will be guided by ADB's Public Communications Policy (2011)¹⁴. After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

85.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting

34. As an essential measure to project readiness before the loan agreement becomes effective, IAs will pursue advance actions to avoid significant project implementation delays.

35. All advance contracting will be undertaken in conformity with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).¹⁵ The issuance of request for expression of interest under advance contracting will be subject to ADB approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

B. Procurement of Goods, Works and Consulting Services

36. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines* (May 2015, as amended from time to time).¹⁶

37. Contract packages for goods and related services exceeding \$2 million will be awarded on the basis of international competitive bidding (ICB), while those costing between \$100,000 and \$1 million may be awarded through national competitive bidding (NCB). Civil works contracts costing more than \$10 million will be procured using ICB, while those valued between \$100,000 and \$10 million equivalent may be procured using the NCB procedures, in accordance with the national competition bidding procedures provided in Section E. The selection of suppliers/contractors and award of contracts will be subject to ADB's approval. The relevant sections of ADB's *Anticorruption Policy* will be included in all procurement documents and contracts.

38. Before the start of any procurement activity under national competitive bidding, ADB and the government will review the government's national competitive bidding procedures to ensure consistency with ADB's *Procurement Guidelines*. Any modifications or clarifications to such procedures agreed between the government and ADB will be set out in the procurement plan. Any subsequent change to the agreed modifications and clarifications will be effective only after approval of such change by the government and ADB. Whenever any procedure in the national procurement procedures is inconsistent with the ADB *Procurement Guidelines*, the ADB guidelines shall prevail.

39. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. During project implementation, this will be reviewed and updated on an annual basis.

¹⁴ Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹⁵ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

¹⁶ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

40. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).¹⁷ The terms of reference for all consulting services are detailed in Section D.

41. An estimated 121 person-months of international consulting and 248 person-months of national consulting are required to complete the services. The project will engage international consulting firms to carry out (i) project implementation support and capacity development; (ii) Hoi An flood forecasting and warning system, and (iii) Dong Hoi coastal management. Consulting firms will be engaged using the quality- and cost-based selection procedures (90:10). The project will also finance 12 person-months of international individual consultants and 21 person-months of national individual consultants to support project start-up activities. Recruitment of consultants will be in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).

C. Procurement Plan

Basic Data

Project Name: Urban Environment and Climate Change Adaptation Project	
Project Number:	Approval Number:
Country: VIET NAM	Executing Agency: Quang Nam People's Committee and Quang Binh People's Committee
Project Procurement Classification: B	Implementing Agency: Quang Binh URENCO, Quang Nam Water Supply & Drainage Company
Procurement Risk: Low	Project Closing Date: 31 December 2022
Project Financing Amount: \$ 144.18 million ADB Financing: \$100 million Cofinancing (ADB Administered): \$4 million Non-ADB Financing: \$40.18 million	Date of this Procurement Plan: 28 April 2015
Date of First Procurement Plan {loan/grant approval date}:	

1. Methods, Thresholds, Review and 18-Month Procurement Plan

a. Procurement and Consulting Methods and Thresholds

42. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	Above \$10,000,000	Prior review
ICB for Goods	Above \$2,000,000	Prior review
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	The first NCB procured by each implementing agency is subject to prior review, thereafter post review
National Competitive Bidding for Goods	Beneath that stated for ICB, Goods	The first NCB procured by each implementing agency is subject to prior review, thereafter post review

¹⁷ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Prior review
Least-Cost Selection (LCS)	Prior review
Consultant's Qualifications Selection (CQS)	Prior review
Individual Consultant Selection	Prior review

b. Goods and Works Contracts Estimated to Cost \$1 Million or More

43. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
HAW 1	Dredging of Lai Nghi Reservoir	\$3.6	NCB	Prior	1S1E	Q2 2016	Small Works
HAW 2	Lai Nghi Reservoir embankment	\$1.8	NCB	Post	1S1E	Q3 2016	Small Works
HAW 3	Phap Bao Lake upgrading	\$2.6	NCB	Post	1S1E	Q3 2016	Small Works
HAW 4	Road 608	\$9.4	NCB	Post	1S1E	Q4/2016	Small Works
HAW 5	Access road to Cua Dai bridge	\$23.1	ICB	Prior	1S1E	Q2/2016	Large Works
HAW 6-11	CoCo River UDA (6 contracts)	\$21.2	NCB	Post	1S1E	Q2/2016	Small Works
DH/W 1	Household connection and tertiary sewers	\$3.0	NCB	Prior	1S1E	Q2/2016	Small Works
DH/W 2	Primary sewerage extensions	\$1.5	NCB	Post	1S1E	Q2/2016	Small Works
DH/W 3	Bao Ninh wastewater	\$3.5	NCB	Post	1S1E	Q4/2016	Small Works
DH/W 4	Horizontal Road No. 3	\$5.4	NCB	Post	1S1E	Q2/2016	Large Works
DH/W 5	Vertical roads	\$2.5	NCB	Post	1S1E	Q2/2016	Small Works
DH/W 6	Bao Ninh stormwater	\$2.0	NCB	Post	1S1E	Q2/2016	Small Works

c. Consulting Services Contracts Estimated to Cost \$100,000 or More

44. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
DH/PISC1	Project implementation support and capacity	\$1.46	QCBS	Prior	Q3/2015	FTP	International (90:10)

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
	development						
HA/PISC1	Project implementation support and capacity development	\$3.39	QCBS	Prior	Q3/2015	FTP	International (90:10)
DH/C 1	Dong Hoi coastal management	\$0.56	QCBS	Prior	Q2/2016	STP	International (90:10) Funded by grant administered by ADB
HA/C 1	Hoi An flood forecasting and warning system	\$2.19	QCBS	Prior	Q2/2016	FTP	International (90:10) Funded by grant administered by ADB
DH/PISC2	Audit	\$0.03	LCS	Prior	Q3/2016	BTP	National
HA/PISC2	Audit	\$0.04	LCS	Prior	Q3/2016	BTP	National
DH/PISC3	External monitoring	\$0.05	CQS	Prior	Q1/2016	BTP	National
HA/PISC3	External monitoring	\$0.05	CQS	Prior	Q1/2016	BTP	National

d. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

45. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
HA/W 12	Lai Nghi Reservoir gate, pumping and networks	\$0.50	1	NCB	Post	1S1E	Q2/2016	Small Works
HA/G 1	Computer hardware and software for hydro-meteorological monitoring stations	\$0.81	1	NCB	Post	1S1E	Q4/2017	Goods Funded by grant administered by ADB
DH/G 1	Pumping stations and warning systems CSO, CCTV	\$0.33	1	NCB	Prior	1S1E	Q2/2016	Goods
DH/G 2	Pumping stations and	\$0.53	1	NCB	Post	1S1E	Q2/2016	Goods

4. Non-ADB Financing

48. The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

5. National Competitive Bidding

a. General

49. The procedures to be followed for the procurement of goods, non-consulting services, and works under contracts awarded on the basis of National Competitive Bidding shall be those set forth in: (a) Law on Procurement No. 43/2013/QH13 dated November 26, 2013 (“Law on Procurement”) and (b) Decree No. 63/2014/ND-CP dated June 26, 2014 (collectively, “National Procurement Laws”). Whenever any procedure in the National Procurement Laws is inconsistent with the ADB Procurement Guidelines (May 2015, as amended from time to time), the ADB Procurement Guidelines shall prevail, amongst others on the following.

b. Eligibility

- (i) The eligibility of bidders shall be as defined under section I of the ADB Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the ADB Procurement Guidelines, as amended from time to time. Conditions of bidders’ participation shall be limited to those that are essential to ensure bidders’ capability to fulfill the contract in question. Foreign bidders shall be eligible to participate under the same conditions as national bidders. Foreign bidders shall not be asked or required to form joint ventures with, or be subcontractors to, national bidders in order to submit a bid.
- (ii) A firm declared ineligible by ADB cannot participate in bidding for an ADB-financed contract during the period of time determined by ADB.
- (iii) A bidder shall not have a conflict of interest, which term shall be defined in accordance with section 1 of ADB Procurement Guidelines.¹⁸ Any bidder found to have a conflict of interest shall be ineligible for contract award.
- (iv) Government-owned enterprises in the Borrower’s country shall be eligible to participate as a bidder only if they can establish that they are legally and financially autonomous, operate under commercial law and are not dependent agencies of the Borrower or Sub-Borrower.
- (v) National sanction lists may only be applied with approval of ADB¹⁹.

¹⁸ Detailed guidance on how to apply conflict of interest test is available under section 1 of ADB’s standard bidding documents for goods and works (as amended from time to time).

c. Preferences

50. No preference of any kind shall be given to domestic bidders over foreign bidders or for domestically manufactured goods over foreign manufactured goods. Unless otherwise stated in the applicable financing agreement, preferences among domestic bidders set forth in Article 14(3) of the Law on Procurement shall not be applied.

d. Bidding Procedure

51. Single stage-single envelope shall be the default bidding procedure and application of other bidding procedures shall require ADB's prior approval.

e. Time for Bid Preparation

52. The time allowed for the preparation and submission of bids for large and/or complex packages shall not be less than thirty (30) days from the date of the invitation to bid or the date of availability of the bidding documents, whichever is later.

f. Standard bidding documents

53. The harmonized standard bidding documents for ADB and World Bank funded projects (July 2015) shall be used. Bidders shall be allowed to submit bids by hand or by mail/ courier.

g. Bid Opening and Evaluation

- (i) Bids shall be opened in public, immediately after the deadline for submission of bids, regardless of the number of bids received.
- (ii) Except with the prior approval of ADB, merit points shall not be used in bid evaluation.
- (iii) No price adjustments shall be made for evaluation purposes in accordance with Article 117(6) of Decree 63 when unit rates offered by the bidder are determined to be abnormally low.
- (iv) Bidders shall be given commercially reasonable time period to respond to clarification requests.
- (v) Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations²⁰.
- (vi) Except with the prior approval of ADB, negotiations contemplated under paragraphs 7 and 8 of Article 117 of Decree No. 63/2014/ND-CP shall not take place with any bidder prior to contract award.

¹⁹ For fraud and corruption cases, Section 50 of ADB's Integrity Principles and Guidelines provides that ADB may decide that another international financial institution's or legal or regulatory body's determination that a party has failed to adhere to appropriate ethical standards, as defined by any established system of principles, rules, or duties, including the laws or regulations of a state, constitutes that party's failure to maintain the highest ethical standards as required by ADB's Anticorruption Policy. The party may be subject to remedial action in accordance with the Integrity Principles and Guidelines. <http://www.adb.org/sites/default/files/integrity-principles-guidelines.pdf>

²⁰ A minor, non-substantial deviation is one that, if accepted, would not affect in any substantial way the scope, quality, or performance specified in the contract; or limit in any substantial way, the Contracting entity rights or the Bidder's obligations under the proposed contract or if rectified, would not unfairly affect the competitive position of other bidders presenting substantially responsive bids.

- (vii) A bidder shall not be required, as a condition for award of contract, to undertake obligations not specified in the bidding documents or otherwise to modify the bid as originally submitted.

h. Rejection of All Bids and Rebidding

- (i) No bid shall be rejected on the basis of a comparison with the Procuring Entity's estimate or budget ceiling without ADB's prior concurrence.
- (ii) All bids shall not be rejected and new bids solicited without ADB's prior approval.

i. Publication of the Award of Contract. Debriefing.

- (i) For contracts subject to prior review, within 2 weeks of receiving ADB's "No-objection" to the recommendation of contract award, the borrower shall publish in the Government Public Procurement Gazette, or well-known and freely-accessible website the results of the bid evaluation, identifying the bid and lot numbers, and providing information on: i) name of each bidder who submitted a bid; ii) bid prices as read out at bid opening; iii) name and evaluated prices of each bid that was evaluated; iv) name of bidders whose bids were rejected and the reasons for their rejection; and v) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.
- (ii) For contracts subject to post review, the procuring entity shall publish the bid evaluation results no later than the date of contract award.
- (iii) In the publication of the bid evaluation results, the Borrower shall specify that any bidder who wishes to ascertain the grounds on which its bid was not selected, may request an explanation from the Borrower. The Borrower shall promptly provide an explanation of why such bid was not selected, either in writing and/or in a debriefing meeting, at the option of the Borrower. The requesting bidder shall bear all the costs of attending such a debriefing.

j. Contract Administration

54. The Contract Agreement, as such term is defined in the relevant bidding document, shall be applied without any modification during implementation except as otherwise agreed by ADB.

k. Fraud and Corruption

55. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will sanction a party or its related parties, including declaring ineligible, either indefinitely or for a stated period of time, to participate in ADB-financed, administered or supported activities if it at any time determines that the party has, directly or indirectly through an agent, engaged in integrity violations as defined under ADB's Integrity Principles and Guidelines, including corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, an ADB-financed, administered or supported contract.

l. Right to Inspect/ Audit

56. Each bidding document and contract financed by ADB shall include a provision requiring bidders, contractors, agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit ADB to inspect all accounts, records

and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by ADB.

D. Consultant's Terms of Reference

57. Detailed TORs are in Appendix 2.

1. Project Implementation Support and Capacity Development Consultant

a. Scope of Work

58. The consultant will (i) support overall project implementation, and (ii) supervise construction for all civil work contracts. The scope of service is summarized as follows.

59. **Overall project implementation support.** The consultant will:

- (i) support the EAs and IAs to ensure that project implementation will fully comply with government's and ADB's policies and operational requirements in terms of detailed designs, procurement, construction supervision, disbursement, financial management, monitoring and evaluation, social and environmental safeguards policy; climate change adaptation and climate proofing guidance; poverty reduction, gender and development, social inclusion, and civil society participation policies;
- (ii) provide trainings for the EAs, IAs, and PMUs on project implementation management to ensure that the project will be implemented in compliance with ADB and government policies and procedures.
- (iii) prepare and conduct capacity development programs targeting long-term sustainable urban infrastructure management, climate change adaptation and environment protection. The program include public infrastructure planning and implementation, operation and maintenance, financial management and cost recovery, and environmental management and climate resilience; and
- (iv) prepare and conduct public awareness raising program targeting public health, social inclusion, gender and development, environmental protection.

60. **Construction supervision for civil work contracts.** The consultant will:

- (i) undertake construction supervision including defect liability period for all civil work contracts, which will also include the complete implementation of the EMP. The consultant will undertake the engineer's responsibilities specified in the civil work contracts in which FIDIC contract conditions will be used;
- (ii) administer the construction contracts in accordance with the contract conditions; and ensure that all works comply with the approved engineering designs and technical specifications, agreed schedule and budget, terms and conditions of the contracts, standard engineering practice, and ADB's safeguards policy;
- (iii) provide general guidance, issue instructions to contractors, and make engineering decisions in consultation with the IAs;
- (iv) certify the interim and final payment requests submitted by the civil work contractors;
- (v) report and advise the IAs and PMUs on work progress, quality control (including application and compliance with climate resilience construction standards), and implementation issues during civil work contract implementation; and

(vi) undertake detailed tasks required for each of the consultant team member.

61. **Capacity development and public awareness.** The consultant will:

- (i) design and conduct capacity development programs in urban planning and management, environmental protection, and climate change adaptation; and
- (ii) help local communities increase awareness of public health and environmental protection.

b. Implementation Arrangements

62. The consultants will be based at the lead implementing agency in Quang Nam Province, but will be required to travel frequently to the other implementing agency in Quang Binh Province and to the subproject sites. The consultants will provide support and advice to both executing agencies, implementing agencies, and PMUs regarding project implementation activities. All consultants will report directly to the team leader or in the team leader's absence to the deputy team leader, and will work closely with other consultants.

International	Person-months	Experts	National
Team leader / civil / municipal engineer	28	Deputy team leader / national civil engineer	
Climate change / urban planners	7	Climate change / urban planners	
Financial Management Specialists	5	Financial Management Specialists	
Environmental Monitoring Specialists	6	Contract Management Expert	
Resettlement Specialists	6	Environmental Monitoring Specialists	
Gender Specialist	6	Resettlement Specialists Gender Training Specialist	

2. Individual Consultants

a. Scope of Work

63. **International urban planner (6 person-months).** The consultant will assist Quang Binh URENCO and Quang Nam WSDC in managing the process to prepare detailed planning and detailed engineering design. A team of national experts will be engaged for each of Dong Hoi and Hoi An components. The international urban planner will study the feasibility study reports produced by the project preparatory technical assistant (PPTA) consultant, and ensure that the national consultant teams strictly follow the preliminary designs in the reports.

64. **International and national procurement specialists (6 person-months and 9 person-months).** The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC in procurement matters as follows:

- (i) assist PMUs to update procurement plan as required;

- (ii) provide necessary training for PMU staff on ADB procurement requirements which include ADB Procurement Guidelines and ADB Guide on Bid Evaluation (as amended from time to time);
- (iii) prepare bidding documents for packages using international competitive bidding procedure (ICB), and the first bid document using national competitive bidding procedure (NCB) (to be used as sample for the next packages) following ADB standard bidding document, as appropriate;
- (iv) assist PMU in bid preparation and bid evaluation for each package; and
- (v) assist PMU with the preparation of progress reports to the executing agencies and ADB on procurement progress and action plans, and any associated action that may be required.

65. **National environment specialist (4 person-months).** The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC update environment management plans (EMP) for Dong Hoi and Hoi An following the guidelines set forth in ADB's Safeguard Policy Statement (2009).

66. **National resettlement specialist (8 person-months).** The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC update the two resettlement plans (RPs) for Dong Hoi and Hoi An, and conduct periodic external monitoring on resettlement implementation following the guidelines set forth in ADB's Safeguard Policy Statement (2009). The consultant will update the RPs to (i) integrate into the RPs all actual impacts of the subprojects, based on the approved detailed engineering designs, results of detailed measurement survey (DMS), and consultations with affected people (APs); (ii) include all actual mitigation measures and APs' right and entitlements of compensation, allowances, and livelihood restoration measures in the RPs; and (iii) estimate actual resettlement costs according to results of the DMS. All resettlement activities must be implemented in compliance with the updated RPs.

b. Implementation Arrangements

67. The consultant will be recruited as an individual consultant in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

3. Dong Hoi Coastal Management

a. Scope of Work

68. The project will provide two assignments: hydrodynamic study and Bao Ninh dune restoration and protection study.

69. **Hydrodynamic study.** The consultant will assist the provincial authority of Quang Binh province in the following tasks:

- (i) Evaluate stability in the Nhat Le river mouth and the historical evolution of the mouth and its adjacent beaches.
- (ii) Identify the causes of beach erosion and the mechanisms of beach erosion, taking into account impacts from changes in the upstream reaches and watershed and human activities on the beach.

- (iii) Carry out additional bathymetrical survey and hydrodynamic survey at the study area.
- (iv) Implement mathematical modeling (at least 2D) for Nhat Le river mouth.
- (v) Study the evolution of the river mouth and analyze impacts of various options to defend against erosion and stabilize the river mouth.

70. **Dune restoration and protection study.** To restore the coastal sand dune system, several technical steps are recommended:

- (i) Prepare a topographical map with scale of 1:1000 for the whole sand dune system.
- (ii) Assess the current status of the sand dune system and its surface vegetation.
- (iii) Sample and analyze the sediment on the sand dune at representative locations.
- (iv) Propose technical solutions to restore the dune at the damaged locations and to replant the vegetation layer on the dune surface. Restoring of the dune system and replanting could take 5 to 10 years. In the first few years, it may require maintenance and additional supplying of sand to the dune and monitoring plants on dune face.
- (v) Prohibit further resort preparation work including flattening of the dune area and removal of existing vegetation at the plots, which are not developed yet. This would be in line with regulations proposed by the Quang Binh provincial people's committee.

71. Five corridors have been cut through the dunes, average size 100 x 70 x 3 m, or a volume of sand removed of approximately 100,000 cubic meters (m³). It is proposed to restore the dunes using half of this sand volume, or 50,000m³ against unit costs of VND 80,000/m³ or US\$4/m³. Replanting then would be needed over a surface area of approximately 30,000m² against unit costs of VND 20,000/m².

b. Implementation Schedule

72. The consulting services will be financed by grant funds from the Urban Climate Change Resilience Trust Funds (UCCRTF) under the Urban Financing Partnership Facility.²¹ The two assignments will be undertaken in parallel with Assignment A completed in one year. It is envisaged that Assignment B will be undertaken over a 5 year period with years 2 to 5 largely involved with dune replanting and stabilization. A team of international and national consultants will be engaged through firm(s) using quality- and cost-based selection procedures (quality:cost ratio of 90:10) in accordance with ADB's *Guidelines on the Use of Consultants* (May 2015, as amended from time to time). Civil works contract(s) will be procured using national competitive bidding procedures in accordance with ADB's *Procurement Guidelines* (2013, as amended from time to time).

4. Hoi An Flood Forecasting and Warning System

a. Scope of Work

73. Currently, flood crisis managers in the river basin have to prepare for and react to a flood threat based on common knowledge and experience, and using available data. Given the

²¹ Financing partners: The Rockefeller Foundation and the Governments of United Kingdom and United States. Administered by the Asian Development Bank.

existing quality and reliability of the monitoring and forecast information, they have to deal with large uncertainties. This leads to short warning times, a lower probability of detection and higher false alarm rates than necessary, given the physical conditions in the river basin, the coastal waters and the prevailing meteorological conditions. Improving the forecasting and warning services but also the response capability of the government and society will reduce the impact of meteorologically induced natural hazards in the area. The establishment of such concrete improvement is the key objective of this project.

74. The improvement of the current meteorological and hydrological forecasting system should increase the lead time and accuracy of the river flood, flash flood and tidal and storm surge forecasts. Also land slide risks should be forecasted more effectively. The upgrade of the FFWS should build on the current operational flood management and flood crisis management procedures, and extend its possibilities. Existing data feeds and forecasting models should be connected to the system, but the FFWS should also allow for extension with other models and technology. An open system approach should be provided not to restrict further development in the future.

75. The proposed FFWS will consist of a system with a central database linked to hydrological and hydrodynamic models and relevant data sources. The FFWS will forecast water levels based on current hydrological situation and weather forecasts. The FFWS will support the operator in decision making about the most effective flood management strategy under prevailing and foreseen conditions. This will have to include optimization of reservoir operation in real-time, taking into account the different interests (energy production, irrigation, flood prevention). The application software shall be customized with user-friendly interfaces: map, graph and schematic interfaces. The client should be able to independently extend the system with new data sources, models, displays etc. The following major tasks were identified to be accomplished by the consultants:

- (i) Review current monitoring, forecasting, warning and response systems and organization
- (ii) Enhancement of hydro-meteorological monitoring networks
- (iii) Improvement of meteorological and hydrological forecasting systems
- (iv) Improvement of the flood warning and crisis communication system, and strengthening of the flood management and response capability within government and society
- (v) Project implementation, technology transfer and capacity building
- (vi) Support & maintenance

b. Implementation Arrangements

76. The consulting services will be financed by grant funds from the Urban Climate Change Resilience Trust Funds (UCCRTF) under the Urban Financing Partnership Facility.²² A team of international and national consultants will be engaged through firm(s) using quality- and cost-based selection procedures (quality:cost ratio of 90:10) in accordance with ADB's *Guidelines on the Use of Consultants* (May 2015, as amended from time to time). Civil works contract(s) will be procured using national competitive bidding procedures in accordance with ADB's *Procurement Guidelines* (2013, as amended from time to time). The following international experts will be required to successfully implement the project:

²² Financing partners: The Rockefeller Foundation and the Governments of United Kingdom and United States. Administered by the Asian Development Bank.

- (i) Flood and drought forecasting / climate change specialist
- (ii) Catchment and river modeller
- (iii) Coastal modeller
- (iv) Forecasting systems development specialist
- (v) Emergency communication & management / community engagement specialist
- (vi) Software developer
- (vii) IT specialist
- (viii) Flood management specialist
- (ix) Institutional specialist
- (x) Capacity Building specialist/Training advisor

5. External Financial Audit Services

a. Scope of Work

77. The objective of audit assignment is to ensure that ADB, on an annual basis, is provided with the following reliable, comprehensive, and timely information: (i) audited project financial statements (APFS), (ii) specific additional audit opinions, and (iii) management letter. ADB requires these documents to be provided in English.

78. **Audited project financial statements.** The EAs/IAs are responsible for preparation and consolidation of APFSs. The Auditor is to express an opinion on the accompanying statements based on the audit. The accounting standard adopted should be specified in the annual audited financial statements. The content of the financial statements is expected to include:

- (i) a summary of all sources of funds, as well as expenditures against a classification system that is responsive to the project's objectives both for the current fiscal year and cumulative to date, showing ADB funds and counterpart fund and funding from other sources separately;
- (ii) a summary of expenditures shown under the main project components and by main categories of expenditures, both for the current fiscal year and accumulated to date;
- (iii) a balance sheet showing accumulated funds of the project, bank balances, other assets of the project, and liabilities, if any; and
- (iv) supporting schedules to the financial statements which at least include: (a) a reconciliation of the amounts shown as "received by the project from the ADB" with those shown as being disbursed by ADB, and (b) Statement of Expenditures (SOE) procedure (if applicable) listing individual SOE withdrawal applications by specific reference number and amount.

79. **Specific additional audit opinions.** The auditors are engaged to provide an independent and objective opinion on whether the financial statements present a true and fair view, in all material respects, in accordance with the applicable financial reporting framework. The auditors should also form an opinion from the audit evidence obtained, and clearly express that opinion through a written report. The auditor's opinion is necessary to establish the credibility of the project financial statements.

80. **Management letter.** ADB requires the EA/IAs to provide a copy to provide a copy of the auditor's Management Letter, together with the APFS/AFS. At the minimum, this should include:

- (i) a general overview of the internal control systems of the project and the EAs, or an opinion on the management systems;
- (ii) an identification of material deficiencies or weaknesses in the project or EAs/IAs' internal controls over financial reporting or on the overall system of internal control;
- (iii) the auditor's recommendations for improvements or for rectification of identified weaknesses;
- (iv) the client's comments on the findings and recommendations; and
- (v) follow-up action/s or status to previously identified issues and findings, if any.

b. Implementation Arrangements

81. The auditor will need to follow procedures and methodology that conform to International Standards on Auditing. A national auditing firm will be engaged using least-cost selection method in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). The key experts will include (i) an audit director, (ii) an audit manager, (iii) two senior auditors, and (iv) two auditors.

6. External Monitoring

a. Scope of Work

82. The objective of is to assess relevance, efficiency, effectiveness and impact of the RPs implementation processes, and to suggest any corrective measures, if necessary. The external monitoring organization (EMO) will monitor and verify (i) compliance of RPs implementation with the approved RPs; (ii) achievement of resettlement goals, including livelihood restoration; and (iii) compliance with the EMP and progress toward the expected outcomes. If EMO identifies any non-compliance issues with the approved RPs and EMPs, relevant recommendations should be made to lead the development of a corrective action plan by the PMU.

83. The scope of services is to conduct (i) a baseline survey to establish a baseline data of APs before LAR; and (ii) periodical monitoring missions to verify that resettlement plans and environment management plans have been implemented in an effective and timely manner and in compliance with approved plans, and guidelines and regulations related to LAR and environment issued by the government and ADB. External specialists shall prepare and submit semi-annual monitoring reports including recommendations for courses of actions and corrective measures to the EA and ADB. The EMO could mobilize surveyors for conducting baseline survey and sample surveys.

b. Implementation Arrangements

84. Prior experience in conducting LAR and EMP external monitoring for development projects, including ADB-funded projects and familiarity with ADB Safeguards Policy Statement (2009) and relevant laws, regulations, and guidelines is an advantage. A professional team consisting of competent experts to implement the assignment includes two key experts: (i) social safeguard specialist/team leader, and (ii) environment safeguard specialist.

VII. SAFEGUARDS

A. Environment

86. The project is classified as Category B for environment in accordance with the ADB's Safeguard Policy Statement (2009). The potential environmental impacts of the proposed subprojects are not expected to cause irreversible adverse environmental impacts. Initial environmental examinations (IEEs) including environmental due diligence reports (annexed to IEEs) have been conducted. Potential impacts of climate change and/or natural hazards on the project were integrated into the IEEs with recommendations for consideration during the design stage, in particular with reference to construction standards on climate resilience.

87. Mitigation measures for identified impacts are included in the environmental management plans (EMPs) – which were prepared individually for each subproject. Initial costs for developing and implementing the EMPs have been estimated for inputs to project costing. Stakeholder consultations were conducted and grievance redress mechanisms (to facilitate resolution of complaints regarding the performance of the project, in terms of environment and involuntary resettlement) have also been established and included in the IEEs. At the detailed design stage, as IEEs including EMPs are updated and finalized, the proposed mitigating measures will be reviewed to ensure that environmental receptors are not adversely affected. The final estimated costs for implementing the EMPs will be integrated into the project costs. Government approval of the IEEs including EMPs will be made a condition to loan negotiation. The final EMPs, cleared by ADB (Manila), will form part of the contract bidding documents (Appendix 13). EMP implementation will be ensured by a designated environment officer in the EAs and IAs. The roles and responsibilities are detailed in the respective EMPs. Environmental considerations during design and allocation of sufficient budget for operation and maintenance will help mitigate potential adverse impacts during operation. Effective environmental monitoring at all stages of subproject implementation will be ensured. In compliance with ADB's information disclosure and consultation requirements, the safeguard documents will be posted on ADB's website.

B. Involuntary Resettlement

88. The safeguard category for involuntary resettlement is A in accordance with ADB's Safeguard Policy Statement (2009). Two (2) resettlement plans (RPs), one each for Dong Hoi City and Hoi An City have been prepared for the sub-projects with land acquisition and resettlement (LAR) impacts. For the Dong Hoi City, a total area of 173,940 m² of land will be permanently acquired and 375 households with 1,550 persons will be affected. For the Hoi An City subproject, a total of 711,374 m² of land will be permanently acquired and 645 households with 2,580 persons will be affected. There are a total of 539 severely affected households (AHs) and approximately 2,264 affected persons (APs), with 52 AHs (approximately 218 APs) in Dong Hoi City required to relocation, 311 AHs (approximately 1,306 APs) in Hoi An City with loss more than 10% of their total productive land holding and 176 AHs (approximately 739 APs) required to relocate. All other impacts are partial and temporary. The cost is estimated to be \$27,823,214, which includes base costs, allowances, administration, and contingencies. A cutoff date with extensive stakeholder consultation and participation has been established and will be confirmed after the project has been approved. Project information has been disclosed to APs throughout the project preparation and the public information booklet, which will be updated and again distributed to AHs during detailed measurement survey (DMS).

89. Resettlement documents have been prepared in consultation with local communities and are in accordance with ADB's Safeguard Policy Statement and government laws and regulations. The documents have been endorsed, approved and posted on the ADB website. A grievance redress mechanism will help to facilitate resolution of complaints regarding project performance. The resettlement plans will be updated and disclosed after detailed design and cleared by ADB prior to contract awards. Effective monitoring at all stages of subproject implementation will be ensured by submitting quarterly internal reports and semiannual external reports.

C. Indigenous Peoples

90. Indigenous peoples (IP) safeguards are not triggered by both the sub projects and the category is C in accordance with the requirements outlined in OM/F1 and ADB's Safeguard Policy Statement 2009; hence no separate IP plans are required to be prepared.

VIII. GENDER AND SOCIAL DIMENSIONS

91. A social, poverty and gender analysis was undertaken in accordance with the ADB guidelines. Information collected contributed to the project design, ensuring social inclusion of the poor and economically vulnerable as well as supporting the need for measures to mitigate the impacts of climate change on the urban and peri-urban populations. A gender action plan (GAP), participation plan (PP) and stakeholder communication strategy (SCS) were prepared, and input was provided into the summary poverty reduction and social strategy (SPRSS).

92. From the analysis conducted, the project is classified as General Intervention (GI). The project will result in improved health and access to climate change resilient infrastructure and urban environmental services in Dong Hoi and Hoi An to benefit the combined population of 206,138 residents including the 986 poor households, 495 of which are female headed households. By 2020 climate proofing and efficiency gains of Hoi An water supply will be adopted (cost revenue ratio for Hoi An water supply improved from 0.9 to 0.6 over the duration of the project), the number of households served by improved/new wastewater collection and treatment increased from 1,721 to 6,356 in Dong Hoi, coastal flooding risk reduced in Hoi An resulting in \$2.0 million per year reduced flood damage. There will be improved access and evacuation routes for Hoi An via climate proofed roads with 1:5 year flood protection and new pilot urban areas will have been developed in accordance with climate change resilient urban plans (serving new population of 9,000 residents in Hoi An and 13,000 inhabitants in Dong Hoi). Poor households who cannot afford to implement climate change mitigation improvements or connect to improved urban services will be assisted through the Women's Union Affordability Funds provided through the project.

93. This project is categorized as Effective Gender Mainstreaming (EGM). The GAP focuses on increasing women's participation in decision making at all levels of urban governance and service provision in Dong Hoi and Hoi An through female participation in project capacity building plans and training sessions. Capacity building will focus on four project groups i.e., (i) project-appointed staff, (ii) staff of collaborating and related agencies, (iii) staff of project implementing agencies, and (iv) staff of communes/wards in the cities including staff and representatives of Women's Union, Youth Union, and Farmer's Union. Capacity building will be developed based on gender equity with all sessions comprised of at least 30% women. Women residents of the two cities will benefit from the project through improved access to water

resources for irrigation and drinking water supply, increased connections to wastewater treatment systems and enhanced knowledge of climate-resilient household adaptations. The project will implement pro-poor initiatives to assist poor and vulnerable women to access wastewater treatment systems. The project will support female government staff and Women's Unions to build their knowledge of climate change impacts and mitigation measures.

94. **GAP Implementation Arrangements:** Implementation arrangements and estimated costs of the GAP have been integrated into the overall arrangements and total project budget. Additional costs have been allocated for affordability support funds and consultant interventions. PMUs have been established in Quang Binh URENCO for the Dong Hoi subproject and Quang Nam Water Supply and Drainage Company – Hoi An branch for Hoi An subproject. The PMUs, with guidance from the PPCs and support from the project implementation support consultant team, will be responsible for implementing the GAP. The PMU with assistance from the gender specialists will be responsible for monitoring the implementation of the GAP. An international social development and gender specialist (6 person-months) and 2 national gender experts (12 person-months total), together with other consultants, will support (i) gender and development training needs assessments, (ii) gender plan development for focal groups in each city, (iii) development of appropriate training materials, (iv) development of guidelines for Women's Unions affordability funds to support wastewater connections and climate change adaptation efforts, (v) the establishment of sex-disaggregated indicators for project performance monitoring and evaluation, and (vi) the promotion of gender equality in future hiring practices and promotion initiatives. PMUs will incorporate GAP monitoring in their progress reports to the government and ADB.

95. **GAP Budget:** GAP capacity building activities will be financed through the institutional capacity development component intended to (i) help ensure that project implementation will fully comply with ADB's policies and operational requirements; (ii) improve urban planning and management, climate change adaptation and mitigation, operation and maintenance, and financial management and cost recovery; and (iii) help local communities increase awareness of public health and environmental management. The gender consultants will be funded through the project consulting services budget. Affordability funds (\$ 200,000) to be managed by the Women's Union in each city will be funded through project activity budget.

Gender Action Plan – Design Phase

VIE: Urban Environment and Climate Change Adaptation Project Gender Action Plan (GAP)	
Project Outputs	Gender Design Measures and Targets
<p>1. Dong Hoi New and Improved Climate Change Resilient Urban Infrastructure</p> <p>1.1 Bao Ninh Urban Development</p> <p>1.2 Wastewater Management</p>	<ul style="list-style-type: none"> • 56,886 women will benefit from improved climate change resilience and urban infrastructure improvement in Dong Hoi • Effective gender-sensitive audio and visual materials developed to raise awareness for men and women at the ward/commune level of Dong Hoi Climate Change Action Plan through public meetings and discussions.^a • Viet Nam Women's Union (WU) to manage Affordability Funds for wastewater system connection and climate change adaptation measures for the 535 poor households including the 330 poor female headed households in Dong Hoi. • Support the existing WU role in emergency measures by including its management staff in the design of urban flood warning systems. • Men and women are trained in environmental protection, health awareness, and proper hygiene with 50% women and 50% men participants. • 30% women participate in project consultation meetings and focus group discussions. • At least 50% of facilitators of climate change mitigation measures and

VIE: Urban Environment and Climate Change Adaptation Project Gender Action Plan (GAP)	
Project Outputs	Gender Design Measures and Targets
	<p>adaptation planning sessions are women.</p> <ul style="list-style-type: none"> • At least 25% of unskilled laborers employed in project construction are women with equal pay, safe working environment and separate/proper toilet facilities. • At least 30% of Quang Binh URENCO staff trained in operational management systems are women. • Gender responsive physical design features addressing safety concerns, such as street lighting, will be included in the Bao Ninh Urban Development component.
<p>2. Hoi An New and Improved Climate Change Resilient Urban Infrastructure</p> <p>2.1 Co Co Urban Development</p> <p>2.2 Integrated Flood Management</p> <p>2.3 Water Supply Improvement</p>	<ul style="list-style-type: none"> • 46,532 women will benefit from improved climate change resilience and urban infrastructure improvement in Hoi An. • Effective gender-sensitive audio and visual materials developed to raise awareness for men and women at the ward/commune level of Hoi An urban development plan through public meetings and discussions. • When designing Lai Nghi conjunctive use scheme (drinking water/irrigation/recreation), ensure 50% women's participation in consultations to address residents' concerns about water borne health issues, hygiene and sanitation. • Flood forecast and warning system covering Vu Gia and Thu Bon river basin established with minimum of 30% WU management staff/community members input in design (zero baseline). • Flood forecast and warning system covering Vu Gia and Thu Bon river basin established with minimum of 30% WU management staff/community members input in implementation (zero baseline). • Men and women are trained in environmental protection, health awareness, and proper hygiene with 50% women and 50% men participants. • Support the Hoi An WU recycling income generation program to involve another 100 women. • Facilitation course on climate change mitigation measures and adaptation planning, of which 50% of the trainees are female. • At least 20% of unskilled labourers employed in project construction are women with equitable pay, safe working environment and separate/proper toilet facilities. • Gender responsive physical design features addressing safety concerns, such as street lighting, will be included in the Bao Ninh Urban Development component.
<p>3. Improved competencies in urban environmental management and climate change adaptation.</p>	<ul style="list-style-type: none"> • Quang Binh PMU staffing (12 positions with some positions still to be filled) increased to 30% women (baseline 17% in September 2013) with at least one woman out of three in management. • Female staff increased to 35% (baseline 24%) in Quang Nam WSDC • Female staff increased to 50% (baseline 42%) in Hoi An branch of Quang Nam WSDC • Female staff increased to 50% (baseline 40%) in Quang Binh URENCO with 4 or 25% women (baseline 0%) in management • All PMU/project related agency/government staff trained in gender awareness and GAP implementation, monitoring and reporting. • Gender training programs include integration of gender analysis into climate change strategies, action plans and screening criteria.^c • Knowledge and skills of at least 40 staff of Quang Binh and Quang Nam PPCs are strengthened in urban management, environmental protection, and climate change adaptation (at least 30% of participants are women) • At least 20 PMU staff are trained on project administration and implementation, particularly on financial management, procurement, safeguards, gender, and monitoring and reporting (at least 30% of participants are women)^b • All WU city representatives, commune/ward leaders and commune/ward environmental staff receive training in environmental management;

VIE: Urban Environment and Climate Change Adaptation Project Gender Action Plan (GAP)	
Project Outputs	Gender Design Measures and Targets
	climate change adaptation, assessment, and planning; design of improved disaster managements systems, public health awareness, and proper hygiene and sanitation. <ul style="list-style-type: none"> An international gender specialist (6 person-months) and two national gender training specialists (6 person-months each) will assist gender focal points in Dong Hoi and Hoi An PMUs to coordinate the implementation and monitoring of GAP, ensure the collection of sex disaggregated data, provide quarterly/bi-annual GAP reports using ADB's GAP progress report template, and feed data into mid-term review/PCR.

^a "Gender-sensitive" refers to materials that take into account both women's and men's interests and needs (based on their different roles and responsibilities), and that are presented in such a way that both women and men can understand the information being communicated and do not contain contents or images that reinforce gender stereotypes.

^b Operation and maintenance plans will be developed under the project. Wherever available, such plans will seek to provide employment opportunities for women. The international social and gender specialist will determine appropriate targets during implementation.

^c "Screening criteria" refers to climate change projects seeking climate finance support such that one of the screening criteria include "analysis of gender and gender impacts".

ADB = Asian Development Bank; GAP = gender action plan; PCR = project completion report; PMU = project management unit; PPC = provincial people's committee; URENCO = Urban Environment Company; WSDC = Water Supply and Drainage Company; WU = women's union.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

DESIGN AND MONITORING FRAMEWORK

Impacts the project is aligned with: Urban environment in Dong Hoi and Hoi An improved (Socio-economic Development Plan 2011–2015) ^a			
Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
Outcome 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
Outputs 1. New and	By 2022: (2014 baselines: 0 for 1.1a–c.)		

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
improved climate change–resilient urban infrastructure in Dong Hoi	<p>1.1 New urban area in Bao Ninh peninsula developed including:</p> <p>1.1a. New urban area development plan is refined, incorporating climate change resilience considerations</p> <p>1.1b. 5.8 km of connecting roads with sewerage and drainage networks are constructed</p> <p>1.1c. Measures to protect the coastal dune complex from erosion are developed and implemented</p> <p>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)</p>	<p>1.1a and c. Quang Binh PPC annual report</p> <p>1.1b and d. Quang Binh URENCO construction report</p>	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
	<p>By 2022: (2014 baselines: 0 for 1.2a–b)</p> <p>1.2 Wastewater management improved including:</p> <p>1.2a. 25 km of tertiary sewerage networks are constructed</p> <p>1.2b. 10 combined sewer overflows and 17 pumping stations with telemetry systems are constructed</p> <p>1.2c. 7,000 wastewater connections are installed, including 1,500 households supported by the revolving fund (2014 baselines: NA)</p>	<p>1.2a–b Quang Binh URENCO construction report</p> <p>1.2c Quang Binh URENCO annual report</p>	
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> <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 m³ through dredging</p>	<p>2.1 Quang Nam WSDC construction report</p> <p>2.2 Quang Nam WSDC construction report</p>	Stakeholders in the river basins do not cooperate to operationalize the flood warning and management system in Hoi An

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2.2b. Flood forecast and warning system covering Vu Gia–Thu Bon river basin is established 2.2c. 5.4 km of Provincial Road 608 is elevated to create a flood evacuation route		
	By 2022: (2014 baselines: 0) 2.3 Water supply improved including: 2.3a. Storage capacity of Lai Nghi reservoir is increased by 530,000 m ³ through dredging 2.3b. New water intake is constructed for Lai Nghi reservoir for protection from salinity intrusion 2.3c. Management information system is introduced for nonrevenue water reduction	2.3 Quang Nam WSDC construction report	
3. Improved competencies in urban environmental management and climate change adaptation	By 2022: (2014 baselines: NA) 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) 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) 3c. Programs to raise awareness of environmental protection and public health are conducted (with equitable participation by males and females)	3a–b. Quang Binh URENCO and Quang Nam WSDC training program report 3c. Quang Binh URENCO and Quang Nam WSDC awareness program report	Staff assigned to project by government are frequently rotated
Key Activities with Milestones			
<p>1. New and improved climate change-resilient urban infrastructure in Dong Hoi</p> 1.1 New urban area in Bao Ninh peninsula developed 1.2 Wastewater management improved 1.1.1, 1.2.1 Complete detailed designs and update EMPs and resettlement plans by 2017 1.1.2, 1.2.2 Complete land acquisition and resettlement activities by 2019 1.1.3, 1.2.3 Complete procurement of works and goods by 2020 1.1.4, 1.2.4 Complete civil works and equipment installation by 2022 1.1.5 Establish and implement coastal and dune protection measures by 2022 <p>2. New and improved climate change-resilient urban infrastructure in Hoi An</p> 2.1 New urban area along the Co Co River developed 2.2 Integrated flood management established 2.3 Water supply improved 2.1.1, 2.2.1, 2.3.1 Complete detailed designs and update EMPs and resettlement plans by 2017 2.1.2, 2.2.2, 2.3.2 Complete land acquisition and resettlement activities by 2019 2.1.3, 2.2.3, 2.3.3 Complete procurement of works and goods by 2020 2.1.4, 2.2.4, 2.3.4 Complete civil works and equipment installation by 2022 2.2.5 Develop a flood forecast and warning system and make it operational by 2021 2.3.5 Reduce nonrevenue water by 2020			

Key Activities with Milestones	
2.3.6 Introduce management information systems and make them operational by 2021	
3. Improved competencies in urban environmental management and climate change adaptation	
3.1	Establish PMUs with qualified staff by 2016
3.2	Recruit and mobilize consultants by 2017
3.3	Review and update the financial cost recovery and management proposals by 2018
3.4	Develop training programs and manuals by 2019
3.5	Conduct training for PPCs, Quang Binh URENCO, and Quang Nam WSDC by 2022
3.6	Develop public awareness programs and materials for beneficiaries by 2019
3.7	Conduct awareness programs by 2022
Inputs	
Asian Development Bank's ordinary capital resources:	\$100,000,000
Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility:	\$ 4,000,000
Government:	\$ 40,160,000
Assumptions for Partner Financing	
Not applicable.	

EMP = environmental management plan, km = kilometer, m³ = cubic meter, NA = not available, PMU = project management unit, PPC = Provincial People's Committee, URENCO = urban environment company, WSDC = water supply and drainage company.

^a 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.

B. Monitoring

1. Project performance monitoring

96. To monitor the progress of the project in achieving the planned outcome and outputs, the PMUs will establish and maintain a project performance management system (PPMS), which will be designed to permit adequate flexibility to adopt remedial action regarding project design, schedules, activities, and development impact. The PPMS will adopt the following agreed indicators: (i) physical progress of subproject implementation, (ii) results of capacity development program, (iii) household connections to the wastewater systems, (iv) improvements in non-revenue water, (v) reduction in flooding risks, and (vi) social and poverty development. At project inception, the PMUs, in consultation with the EAs, will develop comprehensive PPMS procedures to systematically generate data on inputs and outputs of the project activities, and the socioeconomic, health, and environmental indicators to measure project impact.

97. PMUs will refine the PPMS framework, confirm achievable targets, firm up monitoring and recording arrangements, and establish systems and procedures no later than six months after project implementation begins. Baseline and progress data will be reported at the requisite time intervals by the IAs to the PMUs, including annual reporting on the water resources and environmental management plan. PMUs will be responsible for analysing and consolidating the reported data through its management information system (which will be proposed), and for reporting the outcome to ADB through the quarterly progress reports.

2. Compliance monitoring

98. ADB will undertake regular review mission to assess the status of compliance of the project and the EAs with the loan covenants related to policy, legal, economic, financial,

environmental, and institutional elements. Non-compliance issues identified during the ADB review missions will be specified in the quarterly progress reports together with the recommended courses of action.

3. Safeguards monitoring

99. **Involuntary Resettlement.** The PMUs with support from the project implementation support consultant are responsible for internal monitoring of the RP implementation. They will supervise and manage the monitoring of resettlement activities and implementation arrangements. Quarterly monitoring reports will be prepared by the PMU for submission to the EAs and ADB. The report includes progress on the status of the RP implementation, information on location and number of people affected, and assistance provided to displaced people. An outline of the monitoring report is in Appendix 3. The ADB review missions will monitor and assess the resettlement activities during the project implementation period.

100. The monitoring of RP implementation is intended to (i) ensure that the standard of living of affected persons are restored or improved, (ii) determine that the resettlement objectives are being met, (iii) assess that rehabilitation and compensation elements are sufficient, (v) identify problems and risks, and (vi) come up with adequate measures to mitigate resettlement problems.

101. Consequently the range of activities and issues that need to be recorded and verified, include: (i) compensation, allowance payments and delivery of assistance measures; (ii) re-establishment of displaced person settlements and livelihoods; (iii) reaction of displaced persons, to resettlement and compensation packages; and (iv) re-establishment of income levels.

102. The principal indicators for internal monitoring of resettlement activities include:

- (i) timely and complete disbursement of compensation to affected households according to the compensation policy agreed in the RP,
- (ii) timely income restoration and rehabilitation allowances and measures,
- (iii) allocation of replacement land,
- (iv) public information dissemination and consultation procedures,
- (v) adherence to grievance procedures and identification of outstanding issues that require further attention and resolution,
- (vi) attention given to the priorities of affected households regarding the options offered,
- (vii) completion of resettlement activities required before the award of civil works contracts,
- (viii) participation of poor and vulnerable households throughout the process, and
- (ix) restoration and improvement of socioeconomic conditions of affected households.

103. The External Monitoring Agency will submit to PMU semi-annual reports to be shared with ADB. External monitoring will focus on the following:

- (i) DMS is carried out properly.
 - a. Affected lands and assets shall be measured correctly; the results of DMS shall be disclosed publicly.

- b. Complaints or questions of affected HHs on the DMS results shall be settled timely and satisfactorily.
- (ii) Consultations with AHs and their knowledge on the entitlements.
 - a. Relevant documents (RF, RP, decrees/decisions related to land acquisition, compensation, allowances and resettlement) shall be provided to the affected HHs.
 - b. AHs are informed and consulted adequately about the land acquisition, and resettlement; schedule of resettlement implementation; income restoration, livelihood rehabilitation, and grievance redress.
- (iii) Compensation and assistances provisions (cash for land or land for land compensation).
 - a. All AHs shall be compensated adequately and satisfactorily to replace assets affected before the land is acquired.
 - b. Compensation for structure affected shall be equal to replacement prices of materials and labor based on the standards and typical structures of works, and free from reduction or salvaging of old materials.
 - c. Affected business shall be compensated compliantly following the provisions in the approved RP.
 - d. All types of assistances/allowances as envisaged in the approved RP shall be provided accordingly to the affected HHs.
- (iv) Selection and development of resettlement sites
 - a. Resettlement sites are selected (location, price of the plot, etc.) and developed (lay-outs, infrastructures provisions, etc.) with full consultations with the resettlers, including host-communities.
 - b. Resettlement sites are with sufficient infrastructures; resettlement is fully completed before civil work is commenced.
 - c. Selected resettlement site(s) is suitable for livelihood rehabilitation and development.
- (v) Income restoration and livelihood development
 - a. Provided assistances for production development (trainings, job creation, etc.).
 - b. Restoration of production of AHs, particularly of severe AHs, relocation AHs and vulnerable AHs.
 - c. Level of income restoration, living standard and livelihood development of the affected HHs after land acquisition and compensation/resettlement. Problems that AHs are facing on restoring the affected income and livelihoods.
- (vi) Level of AHs satisfaction
 - a. Assessing the level of satisfaction of AHs in different aspects in RP implementation (information dissemination and public consultation,

DMS, compensation payment, compensation unit rate, resettlement site selection and development, rehabilitation measures and recovery of living conditions etc.).

- b. Assessing the level of satisfaction of AHs on the grievance mechanism and grievance redress.

(vii) Coordination between the resettlement activities and construction schedule

- a. Civil works can only be started when (i) land acquisition and resettlement activities (compensation, assistance and relocation) of any component of works have been completed; (ii) the project area is clear of issues and problems; and (iii) the income restoration program is in place.

(viii) Gender Issues

- a. Participations of women in various land acquisition and resettlement activities; impacts of land acquisition and resettlement on women's livelihoods; issues of income restoration of women.

104. **Environment.** The IAs will prepare and submit to EAs quarterly reports on the environmental parameters and any other environment issue identified during the course of implementation. The report will cover environment performance based on the implementation of the EMP and the environmental monitoring plan. The EAs, through the project implementation support consultants, will be responsible for the consolidation and submission of the reports to ADB in accordance to the format and process described in the IEEs and EMPs.

105. **Gender and social dimensions:** Monitoring of the implementation of the GAP will be undertaken by the IAs and PMUs. Progress in the achievement of the outputs in the GAP will be the responsibility of the PMU gender focals. The PMUs will develop a PPMS, establishing sex-disaggregated indicators for project performance, monitoring and evaluation. The PPMS will include monitoring tools, reporting templates (including use of the ADB GAP progress report template) and output indicators, assisted by the consultants (international and national gender specialists). The IAs will submit periodic (minimum bi-annual) reports to the EAs and ADB using these tools, templates and indicators. The GAP budget will include the cost of monitoring and evaluation.

106. Monitoring of the pro-poor and social inclusion design measures, indicated in the SPRSS, Participation Plan, and Stakeholder Communication Strategy, will be the responsibility of the PMUs. Periodic activity reports will be submitted by the IAs to the PMUs. The PMUs will be assisted by the project implementation support consultant in devising the monitoring indicators and reporting templates in assessing progress of the social action plans.

C. Evaluation

107. The implementation of the project will be jointly reviewed at least twice a year by the government and the ADB. The project review will cover (i) the performance of the EAs, IAs, consultants, and contractors; (ii) physical progress of subprojects; (iii) effectiveness of the capacity development and training programs, and awareness promotion programs; (iv) compliance with loan covenants; and (v) assessment of project sustainability in terms of

technical and financial aspects.

108. Aside from the regular joint project reviews, the government and ADB will conduct a comprehensive midterm review of project implementation after three years of operation. This is intended to identify key issues and constraints that hinder smooth project implementation and to come up with appropriate remedial courses of action.

109. Within 6 months of physical completion of the project, the EAs will submit a project completion report to ADB.²³

D. Reporting

110. The EAs will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system (an outline of the progress report is in Appendix 4); (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure the project continue to be both viable and sustainable, project accounts and the EA's AFSs, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

111. The preparation and adoption of a stakeholder communication strategy (SCS) is required by ADB to ensure inclusiveness, transparency, timeliness and the meaningful participation of stakeholders in the project.²⁴ The SCS essentially provides an agreed communication platform for all key stakeholders particularly between the project's affected groups and the EAs, IAs, and ADB to ensure that the former's views and interests are fully integrated into the project design, implementation, and impacts.

112. The SCS promotes select messages targeted at key stakeholders consistent with established communication objectives as to what perspectives, actions and changes should be promoted to ensure the project's success. The SCS ensures that vulnerable groups, such as the poor, elderly, indigenous and ethnic groups, and women, whose risk being marginalized, are provided with opportunities for communication and feedback during subproject design and implementation. In this way, the SCS serves to inform and support community development, enhance government agency capacity to manage project outcome, and enhance project benefits and mitigate negative impacts. Similar to the participation plan (PP), the SCS builds on the data in the stakeholder analysis and summary of consultation and participation. It complements the PP to ensure effective participation of stakeholders in the project.

113. Key stakeholders, who are essential to engage to achieve project objectives and lessen

²³ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

²⁴ Meaningful participation is defined as a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues. ADB Safeguard Policy Statement 2009.

project specific risks and challenges, have been identified. Stakeholders include (i) government agencies responsible for the design, management, and implementation of the project (MOF, MPI, PPCs, and WU); (ii) utility companies who provide essential urban infrastructure services and facilities (Quang Nam URENCO and Hoi An WSDC); (iii) community organizations who assist with providing community-level environmental and health sector improvements and employment related opportunities and assistance; (iv) residents in wards and communes; and (v) local media. The strategy serves to inform and support community development, enhance government agency capacity to manage project outcome, and enhance project benefits and mitigate negative impacts.

114. The SCS is designed to ensure (i) a regular flow of reliable project information, and (ii) inclusion of vulnerable groups in benefit distribution in project implementation. The following table outlines and identifies key messages, means of communication, and timeline of delivery for various stakeholders during the project cycle.

Objective	Key Risks/Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources (Human, \$)
<p>Ensure a regular flow of project information</p> <p>Ensure a two way communication flows, information sharing and feedback between EA/IA and stakeholders and affected peoples to ensure social inclusion, effective risk mitigation and maximization of flow of project benefits to target groups including local residents, poor HHs and women</p>	<p>Trust of information</p> <p>Local language/culture</p> <p>Literacy levels</p> <p>Managing expectations</p> <p>Poor timing of communication</p> <p>Poor quality communication products and activities</p> <p>Lack of familiarity with climate change</p> <p>Feedback not addressed</p>	<p>Target project beneficiaries</p> <p>PAPs, women, and poor households</p> <p>Commune/ward officials</p> <p>Women's Union</p> <p>Agricultural cooperatives</p> <p>Private sector/business organizations and entrepreneurs</p> <p>Local government</p> <p>Local media</p>	<p>Project design, key project benefits, implementation arrangements, potential project impacts (both positive and negative) including pro-poor measures</p> <p>Planned mitigation measures (including compensation rates, entitlements and grievance redress mechanism)</p> <p>Target beneficiaries are informed and encouraged to increase connections to water, wastewater, and waste collection</p> <p>Project progress</p> <p>Project is aligned with government national policies in SEDP, 2011-2020, MDG goals,</p>	<p>Project consultation workshops, seminars, FGDs and public meetings in communes and wards</p> <p>Feedback from target beneficiaries and affected peoples including WU is recorded, reported and communicated by PPTA to EAs and IAs and ADB and actioned/reflected in project design and implementation</p> <p>District resettlement committee meetings and/or meetings with PAPs</p> <p>Information in Vietnamese language through: (i) traditional forms, including information booklets and sheets;(ii) local media and public notices; and (iii)</p>	<p>Ongoing prior to implementation of activities</p> <p>Project detailed design</p> <p>Ongoing during civil works</p>	<p>EAs/IAs/P MUs</p> <p>WUs</p> <p>Wards and communes</p> <p>Agricultural cooperatives</p>	<p>Included in project budget</p>

Objective	Key Risks/Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources (Human, \$)
			gender framework, environmental policies and ADB Country Partnership Strategy	recognized web-sites, including project web-site Bimonthly project progress reports delivered at commune/ward level. Feedback communicated to PMUs WU and agricultural cooperative disseminate information to poor farmers and HHs through their network Feedback communicated to PMUs			
Enhance climate change knowledge, adaptation measures, and emergency responses and induce positive behavioral change towards environmental and natural	Limited local knowledge and low awareness of in the business community and among local residents about environmental and natural resource protection and the importance of government climate	Target project beneficiaries PAPs, commune and ward officials Women WU Agricultural cooperatives Private sector	Climate change impacts Details of climate change capacity building programs available to local officials and community members Climate change adaptation case studies, examples,	Ward and commune meetings – public meetings Information in Vietnamese language through (i) traditional forms, including information booklets and sheets; (ii) local media and public notices; and (iii) recognized	Ongoing from detailed project design to project completion	EAs/IAs/PMUs WUs Agricultural collectives Wards, communes and PAPs	Budget included in the project budget

Objective	Key Risks/ Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources (Human, \$)
resource protection	<p>change programs and its risks and mitigation</p> <p>Lack of skills and capacity among government officials about climate change</p> <p>Lack of government resources to invest in climate change programs</p> <p>Local language and culture barrier</p> <p>Literacy levels</p> <p>Managing expectations</p> <p>Capacity building in climate change does not take place at the institutional level</p> <p>Climate change knowledge is not disseminated to those experiencing the greatest impacts</p>	<p>and business organizations and entrepreneurs</p> <p>Local government</p> <p>Local media</p>	<p>demonstrations, research ongoing</p> <p>Emergency response measures including early warning systems</p> <p>Conservation of precious water resources</p>	<p>web-sites, including project web-site.</p> <p>Community preparation and community-level training</p> <p>Public media campaign</p>			

Objective	Key Risks/ Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources (Human, \$)
	<p>Climate change knowledge does not lead to adaptation and mitigation, especially among the poor and vulnerable</p> <p>Investments are not made in improved emergency preparedness and warning systems</p>						
Ensure a regular flow of information to highlight the project's benefits for women including opportunities for capacity building training	<p>Trust of source of information</p> <p>Language/culture</p> <p>Literacy level</p> <p>Managing expectations</p> <p>Use of inappropriate means of communication and information material</p> <p>Lack of awareness and interest among women</p>	<p>Women</p> <p>WU</p> <p>NGOs</p>	<p>Project includes special measures designed to ensure women's access to the project benefits as well as mitigate risks to women</p> <p>Capacity building through training for institutional and people will benefit women through equitable opportunities</p>	<p>WU</p> <p>EAs, IAs, PMUs, and project steering committees</p> <p>Public consultations and meetings, FGDs and socio-economic surveys</p> <p>Gender awareness training and information materials and workshops for PMUs/IAs and WU, wards and communes</p> <p>Capacity building training</p>	From project start to completion	<p>EAs/IAs/PMUs</p> <p>WU</p> <p>Wards, communes, and PAPs</p>	Budget included in the project budget

Objective	Key Risks/ Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources (Human, \$)
				sessions for WU Local media and public notices, social media and project websites			

EA = executing agency, FGD = focus group discussion, HH = households, IA = implementing agency, MOF = Ministry of Finance, MPI = Ministry of Planning and Investment; NGO = non-government organization; PAPs = project affected peoples; PMU = project management unit; WU = Women's Union

X. ANTICORRUPTION POLICY

115. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.²⁵ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.²⁶

XI. ACCOUNTABILITY MECHANISM

116. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.²⁷

XII. RECORD OF PAM CHANGES

{All revisions/updates during course of implementation should retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.}

²⁵ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²⁶ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

²⁷ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

FINANCIAL MANAGEMENT ASSESSMENT

EXECUTIVE SUMMARY

1. The overall assessment of the inherent and control risks of the project's financial management is Moderate based on (i) the 2013 Public Administration Performance Index (PAPI) scores of Quang Binh Province (one of 16 “best performers”) and Quang Nam Province (one of 15 provinces rated “high average”), with both ranking highly among Vietnam’s 63 provinces, and (ii) the staff expertise of the executing agencies (EAs), both of whom have implemented ADB projects, and their commitment to oversee the project financial managements of the implementing agencies (IAs). While neither IAs has implemented an ADB-funded project, both have experience in infrastructure construction financed by both domestic and external funds, and will receive training as part of the project on ADB’s disbursement procedures and advanced financial management to ensure successful implementation. In terms of accounting and auditing procedures, the existing financial information system (i.e., accounting, reporting, and internal control system) of the EAs and IAs were found to be complete. The Department of Finance of each province will supervise the project financial management of the IAs.

I. INTRODUCTION

2. This Financial Management Assessment (FMA) has been prepared in accordance with ADB’s *Financial Management Technical Guidance Note* (May 2015) to determine the institutional capacity of each EA and IA, funds flow arrangements, staffing, accounting policies and procedures, internal and external auditing arrangements, reporting and monitoring aspects, and information system. The Financial Management Assessment Questionnaire (FMAQ), initially proposed and prepared by ADB, was slightly modified and translated into Vietnamese, where appropriate, to adapt to the specific conditions of the subprojects and formed the basis for the assessment. Issues or risks associated with each entity’s financial management systems were identified and appropriate risk mitigation measures were recommended for adoption as part of the project design.

3. The results of the FMAQs were analyzed with particular focus on the accounting and auditing procedures and staff expertise. In terms of accounting and auditing procedures, the existing financial information system (i.e., accounting, reporting, and internal control system) is complete and applicable for domestic construction entities. The FMAQs were completed in 2014 and are attached as appendices.

II. BRIEF PROJECT DESCRIPTION

4. The project is composed of several subprojects in two cities in the Vietnamese provinces of Quang Nam and Quang Binh. The expected impact of the *Urban Environment and Climate Change Adaptation Project* will be improved urban environment in Dong Hoi (in Quang Binh) and Hoi An (in Quang Nam). The outcome of the project will be improved access to climate change resilient urban infrastructure in both cities. Table 1 summarizes the project components/outputs.

5. The subprojects in Quang Nam will be implemented by the Provincial People’s Committee (PPC) of Quang Nam as EA and the Provincial Water Supply and Drainage Joint Stock Company (QN WSDC) as IA. The subprojects in Quang Binh will be implemented by the Quang Binh PPC as EA and the Quang Binh Urban Environment Company (QB URENCO) as IA.

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Dong Hoi new and improved climate change resilient urban infrastructure	32.14
2. Hoi An new and improved climate change resilient urban infrastructure	82.79
3. Improved competencies in urban environmental management and climate change adaptation	5.31
Subtotal (A)	120.24
B. Contingencies^c	17.42
C. Financing Charges During Implementation^d	6.52
Total (A+B+C)	144.18

^a Includes taxes and duties of \$10.24. The amount of \$10.05 million is the taxes and duties that will be paid by the government through exemption. The remaining \$0.19 million is on the grant to be financed from grant resources.

^b In mid-2015 prices.

^c Physical contingencies computed at 10% for civil works, field research and development, training, surveys, and studies; 11% for land acquisition and resettlement in Dong Hoi; 15% for land acquisition and resettlement in Hoi An; and 5% for grant-aided studies. Price contingencies computed at an average 1.0% in 2015, 1.4% in 2016 to 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.

^d Includes interest and commitment charges. Interest during construction for ADB loan has been computed at the 5-year fixed swap rate for London interbank offered rate 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.

6. The project is estimated to cost \$144.18 million over a 6-year period from 2016 to 2022, including taxes of \$10.24 million, physical contingencies of \$12.46 million, price contingencies of \$4.22 million, and financial charges during implementation of \$4.96 million. The project will be financed through a \$100 loan from ADB's Ordinary Capital Resources, a \$4 million grant from the Urban Climate Change Resilient Trust Fund and \$40.18 million from Government resources. The tentative financing plan is in Table 3.

Table 2: Financing Plan

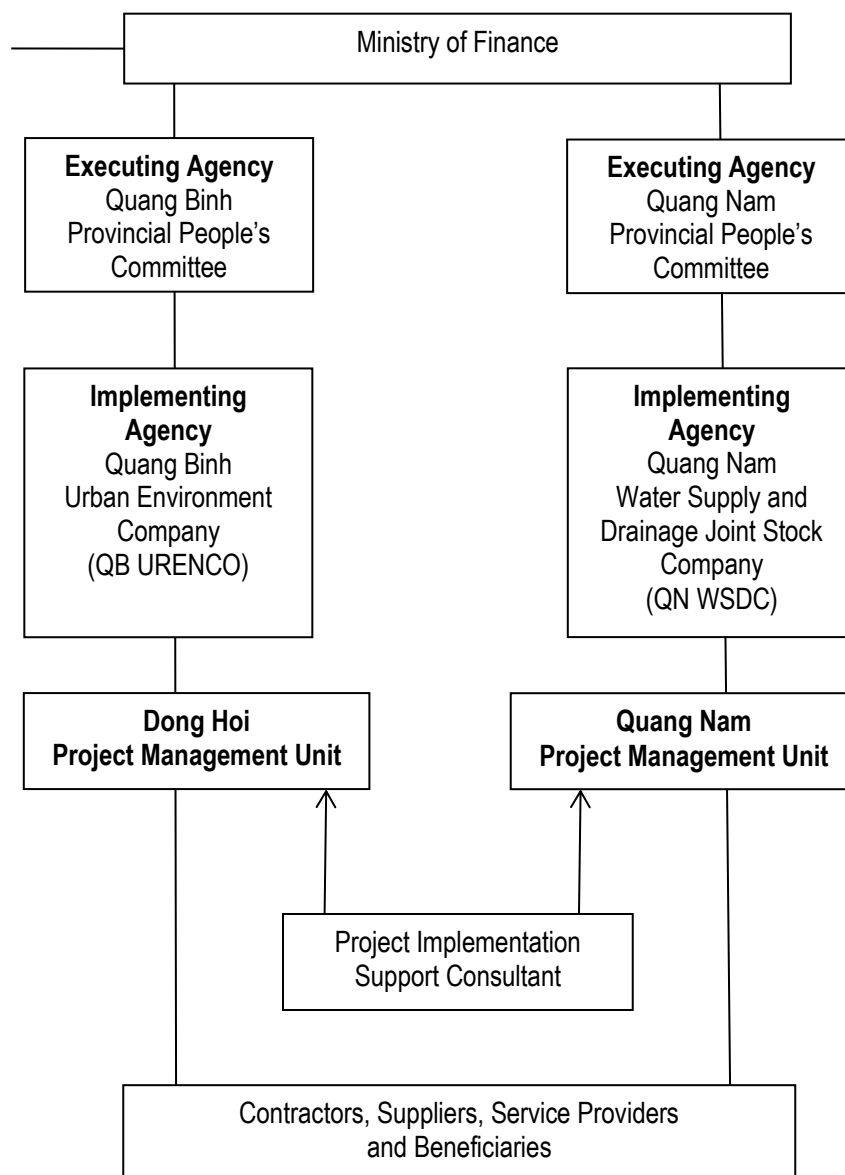
Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	100.00	69.4
Urban Climate Change Resilience Trust Fund ^a under the Urban Financing Partnership Facility	4.00	2.8
Government of Viet Nam	40.18	27.9
Total	144.18	100.0

^a Financing partners: the Rockefeller Foundation and the Governments of the United Kingdom and the United States.
Source: Asian Development Bank estimates.

7. The Project Organization Structure is illustrated in Figure 1. Each EA will submit progress and financial reports to ADB separately (i.e. the reports will not be consolidated).

Figure 1: Project Organization Structure





III. COUNTRY AND SECTOR FINANCIAL MANAGEMENT ISSUES

8. **Vietnam needs a well-structured, well-sequenced Capacity Building Program.** . Since 2007, the six development banks²⁸ and the government of Vietnam have been implementing Joint Action Plans to improve the country's systems for project preparation, procurement, financial management, social safeguards, environment safeguards, monitoring and evaluation for ODA projects, in particular, disbursement and social safeguards which are yet to be in line with best international practices. An ADB TA approved in 2011 and still ongoing seeks to create a well-structured, well-sequenced capacity building program in the executing agencies and project management units (PMUs) of ADB-financed projects in Vietnam, to help improve portfolio performance and aid effectiveness. As of 31 May 2014, 48 central PMUs and 383 provincial PMUs were involved in the overall ongoing ADB portfolio in Viet Nam's 63 cities

²⁸ The banks which form the Six Development Banks Group (6BG) as agreed in the second Joint Action Plan are ADB, World Bank, JICA (Japan), Korea Eximbank (Korea), KfW (Germany) and AFD (France).

and provinces. Weak staff capacity of EAs and PMUs is still a substantial risk for many of ADB's Vietnamese projects. The staff members of many executing agencies and PMUs are still not familiar with ADB's policies and procedures, which leads to delays in securing ADB's approval of project documents, and delays disbursements and prolongs implementation.

9. **Urban Water Supply and Sanitation Reform in Vietnam.**²⁹ Decentralization passed on to PPCs the responsibility for providing water supply and sanitation services, and also required them to create legally distinct state-owned companies to operate and maintain the water systems and exercise commercial functions. PPCs are now also responsible for providing sewerage and drainage services. In 2009 the government introduced the policy of "socialization" or "equitization" of water supply companies through Prime Minister Instruction 854/2009. The policy is a byword for creating financially autonomous utilities that would ultimately be able to borrow from commercial banks. In the larger towns, several institutional setups are in place, including (i) combined water supply and drainage companies (WSDCs); (ii) PPC departments providing sanitation and other urban management services such as solid waste management, street pavement maintenance, park and public garden maintenance, streetlight maintenance, road construction, and funeral services; and (iii) urban environmental companies (URENCOs), which operate as independent state-owned enterprises and provide drainage and sanitation and in many cases other urban services. The environmental fee of 10% of the water bill collected by WSDCs and local government budget contributions fund the sanitation companies' operating costs and capital investments. While deemed independent, these companies still have severely restricted autonomy and are viewed to be closely controlled by the local governments (municipalities). The "equitization" of was completed in 2010 but provincial governments used their water utilities to engage in other businesses including real estate.

10. The QN WSDC operates 19 businesses in 12 subsidiary companies and 7 joint ventures. Water production and supply represented 55% of its total 2013 revenues. The following covenants have been discussed with the Government to address key considerations: (i) the PPC will commit to support water tariff reform and monitor the WSDC's compliance with the government decrees for water utilities; and (ii) the QN WSDC will commit to comply with the government decrees for water utilities, including Decree 117 which mandates full cost recovery water tariffs and carving out non-water businesses.

11. **ADB's Country Portfolio.** The 2014 ADB Country Performance Assessment (CPA) exercise assigned Vietnam an overall rating of 18.6, higher than the Average Non Pacific Developing Member Country (DMC) average of 15.9. The CPA portfolio rating for 2014 was 3.5 (out of 6) a slight increase from 2013 and 2012 ratings of 3.0, but a marked decline in relation to previous ratings prior to 2008 (eg 4.5 over the period 2005-2007). This reduction in the portfolio rating corresponds with the rapid increase in Vietnam's portfolio since 2007 and the increased complexity of lending operations. As indicated in the Country Partnership Strategy, 2012-15 on 31 March 2012, the ongoing portfolio comprised 59 loans and 48 TA projects in the net amount

²⁹ The National Orientation Plan for Water Supply to 2020 transformed sector policies and institutional arrangements for the development of the Vietnamese water supply and sanitation, and many other decisions and circulars issued by the Government have reinforced and further refined sector policies including: (i) Joint Ministry of Finance and Ministry of Construction (MOC) circular of 2004 stipulating a common tariff framework for the sector based on the principle of full cost recovery and a reasonable profit; (ii) Decree 88/2007 on urban and industrial park drainage, promoting cost recovery for basic O&M through a surcharge of the water tariff at a minimum of 10% to achieve recovery of the operation and maintenance costs; (iii) Decree 117/2007 on clean water production, supply, and consumption, in support of full cost recovery; (iv) Decree 59/2007 on solid waste management, in support of full cost recovery; (v) Decree 124 dated 28 December 2011, which amends and supplements some articles of Decree 117; and (vi) a Joint Circular 75 dated 15 May 2012 which stipulates the guiding principles of tariff calculation.

of \$7.1 billion. Of this amount, \$3.4 billion (54%) has been awarded and \$1.7 billion (24%) has been disbursed. The CPS attributed this poor performance to start up delays particularly in relation to land acquisition and resettlement³⁰.

12. Viet Nam's portfolio financial performance fell well short of the ADB average until 2013. The portfolio's loan disbursement ratio was 12.33% in 2010, compared with the ADB average ratio of 25.15%; 16.14% in 2011, compared with the 22.84% ADB average; and 11.52% in 2012, compared with 22.30% for ADB's overall portfolio and 15.9% for the World Bank portfolio in Viet Nam.³¹ As the result of slow disbursements, the proportion of the delayed project loans and grants in the total Viet Nam portfolio in terms of monetary value has increased in recent years. The ratio was 17% in 2011, 29% in 2012 and 26% in 2013. As of November 2013, out of 78 active project loans and grants, 22 were extended with the average extended time of 22 months.⁶ In 2013, the ratio improved sharply and matched the ADB average of 21.00%. However, Viet Nam must still overcome challenges if it is to improve its contract awards performance and sustain a comparable level of disbursements in the future.

IV. PROJECT FINANCIAL MANAGEMENT SYSTEM

A. Overview

13. The FMAs considered Quang Binh Department of Finance (DOF), Quang Binh Environment and Urban Development One Member Limited Company (URENCO), Quang Nam Water Draining Supplying Joint Stock Company, Quang Nam WSDC Hoi An Division. In each of the two provinces, Quang Nam and Quang Binh, the provincial Department of Finance supervises the accounts and financial management of provincial entities which are controlled by the PPC. Each uses accrual-based Viet Nam accounting standards and has computerized information systems.

14. The PPCs meet their financial obligations including capex, debt service and other recurrent costs, through local revenues and balance transfers from the Central Government.

15. Vietnam's internal Public Administration Performance Index (PAPI)³² ranks the administrations in each province based on provincial performance in terms of participation at local levels, transparency, vertical accountability, control of corruption, public administrative procedures, and public service delivery. Vietnam's 63 provinces are classified into four groups based on their PAPI score: best performers, high average, low average, and poor performers. In 2013, Quang Binh Province was one of 16 "best performers", and Quang Nam Province was one of 15 provinces rated "high average".

³⁰ Source: ADB CPA Reports.

³¹ Source: TA 8034: Support to Improve Portfolio Performance and Aid Effectiveness. 2014. Study on Cost of Project Implementation Delays. Hanoi

³² PAPI is a policy monitoring instrument developed by the Viet Nam Fatherland Front (VFF), the Committee for People's Petition (CPP), the Center for Community Support and Development Studies (CECODES) and the United Nations Development Programme (UNDP). PAPI provides objective and evidence-based measures, based on citizens' experiences and direct interactions, of the standards of provincial level governance, public administration, and the performance of public services

B. Strengths

16. Both PPC's rank highly in terms of their PAPI scores and both have implemented ADB-funded projects. All IAs have experience implementing construction projects, including externally financed projects (but not ADB-funded projects).

Province	Project
Quang Binh	<ul style="list-style-type: none"> World Bank-financed Coastal Cities Environmental Sanitation Project in Dong Hoi
Quang Nam	<ul style="list-style-type: none"> ADB-funded Central Region Urban Environmental Improvement Project World Bank-financed Urban Water Supply and Wastewater Project in three cities in Quang Nam Province Government of Norway-financed Upgrading and Expansion of Hoi An Water Supply Plant Project Government of Italy financed Drainage and Sanitation Project in Hoi An
Both	<ul style="list-style-type: none"> ADB-funded Central Region Rural Water Supply and Sanitation Sector Project

C. Weaknesses

17. There are several subprojects for each province. The implementation arrangements should be streamlined, and the management capacity of the IAs needs to be strengthened. Capacity development for the IAs in ADB-specific disbursement, procurement and financial management practices will be provided as part of the project.

D. Personnel, Accounting Policies and Procedures, Internal Control, Internal and External Audit

18. **Personnel.** Financial management staff under the EAs generally are familiar with externally funded projects having been involved in the recently completed and ongoing projects (as detailed above). They previously received training on project management, disbursements, audit, and financial management under the ADB projects and have experience working with ADB missions.

19. Both IAs have experience with infrastructure construction financed by both domestic and external funded, including other multilateral development bank-funded projects. The PMUs will be led by senior and experienced staff, with experience with relevant projects. They will be backed by the PPC's Department of Finance. Although the IAs have not implemented an ADB-funded project, they will be will closely supervised by the EAs' Department of Finance. Training on ADB procedures and advanced financial management will be necessary to ensure success of implementation of the project.

20. The IA for the Dong Hoi subprojects (QB URENCO) has a large number of accounting staff who have gain considerable experience in the execution of the previous world bank financed Dong Hoi City Environmental Sanitation Project. Physical as well as financial targets are budgeted. There have been no funds flow, invoicing, or auditing problems.

21. The IA for the Hoi An projects (QN WSDC) has a smaller staff number with limited experience on multilateral financed projects. As this component is both the largest and the more

complex in terms of financial management there will be a need to reinforce staff levels and capacities especially for QN WSDC.

22. **Accounting Policies and Procedures.** The IAs/PMUs will use Viet Nam accounting standards, an accrual based system, which the IA is well versed in. To simplify the flow of funds for the Quang Nam components, QN WSDC will be the IA for all the components in the province. There will be staff at the QN WSDC's PMU trained and focused on financial management and close supervision of accounts by the PPC's Department of Finance which will report to the PPC.

23. **Internal Control.** Capacity development for the IAs in ADB-specific disbursement, procurement and financial management practices will be provided as part of the project.

24. **Internal and External Audit.** Separate internal and external auditors will also be used.

E. Financial reporting systems, including use of information technology

25. The provincial Department of Finance of each PPC will supervise preparation of the accounts of the PMU and report to the PPC.

26. The Hoi An division of QN WSDC will require upgrading in terms of customer information and asset management systems, but these are independent of the financial management systems of the PMU.

F. Disbursement arrangements, funds flow mechanism

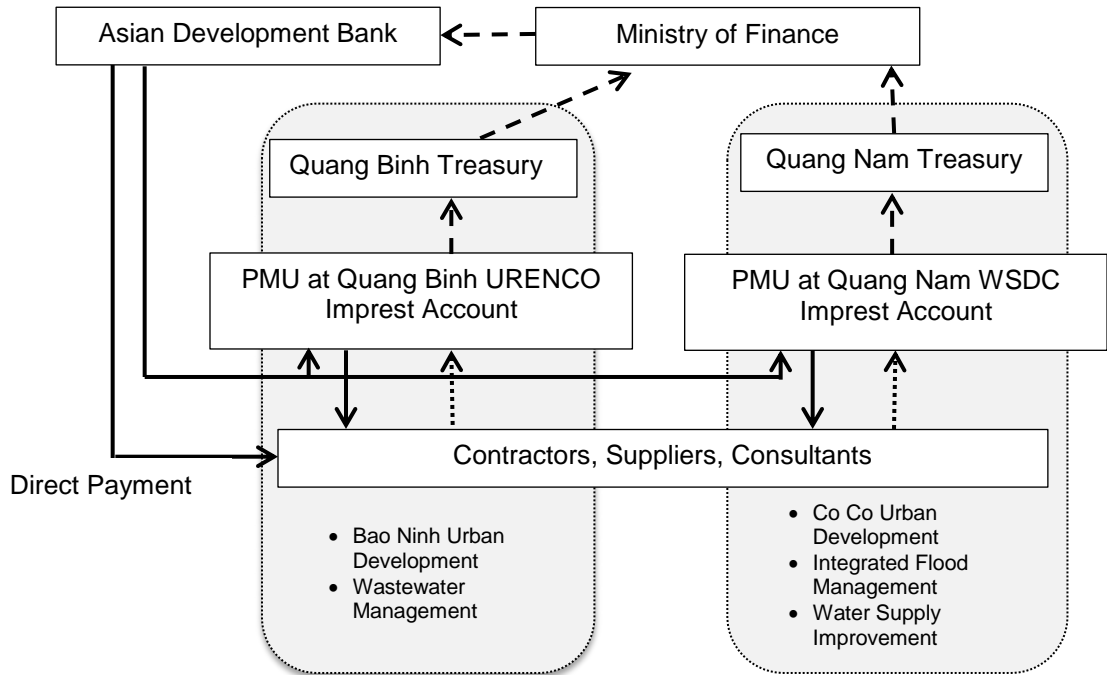
27. The borrower will be responsible for implementing the project according to the loan agreement and other agreements. All disbursements under the loan will be carried out in accordance with *ADB's Loan Disbursement Handbook (2015, as amended from time to time)*. The last disbursement under the project will be made by 31 December 2022.

28. A separate bank (to be defined) will be used for the special account. Counterpart funds will come directly from the PPC.

29. There will be two imprest accounts, one for each EA: Quang Binh URENCO and Quang Nam WSDC, as illustrated in the project fund flow mechanism in Figure 2 below.

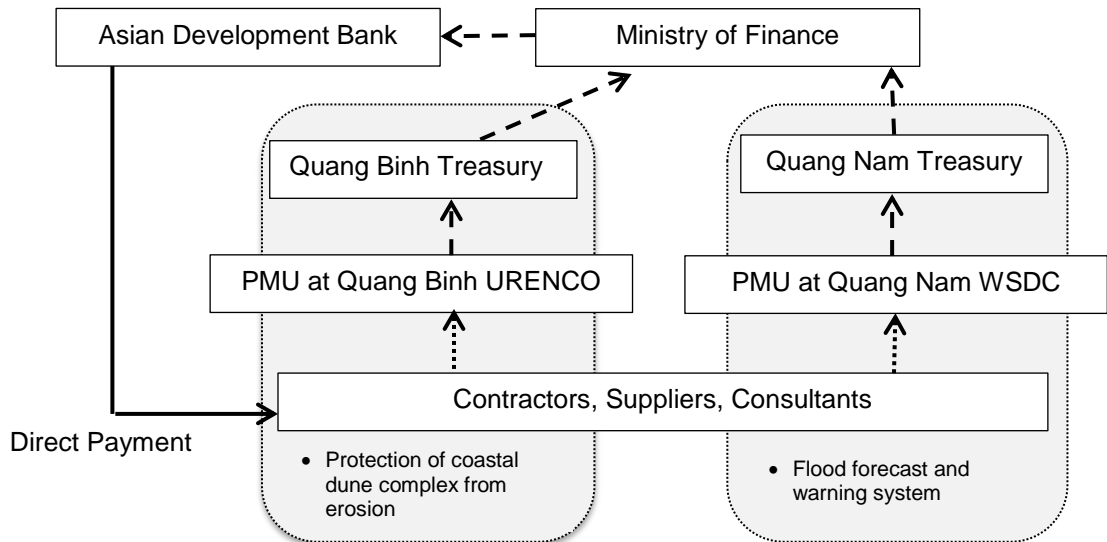
Figure 2: Funds Flow Arrangements

For Loan Funds



--> = withdrawal application, —> = payment, ----> claim
 PPC = Provincial People’s Committee, URENCO = Urban Environment Company, WSDC = Water Supply and Drainage Joint Stock Company.
 Source: Asian Development Bank.

For Grant Funds



--> = withdrawal application, —> = payment, ----> claim
 PPC = Provincial People’s Committee, URENCO = Urban Environment Company, WSDC = Water Supply and Drainage Joint Stock Company.
 Source: Asian Development Bank.

30. **Direct payment.** Direct payment procedures (where ADB, at the borrower's request, pays a designated beneficiary directly) will be generally used for civil works contracts and for consulting services contracts, and for disbursements of grant funds. Payments for large contracts will be through direct payment, reimbursement, or commitment procedures.

Narrative Procedures for Direct Payment Procedure

Responsible Party/Unit	Activity
Borrower	<ul style="list-style-type: none"> • completes the withdrawal application for each payment in different currency; • completes the corresponding Summary Sheet using a separate form for each category or subcategory; • attaches the contract or confirmed purchase order (PO) indicating the amount and due date; and • attaches the supporting documents to each withdrawal application.
ADB	<ul style="list-style-type: none"> • receives the accomplished forms and related supporting documents.

31. **Imprest Accounts.** Each IA will open and maintain an imprest account for ADB loan funds in US dollars and Dong in its name in a bank acceptable to ADB. The IA is accountable and responsible for proper use of advances to its imprest account(s). Grant proceeds will be handled separately.

32. Each disbursement from the imprest accounts will be supported by an appropriate withdrawal application and related documentation. The imprest accounts are to be used exclusively for ADB's share of eligible expenditures. Statement of expenditure (SOE) procedure may be used to reimburse eligible expenditures for any individual payment not exceeding \$100,000. Removal of SOE ceiling will be considered at the end of second year of project implementation if it is confirmed that IAs have sufficient capacity to administer SOE procedures.

V. RISK DESCRIPTION AND RATING – INCLUDING THE FINANCIAL MANAGEMENT AND INTERNAL CONTROL RISK ASSESSMENT

33. A Financial Management Internal Control and Risk Management Assessment was conducted in 2014. The risk-assessment approach is based largely on International Standard on Auditing 400 *Risk Assessment and Internal Control*. The following risk assessments are based on existing circumstances, staffing and procedures, and include recommendations for risk mitigation measures.

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures
INHERENT RISK				
Weak management and skills capacity at the IAs/PMUs in implementing ADB projects.	Substantial	Likely	Substantial	<ul style="list-style-type: none"> • Continuing capacity development program in both EAs and IAs/PMUs (CDTA 4183-001) to improve portfolio performance and aid effectiveness. • Oversight of PPC's Department of Finance.
Possible confusion of implementation roles for the various Quang Nam components.	Moderate	Likely	Moderate	QN WSDC will be the IA for ALL subcomponents in Quang Nam province.
QN WSDC's financial statements may mask volatility of its financial	Moderate	Likely	Moderate	<ul style="list-style-type: none"> • QN PPC will guarantee forex losses and provide subsidies to the WSDC as required.

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures
<p>performance and liquidity. Non-water businesses account for half of profits and require significant capital investment. A qualified auditor's opinion flagged depreciation was not fully recognized. Hoi An division's financial results (water only) may be overstated as cash basis reporting.</p> <p>The project covers two cities in two provinces involving 8-hour travel for project implementation support consultants. Overall inherent risk</p>	Substantial	Likely	Substantial	<ul style="list-style-type: none"> • QN WSDC will pay QN PPC only as plots are sold or leased for Co Co River project. • Hoi An division's operations were cash positive from 2008-2012. • Both QN PPC and WSDC will commit to support water tariff reform to achieve full cost recovery, to carve out non-water businesses, to ring-fence Hoi An division's cash flows, and to provide financial statements of the Hoi An division every six months. • Where possible consultants will be assigned to a single city. • Otherwise expected time allocations have been defined.
CONTROL RISK				
Flow of funds for the project is complicated due to two EAs/IAs and several subprojects per EA/IA.	Substantial	Likely	Substantial	<ul style="list-style-type: none"> • Separate imprest accounts to be maintained for the two IAs, QN WSDC and QB URENCO components. • There will be only one IA for all projects in each province. • Regular training on ADB disbursement policies.
<p>QN WSDC has limited experience, and a relatively weak organizational structure for project implementation (unlike QB URENCO which has experience from a recent World Bank financed project).</p> <p>Neither IA has experience of loan repayments, including after the end of the completion of the project implementation support consultant's assignment.</p> <p>Satisfactory bookkeeping staff skills, but capacity could be improved to ensure understanding of ADB procedures and smooth project implementation including disbursements.</p>	Moderate	Likely	Moderate	<ul style="list-style-type: none"> • Support will be provided to establish sound financial management arrangements and strengthen the organizational structure of QN WSDC. • QN PPC's Department of Finance which has past experience in implementing ADB loans, will closely oversee the IA/PMU, to ensure proper records for the various sub-components.
<p>Neither IA has experience of loan repayments, including after the end of the completion of the project implementation support consultant's assignment.</p> <p>Satisfactory bookkeeping staff skills, but capacity could be improved to ensure understanding of ADB procedures and smooth project implementation including disbursements.</p>	Substantial	Likely	Moderate	Provide training on budgeting and update estimates of loan repayments on a regular basis during the implementation period.
<p>Satisfactory bookkeeping staff skills, but capacity could be improved to ensure understanding of ADB procedures and smooth project implementation including disbursements.</p>	Moderate	Likely	Moderate	<ul style="list-style-type: none"> • The IAs/PMUs will use accrual-based Viet Nam accounting standards which the staff is well versed in. • Each entity prepares quarterly and annual reports which have been previously considered satisfactory. • The provincial Department of Finance will supervise accounts and report to the PPC. • Capacity of accounting staff to be improved including implementation of AFM manual and NDP software. • Provide regular training on ADB procurement and disbursement processes.
Lack of separation of responsibility for (i)	Moderate	Likely	Moderate	<ul style="list-style-type: none"> • Promote improved practices wherever possible.

Risk Description	Impact	Likelihood	Risk Assessment	Mitigation Measures
authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transactions. Upgrades may be required for the computerized information systems of the PMUs.	Moderate	Likely	Moderate	<ul style="list-style-type: none"> Separate internal and external auditors will also be used. <p>The Hoi An division of QN WSDC will require upgrading in terms of customer information and asset management systems, but these will be independent of the PMU's financial management systems.</p>
Overall Control Risk			Moderate	

VI. PROPOSED TIME-BOUND ACTION PLAN

1. The following actions were agreed with the EAs and IAs:

Weakness	Mitigation Action	Responsibility	Timeframe
Weak financial management capacity.	Each PMU will be established with qualified accountant.	EA/IA	By loan effectiveness
IA staff requires further capacity development in financial management.	Project implementation support consultant will be engaged.	EA/IA	By 2017
Some gaps in financial management procedures.	Project financial management procedures will be established	EA/IA	By 2017
No experience in ADB-funded projects.	Training programs on ADB's disbursement procedures and advanced financial management will be developed and implemented regularly during project implementation.	EA/IA/ADB	By 2017
No experience in ADB-funded projects.	Compliance with the financial covenants will be monitored.	ADB	Regularly during project implementation

VII. SUGGESTED FINANCIAL MANAGEMENT COVENANTS

34. The Borrower shall ensure that:

- (i) the activities of the EAs (QN PPC and QB PPC) and the IAs (QN WSDC and QB URENCO) with respect to the carrying out of the subprojects and operation of the project facilities are conducted and coordinated in accordance with sound administrative policies and procedures;

- (ii) the Borrower, the EAs and the IAs shall comply with ADB's Anticorruption Policy (1998, as amended to date) and acknowledge that ADB reserves the right to investigate directly, or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project; and (b) to cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation;
 - (iii) the Borrower, the EAs and the IAs shall ensure that the anticorruption provisions acceptable to ADB are included in all bidding documents and contracts, including provisions specifying the right of ADB to audit and examine the records and accounts of the EAs and the IAs and all contractors, suppliers, consultants, and other service providers as they relate to the Project.
35. 4.QB PPC, QN PPC, QN WSDC and QB URENCO shall:
- (i) maintain separate accounts and records for their respective subcomponents under the Project;
 - (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB;
 - (iii) have such financial statements for the Project audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB;
 - (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements, use of the Loan proceeds and compliance with the financial covenants of the Loan Agreement as well as on the use of the procedures for imprest fund(s) and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any);
 - (iv) furnish to ADB, no later than 6 months after the close of the fiscal year to which they relate, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request;
 - (v) upon ADB's request, enable ADB to discuss the financial statements for the Project and their financial affairs where they relate to the Project with their appointed auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB.
36. QN WSDC and QB URENCO shall:
- (i) provide their annual financial statements prepared in accordance with national accrual-based financing reporting standards acceptable to ADB;
 - (ii) have their financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; and
 - (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

VIII. CONCLUSION

37. The results of the FMAQs were analyzed with particular focus on the accounting and auditing procedures and staff expertise. In terms of accounting and auditing procedures, the existing financial information system (i.e., accounting, reporting, and internal control system) were found to be complete and applicable for domestic construction entities. In terms of staff expertise, the IAs have experience in infrastructure construction financed by both domestic and external funds, but have not implemented an ADB-funded project (although the EAs have). Training on ADB's disbursement procedures and advanced financial management will be conducted to ensure success of implementation of the project.

Financial Management Assessment Questionnaire

**Quang Binh Environment and Urban Development One Member Limited Company
(Quang Binh URENCO)**

Topic	Response	Remarks
1. Executing/Implementing Agency		
1.1 What is the entity's legal status / registration?	Quang Binh Environment and Urban Development One Member Limited Company	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	The company has implemented one project: Dong Hoi environmental sanitation project funded by the World Bank (nearly USD 80 million) . The project includes issues of environmental sanitation and wastewater drainage	
1.3 What are the statutory reporting requirements for the entity?	Financial and auditing reports	
1.4 Is the governing body for the project independent?	No. The PMU has been established under the company	
1.5 Is the organizational structure appropriate for the needs of the project?	No	
2. Funds Flow Arrangements	Project funds come from the Central Budget	
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from WB, government and other financiers.	The project fund flow is allocated from the Central budget through the State Treasury	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Ministry of Finance) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	No problems	
2.4 In which bank will the Special Account be opened?	Bank for Investment and Development of Vietnam (BIDV)	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from WB?	Yes	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	Yes	

Topic	Response	Remarks
2.8 How are the counterpart funds accessed?	The company plans for annual counterpart funds and the provincial People's Committee will make decisions. Capital withdrawal is through the State Treasury system	
2.9 How are payments made from the counterpart funds?	Site clearance and regular expenses for project management	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	The beneficiaries are not required to contribute to project costs.	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Organizational structure attached	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	The descriptions attached	
3.3 Is the project finance and accounting function staffed adequately?	Yes	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	
3.5 Is the project accounts and finance staff trained in WB procedures?	Yes	
3.6 What is the duration of the contract with the finance and accounts staff?	Long term, more than 5 years	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	No positions without signing contract	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes	
3.11 At what frequency are personnel transferred?	each 3 year	
3.12 What is training policy for the finance and accounting staff?	Training capacity has been developed in the project	

Topic	Response	Remarks
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes	
(1) Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	No	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Appropriate	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?		
(2) Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	After the fact	

Topic	Response	Remarks
4.14 Who is responsible for preparation and approval of budgets?	The Director	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Properly controlled	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?		
4.21 What accounting standards are followed?	Vietnamese Accounting Standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?		
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	

Topic	Response	Remarks
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Mr Pham Duc Thai – Deputy Director	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	Yes	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?		
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes	
5.2 What are the qualifications and experience of audit department staff?	Yes	
5.3 To whom does the internal auditor report?	The Director	
5.4 Will the internal audit department include the project in its work program?	Yes	

Topic	Response	Remarks
5.5 Are actions taken on the internal audit findings?	Compliance Testing	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. an Independent auditor and an State auditor	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No delays Upon request	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	International and Vietnamese Accounting Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Both of them	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Yes	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Vietnamese Accounting Standards	
7.2 Are financial statements prepared for the implementing unit?	Yes	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Annually. Useful	
7.4 Does the reporting system need to be adapted to report on the project components?	No need to be changed	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes	
7.7 Are financial management reports used by management?	Yes	

	Topic	Response	Remarks
7.8	Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9	Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	By automated accounting system	
8.	Information Systems		
8.1	Is the financial management system computerized?	Yes	
8.2	Can the system produce the necessary project financial reports?	Yes	
8.3	Is the staff adequately trained to maintain the system?	Yes	
8.4	Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Attachment:**List of Accounting Staff**

- | | | |
|-------------------------|-----------------------|---|
| 1. | Tieu Thi Bong- | Chief Accountant |
| 2. | Pham Thi My Thuy- | Billing Accountant |
| 3. | Nguyen Thi Thu Hien- | Banking Accountant |
| 4. | Bui Thi Xuan- | Treasurer |
| Production teams | | |
| 5. | Pham Thi Loan- | Chief Accountant of Environment Team 1 |
| 6. | Vo Thi Xuan- | Chief Accountant of Environment Team 2 |
| 7. | Tran Thi Thu Hang- | Chief Accountant of Drainage Team |
| 8. | Nguyen Thi Hien- | Chief Accountant of Electricity Team |
| 9. | Vo Phuong Lan- | Chief Accountant of Driving Team, Dong Hoi environmental sanitation project |
| 10. | Nguyen Tien Hung- | Deputy Head of Financial Accounting, Accountant of the PMU of the project |
| 11. | Nguyen Thi Hong Hanh- | Billing Accountant |
| 12. | Dinh Xuan Truong- | General Accountant |
| 13. | Nguyen Thi Hong Yen- | Contract management |
| 14. | Le Thi Hoai Nga- | Fixed assest and payroll Accountant cum Treasurer, Board of ADB Project Preparation |
| 15. | Le Duc Man- | Accountant of the PMU of ADB projects |

Financial Management Assessment Questionnaire

Quang Binh Department of Finance (QB DOF)

Topic	Response	Remarks
1. Executing/Implementing Agency		
1.1 What is the entity's legal status / registration?	Department of Finance under Quang Binh People's Committee.	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?		
1.3 What are the statutory reporting requirements for the entity?	Financial and auditing reports	
1.4 Is the governing body for the project independent?	Reports to PPC	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes. URENCO will manage the project. DOF will control, verify and report. They will not audit.	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from WB, government and other financiers.	Funds will go: Donors to MOF; to VDB for URENCO projects (WW, Environment) or possibly DOF if WSC project,	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Ministry of Finance) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Special Account be opened?	BIDV; SBV; VDB	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from WB?	PIU URENCO not DOF.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	PIU URENCO not DOF	
2.8 How are the counterpart funds accessed?	PIU URENCO not DOF	
2.9 How are payments made from the counterpart funds?	PIU URENCO not DOF	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	PIU URENCO not DOF	

Topic	Response	Remarks
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	PIU URENCO not DOF	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Appendix attached WHERE?	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Appendix attached WHERE?	
3.3 Is the project finance and accounting function staffed adequately?	Yes	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	
3.5 Is the project accounts and finance staff trained in WB procedures?	Yes	
3.6 What is the duration of the contract with the finance and accounts staff?	Long time	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	No position without contracted	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes	
3.11 At what frequency are personnel transferred?	Each three year	
3.12 What is training policy for the finance and accounting staff?	Regular training	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes	

	Topic	Response	Remarks
4.5	Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes	
4.6	Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes	
(3)	<i>Segregation of Duties</i>		
4.7	Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	No	
4.8	Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Appropriate	
4.9	Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes	
(4)	<i>Budgeting System</i>		
4.10	Do budgets include physical and financial targets?	Yes	
4.11	Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12	Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13	Are approvals for variations from the budget required in advance or after the fact?	After the fact	
4.14	Who is responsible for preparation and approval of budgets?	The director	
4.15	Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16	Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	

Topic	Response	Remarks
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Control reasonable.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Accrual	
4.21 What accounting standards are followed?	Viet Nam accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	?????	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	

Topic	Response	Remarks
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	Yes	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	URÉNCO – see separate FMAQ	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	URÉNCO – see separate FMAQ	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	URÉNCO – see separate FMAQ	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	URÉNCO – see separate FMAQ	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes	
5.2 What are the qualifications and experience of audit department staff?	Good qualifications and experience	
5.3 To whom does the internal auditor report?	The director	
5.4 Will the internal audit department include the project in its work program?	URÉNCO – see separate FMAQ	
5.5 Are actions taken on the internal audit findings?	Compliance testing	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. An independent auditor and the State auditor	

Topic	Response	Remarks
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No delays Upon request	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	No. According to Vietnam Standards on Auditing	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Both of them	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Yes	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	No. According to Vietnam Standards on Auditing	
7.2 Are financial statements prepared for the implementing unit?	Yes	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Annually. Useful.	
7.4 Does the reporting system need to be adapted to report on the project components?	No need to change	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes. The financial management reporting responsibilities have been established.	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	

Topic	Response	Remarks
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	By the automated accounting system	
8. Information Systems		
8.1 Is the financial management system computerized?	Yes	
8.2 Can the system produce the necessary project financial reports?	Yes	
8.3 Is the staff adequately trained to maintain the system?	Yes	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Financial Management Assessment Questionnaire

QUANG NAM WSDC HOI AN DIVISION

Note: Hoi An as a Division relies for most of its accounting on QN WSDC HO. The below should be read with their FMAQ answers.

	Topic	Response	Remarks
1.	Executing/Implementing Agency	QN WSDC Hoi An Division. Sub Implementing Agency	
1.1	What is the entity's legal status / registration?	Joint Stock Company	
1.2	Has the entity implemented an externally-financed project in the past (if so, please provide details)?	See separate WSDC FMAQ	
1.3	What are the statutory reporting requirements for the entity?	Financial reports	
1.4	Is the governing body for the project independent?	See separate WSDC FMAQ	
1.5	Is the organizational structure appropriate for the needs of the project?	Yes	
2.	Funds Flow Arrangements		
2.1	Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	See separate WSDC FMAQ	
2.2	Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Ministry of Finance) to the entity satisfactory?		
2.3	What have been the major problems in the past in receipt of funds by the entity?		A specific covenant may be required in the loan documents.
2.4	In which bank will the Special Account be opened?	See separate WSDC FMAQ	
2.5	Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	See separate WSDC FMAQ	
2.7	Does the entity have/need a capacity to manage foreign exchange risks?	See separate WSDC FMAQ	
2.8	How are the counterpart funds accessed?	See separate WSDC FMAQ	
2.9	How are payments made from the counterpart funds?	See separate WSDC FMAQ	
2.10	If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	See separate WSDC FMAQ	

Topic	Response	Remarks
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	See separate WSDC FMAQ	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Include: -1 Chief Accountant -1 Accountant -1 Cashier	The Financial Management Specialist (FMS) assisted the EA to develop organogram
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	-1 Chief Accountant: Nguyen Thi Thuy Hoa, 9 years of professional experience -2) Accountant: Pham Thi Thu Thuy, 8 years of professional experience -3) Cashier: Nguyen Thi Ngoc Lien	
3.3 Is the project finance and accounting function staffed adequately?	Yes	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	
3.5 Is the project accounts and finance staff trained in ADB procedures?	Yes	Detailed design of the FM capacity building intervention is required to be developed and finalized
3.6 What is the duration of the contract with the finance and accounts staff?	Permanent contracts	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	See separate WSDC FMAQ	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	See separate WSDC FMAQ	
3.11 At what frequency are personnel transferred?	See separate WSDC FMAQ	
3.12 What is training policy for the finance and accounting staff?	See separate WSDC FMAQ	

Topic	Response	Remarks
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes	Initial implementation of AFM manual and parameterization of NDP software in accordance would require technical assistance of about 4 to 5 person months in addition to licensing.
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes	
(5) Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	See separate WSDC FMAQ	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes	
(6) Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	

Topic	Response	Remarks
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	See separate WSDC FMAQ	
4.14 Who is responsible for preparation and approval of budgets?	Director	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash	
4.21 What accounting standards are followed?	Current Vietnamese accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes	
4.23 Is the accounting policy and procedure manual updated for the project activities?	See separate WSDC FMAQ	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	

Topic	Response	Remarks
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	See separate WSDC FMAQ	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Ngo Duc Liem; Director	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	All cash receiveds are sent to Quang Nam WSC's accounts in Tam Ky	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	See separate WSDC FMAQ	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	

Topic	Response	Remarks
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit	Internal audit at Quang Nam WSC in Tam Ky	
5.1 Is there a internal audit department in the entity?	Yes	Mitigated by frequent external audit, see below
5.2 What are the qualifications and experience of audit department staff?	See separate WSDC FMAQ	
5.3 To whom does the internal auditor report?	See separate WSDC FMAQ	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	See separate WSDC FMAQ	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	See separate WSDC FMAQ	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	See separate WSDC FMAQ	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	See separate WSDC FMAQ	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	See separate WSDC FMAQ	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	See separate WSDC FMAQ	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	See separate WSDC FMAQ	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes	
7.2 Are financial statements prepared for the implementing unit?	See separate WSDC FMAQ	

Topic	Response	Remarks
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to be useful to management for decision making?	See separate WSDC FMAQ	
7.4 Does the reporting system need to be adapted to report on the project components?	See separate WSDC FMAQ	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	See separate WSDC FMAQ	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?		
8. Information Systems		
8.1 Is the financial management system computerized?	See separate WSDC FMAQ	The accounting software acquisition and its maintenance and support would be required to be procured separately. This may be packaged with the assistance required to customize and implement AFM manual and the initial training of FM staff. (FM Capacity Building)
8.2 Can the system produce the necessary project financial reports?	Yes	
8.3 Is the staff adequately trained to maintain the system?	Yes	

Topic	Response	Remarks
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Financial Management Assessment Questionnaire

QUANG NAM WATER DRAINING SUPPLYING JOINT STOCK COMPANY

Topic	Response	Remarks
1. Executing/Implementing Agency	Implementing Agency	
1.1 What is the entity's legal status / registration?	Joint Stock Company	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Yes: -Water supply system in 3 provinces: Thach My, Phu Ninh, Vinh Dien - Kham Duc – Phuoc Son Water Plant. - Extend Tam Ky Water Plant - Extend Hoi An Water Plant - Nui Thanh Water Drainage system and Environment Sanitation	
1.3 What are the statutory reporting requirements for the entity?	The audited financial statement	Audited by who?
1.4 Is the governing body for the project independent?	No	
1.5 Is the organizational structure appropriate for the needs of the project?	No	What changes are needed?
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Chart included	Where?
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Ministry of Finance) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	No problems in receipt of funds	A specific covenant may be required in the loan documents.
2.4 In which bank will the Special Account be opened?	- The Vietnam Development Bank - The Investment and Development Bank of Vietnam	Which?
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	Yes	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	Yes	Not necessary if the sub-loan is in USD
2.8 How are the counterpart funds accessed?	The People's Committee approve annual plans	

Topic	Response	Remarks
2.9 How are payments made from the counterpart funds?	Make records – send to State Treasury for expenditure control - Disbursement	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes	What parts are implemented by communities or NGOs
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Yes	What labor contribution? If none say “contribution yes; in kind no”
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Centralized accounting Chart attached Where?	The Financial Management Specialist (FMS) assisted the EA to develop organogram
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Specific decisions have not been available	Give names and titles of finance/accounts staff.
3.3 Is the project finance and accounting function staffed adequately?	Yes	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	Give qualifications
3.5 Is the project accounts and finance staff trained in ADB procedures?	Yes – trained in each past ADB project	Detailed design of the FM capacity building intervention is required to be developed and finalized
3.6 What is the duration of the contract with the finance and accounts staff?	Permanent contracts	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	This internal information on personnel planning can cannot be provided now	Will additional staff be needed?
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes	
3.11 At what frequency are personnel transferred?	From 3 years to five years	
3.12 What is training policy for the finance and accounting staff?	Full-time and on-the-job training	

Topic	Response	Remarks
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes	Initial implementation of AFM manual and parameterization of NDP software in accordance would require technical assistance of about 4 to 5 person months in addition to licensing.
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes – flow ISO	
(7) Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	No	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes	
(8) Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Before and after the fact	
4.14 Who is responsible for preparation and approval of budgets?	The higher level	

Topic	Response	Remarks
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	
Payments		
Chi trả		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Arising economic Transactions	Is this CASH or ACCRUAL? Or??? Hoi An Div say Cash!
4.21 What accounting standards are followed?	Vietnam	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes: According to the State regime	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Titles: Deputy General Director and Deputy Accountant	

Topic	Response	Remarks
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	Yes	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes. The WSDC Hoi An Water Division will also be involved.	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes	Mitigated by frequent external audit, see below
5.2 What are the qualifications and experience of audit department staff?	With many years of experience	
5.3 To whom does the internal auditor report?	Board of Directors and relevant persons	
5.4 Will the internal audit department include the project in its work program?	Yes	

Topic	Response	Remarks
5.5 Are actions taken on the internal audit findings?	Audit – report – recommend - propose	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes- HCM auditing and informatics service Ltd.	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No – the audited report is available at required time	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	The entity auditor	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	If any	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Yes	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes – Vietnam and International accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	- Quarterly - annually - Convenient	
7.4 Does the reporting system need to be adapted to report on the project components?	At the project requirements	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes	

Topic	Response	Remarks
7.7 Are financial management reports used by management?	C6 Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Automated accounting system	
8. Information Systems		
8.1 Is the financial management system computerized?	Yes	The accounting software acquisition and its maintenance and support would be required to be procured separately. This may be packaged with the assistance required to customize and implement AFM manual and the initial training of FM staff. (FM Capacity Building)
8.2 Can the system produce the necessary project financial reports?	Yes	
8.3 Is the staff adequately trained to maintain the system?	Yes	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Table 1: Subprojects and EA/IAs under New and Improved Climate Change Resilient Urban Infrastructure in Dong Hoi and Hoi An

Component	Sub-Component	Flow of Funds	EA/IA
Quang Nam Province (Hoi An City)			
1	Water Source Protection and Utility Efficiency	Funds on-lent by MOF to QN WSDC	QN WSDC
2	Co Co River UDA		
	Land use and urban management plan, buffer area, roads and drainage, sewerage and drainage		
	Access Road	Funds on-lent by MOF to QN PPC	QN PPC
3	Flood Management and Coastal Protection		
4	Project Management and Climate Change Support		
Quang Binh Province (Dong Hoi City)			
1	Bao Ninh UDA - Wastewater Networks, Stormwater Systems, Road Extensions, Master Plan, Coastal Erosion Program	Funds on-lent by MOF to QB PPC	QB PPC
2	Dong Hoi Wastewater Management		QB URENCO for Bao Ninh UDA wastewater network and Dong Hoi Wastewater Management
3	Project Management and Climate Change Support		

Source: Asian Development Bank.

TERMS OF REFERENCE

Project Implementation Support Consultant

1. Scope of Work

1. The consultant will (i) support overall project implementation, and (ii) supervise construction for all civil work contracts. The scope of service is summarized as follows.

a. Overall Project Implementation Support

2. The consultant will:

- (i) support the EAs and IAs to ensure that project implementation will fully comply with government's and ADB's policies and operational requirements in terms of detailed designs, procurement, construction supervision, disbursement, financial management, monitoring and evaluation, social and environmental safeguards policy; climate change adaptation and climate proofing guidance; poverty reduction, gender and development, social inclusion, and civil society participation policies;
- (ii) provide trainings for the EAs, IAs, and PMUs on project implementation management to ensure that the project will be implemented in compliance with ADB and government policies and procedures.
- (iii) prepare and conduct capacity development programs targeting long-term sustainable urban infrastructure management, climate change adaptation and environment protection. The program include public infrastructure planning and implementation, operation and maintenance, financial management and cost recovery, and environmental management and climate resilience; and
- (iv) prepare and conduct public awareness raising program targeting public health, social inclusion, gender and development, environmental protection.

b. Construction Supervision for Civil Work Contracts

3. The consultant will:

- (i) undertake construction supervision including defect liability period for all civil work contracts, which will also include the complete implementation of the EMP. The consultant will undertake the engineer's responsibilities specified in the civil work contracts in which FIDIC contract conditions will be used;
- (ii) administer the construction contracts in accordance with the contract conditions; and ensure that all works comply with the approved engineering designs and technical specifications, agreed schedule and budget, terms and conditions of the contracts, standard engineering practice, and ADB's safeguards policy;
- (iii) provide general guidance, issue instructions to contractors, and make engineering decisions in consultation with the IAs;
- (iv) certify the interim and final payment requests submitted by the civil work contractors;
- (v) report and advise the IAs and PMUs on work progress, quality control (including application and compliance with climate resilience construction standards), and implementation issues during civil work contract implementation; and

- (vi) undertake detailed tasks required for each of the consultant team member.

2. Detailed Tasks

4. The consultants will be based at the lead implementing agency in Quang Nam Province, but will be required to travel frequently to the other implementing agency in Quang Binh Province and to the subproject sites. The consultants will provide support and advice to both executing agencies, implementing agencies, and PMUs regarding project implementation activities. All consultants will report directly to the team leader or in the team leader's absence to the deputy team leader, and will work closely with other consultants.

a. Team leader / international civil / municipal engineer (28 person-months (pm)) and deputy team leader / national civil engineer (54pm)

5. The team leader will take overall responsibilities of the consultant team defined by the terms of reference (TOR) and directly perform the tasks. The deputy team leader will be national specialist, and assist the team leader to accomplish assigned tasks. Followings are their detailed tasks.

Overall management and project implementation

6. The team leader and deputy team leader will:

- (i) establish the consulting services office, and coordinate and manage the overall consulting services inputs;
- (ii) develop strong working relationship with EAs, IAs, and PMUs; and ensure smooth coordination among them;
- (iii) ensure that a multidisciplinary team is formed within the EAs, IAs and the PMUs in particular for oversight on climate proofing and environment vulnerability due to the cross cutting nature of the tasks.
- (iv) confirm commitments to project implementation from all stakeholders;
- (v) develop detailed time bound implementation schedule;
- (vi) help oversee project overall financial management and accounting;
- (vii) ensure proper and timely submission of regular progress reports to EAs, IAs, PMUs, and ADB, particularly the progress against target indicators;
- (viii) initiate actions in the event of any adverse variances against the original plan; and
- (ix) participate as a member of an ADB's project completion review, responsible for overall project implementation.

Construction supervision

7. The team leader and deputy team leader will:

- (i) ensure quality control over detailed designs, cost estimates, bidding documents, construction, goods delivery, including the adoption of climate resilience standards as delineated by the MOC for climate proofing urban infrastructure, and commissioning;
- (ii) review and finalize the detailed designs, cost estimates, and bidding documents for the engineering components;

- (iii) help ensure all resettlement and environmental impact mitigation measures are fully implemented, ensure associated reporting is completed, and minimize adverse environmental and social impacts during construction;
- (iv) provide site management guidance in relation to the construction;
- (v) help conduct project planning, scheduling, and reporting of project activities under the civil construction components;
- (vi) help ensure the quality of the construction components;
- (vii) help prepare a detailed procurement for the first 18 months, and revise and update it in the subsequent years;
- (viii) help prepare bidding documents for civil works and goods, detailed monitoring and evaluation surveys; and
- (ix) provide overall support for selection of contractors and suppliers, contract management, and quality control and inspection.

Capacity development and awareness program

8. The team leader and deputy team leader will:

- (i) provide initial training in project management and oversight for staff of EAs, IAs, PMUs;
- (ii) include specific awareness building on climate change adaptation measures and climate proofing through the application of climate resilience planning and construction standards.
- (iii) help ensure compliance with the relevant ADB policies and guidelines;
- (iv) coordinate with the team members in developing and conducting capacity development programs for the relevant local government agency staff on the importance of strategic long-term urban and spatial planning, sustainable urban infrastructure management, and climate change adaptation and environment protection;
- (v) help provide overall guidance to the capacity development and training programs and community awareness programs; and
- (vi) help arrange for smooth handover of the project facilities to the agencies responsible for operation and maintenance.

b. Climate change / urban planners (7pm for an international and 7pm each for two national consultants)

Dong Hoi city-wide

9. The climate change / urban planners will:

- (i) assist in formalizing the climate change steering committee and developing Dong Hoi climate change adaptation plan,
- (ii) ensure that climate proofing measures proposed are integrated in the relevant sections of the IEE as part of the analysis of alternatives of engineering designs; assessment of environment and social impacts and the EMPs.
- (iii) provide advices to the city leaders as to strategic direction of climate change adaptation capacity and provide guideline for climate change adaptation to be integrated into all city management and administration works;
- (iv) support and monitor the various climate change adaptation activities,

- (v) develop and apply a series of climate change awareness interventions in synergy with the management of environment impacts and vulnerability risk, and
- (vi) train the related agencies on climate change adaptation issues and strategies, vulnerability risk reduction.

Bao Ninh Peninsula in Dong Hoi

10. The climate change / urban planners will:

- (i) finalize the detailed master plan for development of Bao Ninh Peninsula;
- (ii) draw synergy with the the green city action plans prepared for Vinh Yen and Hue and approved by GOV, MPI and the cities.³³
- (iii) conduct a visioning exercise, problem analysis, and stakeholder consultations on development of Bao Ninh Peninsula as an eco tourism area;
- (iv) help identify capacity development needs in urban planning and management;
- (v) conduct climate change awareness raising for the relevant local government agencies;
- (vi) support implementation of the embankment, beach, and dune protection plan in Bao Ninh Peninsula; and
- (vii) ensure that climate proofing measures proposed are integrated in the relevant sections of the IEE as part of the analysis of alternatives of engineering designs; assessment of environment and social impacts and the EMPs.

Hoi An

11. The climate change / urban planners will:

- (i) assist in formalizing the climate change steering committee;
- (ii) provide advices to the city leaders as to strategic direction of climate change adaptation capacity and provide guidelines for the city eco green development plan to be integrated into all city management and administration works;
- (iii) assist in finalization of the climate change action plan provided by UN Habitat report (taking into account the integration to the eco green plan of the city);
- (iv) support and monitor the various climate change adaptation activities;
- (v) develop and apply a series of climate change awareness interventions;
- (vi) train the related agencies in climate change a daptation issues and strategies; provide on-the-job training for all members of the climate change steering committee;
- (vii) advise on the city's eco green macro planning and management for its implementation;
- (viii) advise on eco transport strategies, especially related to pedestrian, bicycle, and motorbike zoning;
- (ix) advise on eco tourism strategies;
- (x) develop a management information system for the city to monitor and coordinate all environment and climate change adaptation activities and projects;
- (xi) carry out a public administration reform exercise and recommend structural changes and human resources management strategy for more effective urban services;

³³ ADB. 2015 (forthcoming). *GrEEEn City Action Plan, Hue, Viet Nam*. Manila: ADB. 2015 (forthcoming). *GrEEEn City Action Plan, Vinh Yen, Viet Nam*. Manila.

- (xii) prepare an e-government strategy for Hoi An and support its institutionalization and implementation;
- (xiii) assist in rationalizing and consolidating the various urban eco green plans and committees for Hoi An e.g. flooding committee, eco-biology reservation committee for Cu Lao Cham Island, and make them effective and functional;
- (xiv) provide on-going advice to the top city leaders; and
- (xv) ensure that climate proofing measures proposed are integrated in the relevant sections of the IEE as part of the analysis of alternatives of engineering designs assessment of environment and social impacts and the EMPs.

c. Financial Management Specialists (5pm for an international, and 18pm each for two national consultants)

12. The consultants' main tasks will be the followings:

- (i) plan and organize financial management training seminars for the accounting staff in the PMUs and key staffs of the executing agency which will cover loan disbursement procedures, and repayment requirements, and financial management practices for ADB financed projects;
- (ii) incorporate good practices and knowledge for project accounting by providing on-the-job training;
- (iii) identify any issues in the financial management system for project implementation in the implementing agencies and PMUs, and recommend measures to address the issues identified;
- (iv) advise implementing agencies and PMUs on organizational arrangements for effective financial management for project implementation;
- (v) assist the implementing agencies and PMUs to develop procedures for financial accounting, reporting and auditing, and loan disbursement for the project;
- (vi) assist executing agencies and implementing agencies to develop a plan of repay the loans fully and timely in line with the agreed onlending conditions from the Ministry of Finance to the Quang Binh PPC, Quang Nam PPC, and Quang Nam WSDC;
- (vii) assist the implementing agencies to develop a road map of increasing relevant tariff for cost recovery and the loan payment of the project;
- (viii) guide and assist the executing agencies and PMUs to process ADB loan withdrawal applications in accordance with ADB's procedures;
- (ix) assist the implementing agencies to coordinate with the respective PMU and communicate with ADB in relation to financial management and loan withdrawal matters;
- (x) support the executing agencies, implementing agencies, and PMUs to prepare documents for loan withdrawal including certificates and reporting formats for efficient and effective flow of funds between ADB, government, executing agencies and PMUs, and contractors;
- (xi) assist the executing agencies, implementing agencies, and PMUs to prepare and update continuously financial records, projections, and reports of the project in accordance with procedural requirements of ADB and the government;
- (xii) review current budgeting, accounting, and financial reporting in the executing agencies and PMUs, and treasury agencies at the provincial and city levels; and recommend changes to improve the efficiency and accuracy of budgeting, accounting, and financial reporting systems;

- (xiii) review internal control systems in the executing agencies and PMUs, and recommend improvements for internal control systems; and
- (xiv) participate as a member of an ADB's project completion review responsible for financial management and economic analysis.

d. Contract Management Expert (15pm each for two national consultant)

13. The consultant' main tasks will be the followings:

- (i) review the procurement plan and bidding documents updated and prepared by the independent international and national procurement specialists;
- (ii) train staff of the executing agencies, implementing agencies, and PMUs on ADB procurement guidelines;
- (iii) help prepare remaining bidding documents for civil works and goods, detailed monitoring and evaluation surveys;
- (iv) ensure that the updated EMPs are included in the contract and bidding documents;
- (v) ensure that all contract and bidding documents include refernce to applicable national standards on climate resilience as delineated by the Ministry of Construction;
- (vi) provide overall support for selection of contractors and suppliers, contract management, and quality control and inspection;
- (vii) assist with harmonization of the government's and ADB's procurement requirements;
- (viii) advise on the preparation of bidding documents, including selection criteria;
- (ix) recommend procedures to cover alternative procurement options, including international and national competitive bidding and shopping for low value inputs;
- (x) assist in drafting bidding documents for detailed monitoring and evaluation surveys, including selection criteria;
- (xi) advise on the selection of shortlisted firms to undertake contracted work, and on the selection of the preferred bidder;
- (xii) in association with the road engineers, civil engineers, and others technical engineers, ensure systems are in place for inspecting materials, equipment, and machinery used by contractors in the delivery of agreed services;
- (xiii) advise on the introduction of any quality control and inspection systems to be introduced as part of the overall contracting process;
- (xiv) assist with the preparation of reports for the executing agencies and implementing agencies and ADB on procurement progress and action plans, and any associated action that may be required; and
- (xv) provide additional training or mentoring on procurement issues as requested.

e. Environmental and Climate Proofing Monitoring Specialists (6pm for an international and 18pm each for two national consultants)

14. The consultants' main tasks will be the followings:

- (i) ensure implementation of the EMPs for all sub projects
- (ii) ensure integration of environment impacts in the IEEs and the EMPs, related to the measures proposed in the local resilience action plan in Dong Hoi and the climate change adaptation plan in Hoi An,

- (iii) ensure that the IEEs contain appropriate references to the eco-city and green growth strategies for Quang Nam Province , and update the IEEs and the EMPs with any changes for climate proofing specific to sub-projects designs.
- (iv) ensure appropriate updates to all IEEs and EMPs in particular reference to construction standards on climate resilience adopted for the design of all urban infrastructure
- (v) review and update the environment management plans (EMPs) as may be necessary especially if there are changes in the project components;
- (vi) ensure and conduct sampling and monitoring of environmental quality data related to the project as prescribed in the EMP/EMoP;
- (vii) conduct independent monitoring of EMP implementation status and additional environmental monitoring if necessary, to verify that issues reported in the internal environmental monitoring report, quarterly progress report, and semi-annual environmental progress report are in compliance with ADB's safeguard and other relevant policies;
- (viii) make recommendations to resolve any issues and/or problems in implementing the EMPs, and provide advice to the executing agencies and implementing agencies;
- (ix) Conduct detailed review on project impacts on environment, their environmental impact mitigation measures, and enhancement measures; and
- (x) submit English and Vietnamese external environmental monitoring verification report to the executing agencies and ADB with quality acceptable to ADB semi-annually basis during project implementation period.

f. Resettlement Specialists (6pm of an international and 18pm each for two national consultants)

15. The consultants' main tasks will assist and supervise all social and resettlement- related activities. Their responsibilities include the following:

- (i) Work closely with PMU, Centre for Land Fund Development, local authorities at all levels on all resettlement-related activities;
- (ii) Assist in the conduct of the information campaigns, public consultation and community participation;
- (iii) Assist in the verification of census, inventory of losses and detailed measurement survey activities;
- (iv) Check the accuracy of the AH database prepared and provide improvements if necessary;
- (v) Preparation of updated RPs;
- (vi) Assist and improve, if necessary, procedures for the coordination of resettlement and compensation activities;
- (vii) Ensure that grievances are addressed promptly and properly and that grievance redress mechanism is functioning well;
- (viii) Provide necessary training on grievance if needed;
- (ix) Establish and implement liaison mechanisms to ensure proper technical and logistical support to PMU, local administrative authorities, resettlement committees and concerned government departments;
- (x) Establish and implement procedures for ongoing internal monitoring; assist in preparing monitoring reports; and

- (xi) Design and deliver capacity development activities for all relevant agencies, as needed, in the areas of ADB resettlement policy; participation and communication; and gender and development.

g. Social Development and Gender Specialist (6pm of an international consultant)

16. The consultant will liaise with the national gender training specialist to ensure consistency in messages and approaches. The consultant's main tasks will be the followings:

- (i) review and revise the GAP, Participation Plan (PP) and Stakeholder Communication Strategy (SCS), if necessary to align plan activities with project outputs;
- (ii) build support for GAP, PP, and SCS implementation through targeted meetings, presentations, workshops, etc. with the executing agencies and other project stakeholders;
- (iii) work with Vietnam Women's Unions to develop guidelines for project supported revolving funds to assist poor households to access project benefits in water supply and sanitary infrastructure and to support poor households in climate change adaptation efforts;
- (iv) establish the institutional mechanisms to track progress of GAP, SCS, and PP implementation;
- (v) maintain oversight of GAP, SCS, and PP implementation, identify challenges and weaknesses in implementation, and develop strategies to overcome these; and
- (vi) prepare reports as required. Utilize GAP Progress Report template for monitoring of the GAP.

h. Gender Training Specialist (6pm each for two national consultants)

17. The consultants will work closely with the international gender specialist and the training officers within the PMUs who will be responsible to ensure compliance with project training approaches and policies. The consultants' main tasks will be the followings:

- (i) assess gender and development training needs in Hoi An and Dong Hoi with the four project focal groups i.e. project-appointed staff, staff of collaborating and related agencies, staff of the implementing agencies and staff of communes and wards including staff and representatives of Women's Union, Youth Union, and Farmer's Union;
- (ii) as a training tool and through consultation with stakeholders including the PMU gender focal point, develop gender plans and gender training programs in each city for each group;
- (iii) prepare training materials and present appropriate training programs in each city for each group. These programs will include sessions on ADB's gender policies and approaches, Vietnam's legal framework supporting gender, gender issues related to climate change adaptation including public health issues, particularly at communities level and gender concerns, and gender issues in urban infrastructure development;
- (iv) in consultation with stakeholders, monitor project gender training program and gender plan implementation for each city;

- (v) work with the international gender specialist and the Women's Unions in Dong Hoi and Hoi An to develop guidelines for project supported revolving funds to assist poor households to access project benefits in water supply and sanitary infrastructure and to support poor households in climate change adaptation efforts;
- (vi) provide gender advisory services for stakeholders throughout the life of the project as requested by the PMUs; and
- (vii) prepare project reports as required, including student assessments of courses and delivery for each session, progress of training programs and implementation of gender plans and advisory services provided.

3. Qualifications and Experience Preferred

Expert	Qualifications	Work Experience
International		
Team leader / civil / municipal engineer	Masters in civil engineering or related subject	15 years of experience in implementing externally funded urban infrastructure projects
Climate change / urban planners	Degree on urban planning or related subject	10 years of experience in urban planning / development / management
Financial Management Specialists	Recognized professional accountancy qualification	10 years of experience in municipal finance / financial management / accounting
Environmental Monitoring Specialists	Degree in environmental science/planning or related subject	10 years of experience in environmental management assessment / monitoring
Resettlement Specialists	Degree in social sciences, sociology or related subject	10 years of experience in implementation and monitoring of social safeguard in Viet Nam
Gender Specialist	Degree in social sciences, sociology or related subject	10 years of experience in social analysis / gender development with urban communities
National		
Deputy team leader / national civil engineer	Degree in civil engineering or related subject	10 years of experience in civil engineering
Climate change / urban planners	Degree on urban planning or related subject	8 years of experience in urban planning / development / management
Financial Management Specialists	Qualified accountant with a degree in business management or accounting	8 years of experience in municipal finance / financial management / accounting
Contract Management Expert	Degree in civil engineering or related subject	8 years of experience in procurement and contract management of externally funded projects
Environmental Monitoring Specialists	Degree in environmental science/planning or related subject	8 years of experience in environmental management assessment / monitoring
Resettlement Specialists	Degree in social sciences, sociology or related subject	8 years of experience in implementation and monitoring of social safeguard
Gender Training Specialist	Degree in social sciences, sociology or related subject	8 years of experience in social analysis / gender development with urban communities

TERMS OF REFERENCE INTERNATIONAL URBAN PLANNER

1. Scope of Work

1. The consultant will assist Quang Binh URENCO and Quang Nam WSDC in managing the process to prepare detailed planning and detailed engineering design. A team of national experts will be engaged for each of Dong Hoi and Hoi An components. The international urban planner will study the feasibility study reports produced by the project preparatory technical assistant (PPTA) consultant, and ensure that the national consultant teams strictly follow the preliminary designs in the reports.

2. Detailed Tasks

2. The consultant will:
- (i) guide national consultant teams in the preliminary design and detailed urban planning activities;
 - (ii) review preliminary designs documentations and proposals for site investigations;
 - (iii) review results of site investigations and proposed design criteria prepared by the national consultants;
 - (iv) conducting technical review and providing expert comments on engineering detailed design in accordance with the design codes and standards;
 - (v) conducting site visits; and
 - (vi) ensure that climate proofing is included in the design of all of the facilities following best practice and guidance of PPTA reports.

3. Output Requirements

3. The consultant will prepare and submit the following reports:
- (i) monthly progress reports,
 - (ii) an interim report for Dong Hoi summarizing preparation of the preliminary studies within 4 months from commencement of the assignment,
 - (iii) an interim report for Hoi An summarizing preparation of the preliminary studies within 6 months from commencement of the assignment,
 - (iv) a final report for Dong Hoi summarizing preparation of the final designs within 10 months from commencement of the assignment, and
 - (v) a final report for Hoi An summarizing preparation of the final designs within 14 months from commencement of the assignment.

4. Implementation Arrangements

4. The consultant will be engaged over 15 months, tentatively from April 2016 to July 2017, to provide a total of 6 months inputs intermittently. The consultant will be recruited as an individual consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

5. Qualification

5. The consultant will have a Masters degree or higher in urban planning, municipal engineering or other relevant discipline. The consultant will have at least 15 years of work

experience in urban planning and municipal infrastructure design under official development assistance funded projects in developing countries in Southeast Asia.

6. Cost Estimates

6. Preliminary cost estimates are presented below.

Item	Cost
Consultant remuneration and per diem	150,000.00
Reports and communications	10,000.00
International and local travel	20,000.00
Contingency	20,000.00
Total	200,000.00

TERMS OF REFERENCE INTERNATIONAL PROCUREMENT SPECIALIST

1. Scope of Work

1. The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC in procurement matters as follows:

- (i) assist PMUs to update procurement plan as required;
- (ii) provide necessary training for PMU staff on ADB procurement requirements which include ADB Procurement Guidelines and ADB Guide on Bid Evaluation (as amended from time to time);
- (iii) prepare bidding documents for packages using international competitive bidding procedure (ICB), and the first bid document using national competitive bidding procedure (NCB) (to be used as sample for the next packages) following ADB standard bidding document, as appropriate;
- (iv) assist PMU in bid preparation and bid evaluation for each package; and
- (v) assist PMU with the preparation of progress reports to the executing agencies and ADB on procurement progress and action plans, and any associated action that may be required.

2. Detailed Tasks

2. The consultant will work together with the national procurement specialist as a team. The consultant's tasks will be based on the detailed engineering designs prepared by the national consultant teams engaged by Quang Binh and Quang Nam PPCs with support from the international urban planner. The consultant will:

- (i) study the detailed engineering designs of all subprojects, which are approved by concerned provincial departments;
- (ii) update the procurement plan as necessary;
- (iii) based on the approved detail engineering designs, work with PMU staff to develop the bidding documents, including specifications, priced bill of quantities etc. The draft bidding documents have to be acceptable to ADB and PMUs; and
- (iv) assist PMU procurement committees in bid evaluation process, from bid opening, bid evaluation, and preparation of bid evaluation reports.

3. Output Requirements

3. The consultant will prepare and submit the following outputs:

- (i) Hoi An: consultant recruitment document and draft proposal evaluation report for QCBS package by quarter 1 and 2 of 2016 respectively,
- (ii) Dong Hoi: bid document for the first NCB package by quarter 2 of 2016, and
- (iii) Hoi An: bid document and draft bid evaluation report for ICB package by quarter 3 and 4 of 2016 respectively.

4. Implementation Arrangements

4. The consultant will be engaged over 12 months, tentatively from April 2016 to March 2017, to provide a total of 6 months inputs intermittently. The consultant will be recruited as an individual consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

5. Qualification

5. The consultant will have a Bachelors degree or higher in engineering or construction economics or any other relevant fields. It is desirable that the consultant has certificate of professional procurement training. The consultant will have at least 10 year experience in project implementation financed by ADB or World Bank in Southeast Asia. The consultant will demonstrate good experience in (i) preparation of bidding document using ADB or World Bank standard bidding documents, (ii) preparation of bid evaluation reports, and (iii) sufficient English skills.

6. Cost Estimates

6. Preliminary cost estimates are presented below.

Item	Cost
Consultant remuneration and per diem	120,000.00
Reports and communications	5,000.00
International and local travel	15,000.00
Contingency	10,000.00
Total	150,000.00

TERMS OF REFERENCE NATIONAL PROCUREMENT SPECIALIST

1. Scope of Work

1. The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC in procurement matters as follows:

- (i) assist PMUs to update procurement plan as required;
- (ii) provide necessary training for PMU staff on ADB procurement requirements, which include ADB procurement guidelines, and ADB Guide on Bid Evaluation (as amended from time to time);
- (iii) prepare bidding documents for packages using international competitive bidding procedure (ICB), and the first bid document using national competitive bidding procedure (NCB) (to be used as sample for the next packages) following ADB standard bidding document, as appropriate;
- (iv) assist PMU in bid preparation and bid evaluation for each package; and
- (v) assist PMU with the preparation of progress reports for the executing agencies and ADB on procurement progress and action plans, and any associated action that may be required.

3. Detailed Tasks

2. The consultant will work together with the international procurement specialist as a team. The consultant's tasks will be based on the detailed engineering designs prepared by the national consultant teams engaged by Quang Binh and Quang Nam PPCs with support from the international urban planner. The consultant will:

- (i) study the detailed engineering designs of all subprojects, which are approved by concerned provincial departments;
- (ii) update the procurement plan as necessary;
- (iii) based on the approved detail engineering designs, work with PMU staff to develop the bidding documents, including specifications, priced bill of quantities etc. The draft bidding documents have to be acceptable to ADB and PMUs; and
- (iv) assist PMU procurement committees in bid evaluation process, from bid opening, bid evaluation, and preparation of bid evaluation reports.

4. Output Requirements

3. The consultant will prepare and submit the following outputs:

- (i) Hoi An: consultant recruitment document and draft proposal evaluation report for QCBS package by quarter 1 and 2 of 2016 respectively,
- (ii) Dong Hoi: bid document for the first NCB package by quarter 2 of 2016, and
- (iii) Hoi An: bid document and draft bid evaluation report for ICB package by quarter 3 and 4 of 2016 respectively.

5. Implementation Arrangements

4. The consultant will be engaged over 12 months, tentatively from April 2016 to March 2017, to provide a total of 9 months inputs intermittently. The consultant will be recruited as an individual consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

6. Qualification

5. The consultant will have a Bachelors degree or higher in engineering or construction economics or any other relevant fields. It is desirable that the consultant has certificate of professional procurement training. The consultant will have at least 5 year experience in project implementation financed by ADB or the World Bank in Viet Nam. The consultant will demonstrate good experience in (i) preparation of bidding document using ADB or World Bank standard bidding documents, (ii) preparation of bid evaluation reports, and (iii) sufficient English skills.

7. Cost Estimates

6. Preliminary cost estimates are presented below.

Item	Cost
Consultant remuneration and per diem	36,000.00
Reports and communications	1,000.00
Local travel	5,000.00
Contingency	4,000.00
Total	46,000.00

TERMS OF REFERENCE NATIONAL ENVIRONMENT SPECIALIST

1. Scope of Work

1. The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC update environment management plans (EMP) for Dong Hoi and Hoi An following the guidelines set forth in ADB's Safeguard Policy Statement (2009).

2. Detailed Tasks

2. The consultant's tasks will be based on the feasibility studies including initial environmental evaluation (IEEs) prepared by the project preparatory technical assistant (PPTA) consultant, and the detailed engineering designs prepared by the national consultant teams engaged by Quang Binh and Quang Nam PPCs with support from the international urban planner. Tasks to be undertaken will include, but not limited to:

- (i) desk study to review all necessary project documents including detailed engineering designs, IEEs, and relevant environment documents identifying specific environment issues and any changes in subproject designs;
- (ii) site surveys and consultations with relevant stakeholders on environmental issues and solutions. Public consultation on environmental impacts and appropriate mitigation measures will also be conducted when necessary; and
- (iii) updating of EMPs including environment impacts, mitigation measures and environmental monitoring program, institutional arrangement, capacity building, and cost estimates for EMP implementation.

2. Output Requirements

3. The consultant will prepare and submit two updated EMPs for Dong Hoi and Hoi An. The updated EMPs documents will be reviewed and endorsed by ADB.

3. Implementation Arrangements

4. The consultant will be engaged over 12 months, tentatively from April 2016 to March 2017, to provide a total of 4 months inputs intermittently. The consultant will be recruited as an individual consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

4. Qualification

5. The consultant will have a Bachelors degree or higher in environmental management, environmental sciences, environmental engineering, or any other related fields. The consultant will have at least 10 year experience in preparation of environmental assessment, EMP preparation and implementation, and environmental monitoring for infrastructure development projects financed by ADB or the World Bank in Viet Nam. The consultant should demonstrate comprehensive understanding on national administrative system and government organization, and sufficient English skills.

5. Cost Estimates

6. Preliminary cost estimates are presented below.

Item	Cost
Consultant remuneration and per diem	16,000.00
Reports and communications	3,000.00
Local travel	5,000.00
Contingency	2,000.00
Total	26,000.00

TERMS OF REFERENCE NATIONAL RESETTLEMENT SPECIALIST

1. Scope of Work

1. The consultant will help PMUs under the Quang Binh URENCO and Quang Nam WSDC update the two resettlement plans (RPs) for Dong Hoi and Hoi An, and conduct periodic external monitoring on resettlement implementation following the guidelines set forth in ADB's Safeguard Policy Statement (2009). The consultant will update the RPs to (i) integrate into the RPs all actual impacts of the subprojects, based on the approved detailed engineering designs, results of detailed measurement survey (DMS), and consultations with affected people (APs); (ii) include all actual mitigation measures and APs' right and entitlements of compensation, allowances, and livelihood restoration measures in the RPs; and (iii) estimate actual resettlement costs according to results of the DMS. All resettlement activities must be implemented in compliance with the updated RPs.

2. Detailed Tasks

2. The consultant will help PMUs update two RPs (one each for Dong Hoi and Hoi An), based on the original RPs. The consultant will (i) conduct consultations with APs about the subproject resettlement policies, including mitigation measures, APs' right and entitlements of compensation and relocation, compensation prices, and measures of income and livelihoods restoration; (ii) collect resettlement data, including DMS data; (iii) verify whether compensation prices reflect replacement costs; and (iv) update RPs in accordance with ADB policy on involuntary resettlement outlined in the Safeguard Policy Statement (2009).

3. Output Requirements

3. The consultant will submit PMU and ADB the following documents for each of the Dong Hoi and Hoi An components for review and approval.

Reports	Number of reports		Time frame
	Vietnamese	English	
Inception report	3	3	within 15 days from mobilization
Updated RPs	6	6	according to progress of DMS
Periodical monitoring reports	6	6	15 days after completion of field work
Post-resettlement evaluation report	3	3	20 days after completion of field work

4. Implementation Arrangements

4. The consultant will be engaged over 24 months, tentatively from April 2016 to April 2018, to provide a total of 8 months inputs intermittently, of which 4 months for updating RPs and 4 months for external monitoring. Questionnaire surveys may be contracted out. The consultant will be recruited as an individual consultant in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The contract will be signed with the Quang Nam PPC as the lead executing agency.

5. Qualification

5. The consultant will have a Bachelors degree or higher in sociology, anthropology, or other relevant social sciences. The consultant will have at least 10 year experience in

resettlement for infrastructure development projects funded by ADB or World Bank in Viet Nam. The consultant will demonstrate good skills in conducting surveys, comprehensive understanding on national administrative system and government organization, and sufficient English skills.

6. Cost Estimates

6. Preliminary cost estimates are presented below.

Item	Cost
Consultant remuneration and per diem	32,000.00
Reports and communications	3,000.00
Local travel	5,000.00
Contingency	4,000.00
Total	44,000.00

TERMS OF REFERENCE DONG HOI COASTAL MANAGEMENT

I. INTRODUCTION

1. Dong Hoi City is a Class III City with a population of 113,900 (census 2010) targeting Class II City status (population over 200,000) in 2015 or shortly thereafter. It is the administrative capital of Quang Binh province and is a major economic and tourism center in the northern central region of Viet Nam.

2. Flooding linked to typhoons is a common, almost annual occurrence. Floods in 2010 created widespread damage in Dong Hoi and loss of life; a recent typhoon (Typhoon Wutip) created large amounts of damage. Climate change through raising sea levels, possible increasing intensity of typhoons and therefore increased rainfall intensity and storm surge related wave set-up will most likely exacerbate these impacts. Key areas for focus of the Urban Environment and Climate Change Project are improvements of flood protection and erosion of the coastal dunes and the Nhat Le estuary and river, and the development of non-structural measures including dune protection and coastal zoning, hydrodynamic modelling and data collection.

II. BACKGROUND & ORGANIZATION OF THE ASSIGNMENTS

3. Nhat Le is an estuary of the Kien Giang River in the Quang Binh province, a province in Central Viet Nam. In last ten years, the estuary has been significantly changed due to the development, migration of a spit bar in the south bank, which obstructs the waterway navigation, and decreasing flood discharge capacity of the Nhat Le river and as consequent of the inlet evolution, both the northern beach and southern beach of the Nhat Le has being eroded, endangering the infrastructures of Dong Hoi city and especially the Bao Ninh peninsula.

4. The provincial government of Quang Binh plans to develop Bao Ninh Peninsula as new urban area for combined residential and commercial use, particularly tourism facilities including hotels, resorts, shops, and restaurants. The new urban area development is expected to generate employment and business opportunities which will contribute to poverty reduction. Together with the support to be provided under the proposed loan for the Urban Environment and Climate Change Adaptation Project including provision of climate change resilient urban land use and urban management plan, road extensions and construction, wastewater collection system, and stormwater management systems, this project will help develop a model for climate change adaptation for new urban developments in coastal cities in Viet Nam.

Figure 1. Map of Nhat Le River and Bao Ninh Peninsula



5. In general, construction of defenses to protect the coast line is difficult; most of the time building a dam or groyne out into the sea might have the desired effect on one side of the structure (accretion of the coastline), while erosion will take place at the other side. In order to study these effects the local bathymetry should be measured in a measuring campaign, a mathematical model will be built and various options for defense against erosion tested. Only when various options have been sufficiently tested a decision can be taken. For this reasons, the implementation of hydrodynamics study on the evolution of Nhat Le estuary and its adjacent beaches and some solutions to sustain the estuary is an urgent need.

6. With regard to Bao Ninh peninsula, the coastal dune system has been degraded and cut up by the urban development on the peninsula. The construction of a storm water drainage system along the beach, including the construction of five corridors for the drainage pipes and outlets and an open channel which releases storm water to the sea, has cut the sand dune system into 7 isolated sections. These isolated sections have become vulnerable for erosion at both sides, since the vegetation has been removed from the slopes. The construction of the storm water drainage system cutting through the sand dunes also provides access roads to the dunes and promotes illegal and uncontrollable sand mining at the cutting location.

7. More importantly, the existing divided sand dune system on Bao Ninh peninsula has lost a major part of its protective capability for the area behind the dunes during extreme weather conditions such as tropical storms and sea level rise in the future.

8. The urban development on the Bao Ninh peninsula, especially the development of resorts and hotels along the beach (including 6 resorts and hotels, in which 2 of them are in

operation since 2012) has cut through the land boundary of the sand dune system. The development of such resort, hotel and flattening of the ground surface (also for better view to the sea from the resort and hotel) has also replaced the natural original vegetation and plant on the dune surface by other plants, which is suitable only for resort. As a consequence, the vegetation layer, covering and protecting of the sand dune system has been destroyed. It will promote for sand blowing, and surface erosion (also due to rainfall) on the remaining section of the dune.

9. The natural boundary of the coastal sand dune system along the Bao Ninh peninsula, from the square to the end of 60 meter (m) road has been broken. The topographical map of 2010 of the Quang Binh Institute of Planning and high resolution satellite images (Sport Image in 2011, from Google Earth) show that the natural boundary of the dunes runs parallel to the old 9m road at a distance of about 200m from the shoreline. The sea-boundary of the dune system is located at the mean high water (corresponding to H2% of +2.03m), and the land boundary of the dune is situated at an elevation of + 2.5 to + 3.0 m.

10. South of the Bao Ninh peninsula, from the end of the 60m wide road to the south, the natural dune system is still in good condition. This area has been marked for future urban development. In view of the planning mistakes made during the development of the first part of the Bao Ninh urban development, guidelines are required to safeguard this natural and attractive landscape and to ensure its capacity to protect the land against severe natural conditions and man-made interventions.

11. The area under consideration is largely untouched. A 5m wide road runs through the dune area but in principle this road does not have much impact to the dunes since traffic is light. On the landside of the dune, near to the dune foot, there are two shrimp farms in operation. The farms take water from the sea and discharge waste water to the beach by a pipeline system running under the dunes.

12. Effective management of this coastal zone relies upon decision makers having access to appropriate information on the nature and resources of their zones. This information pertains to the natural functions of the coastal areas, description of stakeholders and their interests, and identification of available organizational and technical resources to overcome difficulties.

13. The executing agency will be the Quang Binh provincial people's committee, the implementing agency will be the Quang Binh provincial urban environment company (URENCO), and the project management unit (PMU) has been established under the Quang Binh URENCO. Other agencies involved in the development of the Bao Ninh Peninsula particularly in protecting the zone from future extreme events (most notably typhoons), will also be involved preparation and implementation of the project.

14. The project will provide two assignments: Assignment A – Hydrodynamic Study and Assignment B – Bao Ninh Dune Restoration & Protection Study. A team of international and national consultants will be engaged through firm(s) using quality- and cost-based selection procedures (quality:cost ratio of 90:10) in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time). Civil works contract(s) will be procured using national competitive bidding procedures in accordance with ADB's *Procurement Guidelines* (2013, as amended from time to time).

III. A – HYDRODYNAMIC STUDY

15. These Terms of Reference (TORs) cover the scope and requirements for a national firm to assist the Assignment provincial authority of Quang Binh province in the following tasks:

- Evaluate stability in the Nhat Le river mouth and the historical evolution of the mouth and its adjacent beaches.
- Identify the causes of beach erosion and the mechanisms of beach erosion, taking into account impacts from changes in the upstream reaches and watershed and human activities on the beach.
- Carry out additional bathymetrical survey and hydrodynamic survey at the study area.
- Implement mathematical modeling (at least 2D) for Nhat Le river mouth.
- Study the evolution of the river mouth and analyze impacts of various options to defend against erosion and stabilize the river mouth.

a. Description of tasks

i. Data collection

Bathymetrical data

- Most recent bathymetry of the Nhat Le river system that needs to be studied.
- Topography of the left and right banks along the river to include in the model when high water levels and flooding areas.
- Most recent bathymetry of the Nhat Le river mouth and the area of the works.
- Most recent bathymetry of the area of the project (at least a couple of kilometers (km) from the beach towards the sea and also 15km to left and right of the area of the mouths of the Nhat Le river)
- Nautical chart of the area.

Hydro-meteorological data

- List of water levels gauges, along the Nhat Le river and meteorological gauges on the Nhat Le river basin.
- Time series of water levels at each of the gauges. At least 20 years of measurements for each of the stations.
- Flow Discharge vs Water Level relations at the water level gauges along the river. Usually there is a discharge vs water level relation curve at each of these stations. At least 20 years of the discharge time series at all gauges.
- Time series of flow discharges for all the tributary rivers of the Nhat Le river, Dai Giang river, and Kien Giang river (in the area of the project).

Sediment data

- Measurements of suspended sediment concentration in the river at different locations along the river. We need to determine the amount of sediment in suspension at different locations and at different periods in the year. Sieve curves of the sediment.
- Time of sediment at the bottom of the river at different locations. We need to know about the available type of sediment and soil along the river, and along the beach. Sieve curves of the sediment.

Hydro-marine data

- List of water levels gauges on the sea near by the project area (if available).
- Time series of water levels at each of the gauges. At least 20 years of measurements for each of the stations.
- List of wave gauges on the sea near by the project area.
- Time series of wave parameters at each of the gauges (at least wave height and wave period). At least 20 years of measurements for each of the stations.
- List of wind measurements on the sea and close to the coast.
- Time series of wind parameters at each of the gauges. At least 20 years of measurements for each of the stations.
- Measurements of suspended sediment concentration in the area of the study and the mouths of the Nhat Le river. The data will be used for determining the amount of sediment in suspension at different locations and at different periods in the year. Sieve curves of the sediment.
- Time of sediment at the bottom of the sea and the beach at different locations. The data will be used for determining the available type of sediment and soil on the beach and the sea. Sieve curves of the sediment.
- Historical maps to know about the evolution of the coast and the mouth of the rivers in the last 50 years.

ii. Bathymetry survey

Additional bathymetry survey for implementing mathematical modelling will cover sea floor at Nhat Le mouth, on Nhat Le river and sand barrier on both sides of the mouth, the scope of the survey is expected to be about 50 km² (see maps for draft bathymetry survey).



Propose bathymetry survey region for Nhat Le river mouth

Scope of the survey. The bathymetry survey area about is 50 square-kilometers (km^2), in which 40km^2 at the sea and 10km^2 on the Nhat Le river. The bathymetry survey at the sea is extending 5km from the mouth on both banks and 4km to the sea to the depth of 10m. The bathymetry survey on the Nhat Le river is extending to the Quan Hau bridge.

Scale of the bathymetry survey maps. 1/5000, 2m contour (topographic grade of V)

Survey Time. Due to bathymetry of study area is strongly influenced by seasonal factors, including wave, winds, littoral drift and river flow thus the bathymetry surveying needs to be conducted two times in a year. The first bathymetry survey will be carried out from September to December, in the flood and storm season (when the NE monsoon prevailing) and the second one is from March to June dry season (when the SW monsoon prevailing).

Expected product. 2 bathymetry maps of Nhat Le river mouth and Nhat Le river, area of 50km^2 , scale of 1/5000, with 2m depth contour. The maps should be delivered in VN2000 projection.

iii. Hydro-dynamics measurements

Hydrological data collection

Water levels and tidal regimes data will be collected from all permanent tidal observation stations, which are located near by the project site and managed by The Viet Nam hydro-meteorological office during the last 10 years.

Water level observation

Besides collecting data from national gauging stations related to study area, one additional permanent gauging station needs to be installed on the Nhat Le river near the junction of Dai Giang river and Kien Giang river. Observation period of permanent station will be 15 days. Reading water level regimes will be taken on the gauge every hour per data log during 15 days.

The additional permanent gauge will be established by closed levelling traverse from reliable bench marks of known height relative to Viet Nam National Chart Datum, the staff gauges will be fixed to permanent structures (concrete or stone masonry).

Discharge Measurement

Water discharge measurement will be established on a cross-section at the Nhat Le river near the mouth by the equipment is Acoustic Doppler Current Profiler (ADCP) instrument.

Direction and current speed are to be measured over one selected tidal cycle – spring tide, spanning 24 hours at three hours interval.

The current data will be logged together with positioning data during the survey; the specialized software will be used to calculate all parameters of discharge as in design requirements.

Wave, Tide, and Current survey

Tide will be measured in 15 continuous days at 60 minutes interval at 1 point on the Nhat Le beach. The additional permanent tide gauge will be established by closed levelling traverse from reliable bench marks of known height relative to Viet Nam National Chart Datum, the staff gauges will be fixed to permanent structures (concrete or stone masonry).

Wave/Current will be measured in 15 continuous days at 15 minutes interval by Acoustic Wave And Current Profiler (AWAC) instrument at 1 point in Nhat Le river mouth. Position of observation points are determined by GPS system with accuracy of $\leq 3\text{m}$.

Wave height, period and wave direction are to be measured 15 continuous days at 15 minutes interval.

Current profiles (including direction and current speed at different layers) over the water depth at the measured location are to be measured in the same period with wave and in the same interval.

The data will be processed with specialized software to get harmonic constituents, data tables and water level charts as required.

Sediment Sampling

In total, 50 water samples and 50 sediment samples will be collected along Nhat Le river and Nhat Le mouth and along the beach. At one location, one water sample and one sediment sample will be taken simultaneously.

The precise location of the required samples will be specified by the consultant. The positioning during sampling will be determined by GPS positioning system with accuracy of ± 3 m. Sediment samples, representative of the top 0.1–0.2m of the bed, will be obtained by grab, volume of about one liter will be returned for laboratory analysis. All the samples will be numbered, described briefly at the site. Each sample will be packed in a hermetic plastic bag or container and labelled with sample number, date and time of recovery. Samples will be stored in a sheltered place away from direct sunlight and returned to the laboratory without delay for carrying out analyses.

All the coordinates of the sample will be submitted to the PMU under the Quang Binh URENCO.

Water and sediment samples are to be analyzed by means of well-established standard procedures to yield the following:

- suspended solid concentration;
- percentage of gravel (> 2 mm), of sand (63 microns to 2mm), and of clay/silt (< 63 microns) by wet sieving; and
- particle size distribution of the gravel/sand fraction by dry sieving resources.

iv. Mathematical modelling and hydrodynamics analysis

Objectives

- To study the roles of waves, currents and river flow to the evolution of the Nhat Le mouth and both beach in flood-storm season and in the dry season.
- Analysis the hydrodynamic regime and morphological evolution the river mouth and its adjacent beaches in short-term (seasonal) and in long-term (decades) temporal scale.
- Propose alternative solutions for protect the beach erosion at the Sun Spa resort and stabilize the Nhat Le river mouth.
- Identify any negative impacts to the river mouth and adjacent beaches due to implementing proposed solution for protecting the beach and stabilizing the river mouth.

Detail tasks

- Set-up tide and wave model for Nhat Le coast, including model calibration, verification and sensitivity analysis. The outputs of the tide and wave model will be key inputs for hydrodynamic modelling of the Nhat Le estuary and Bao Ninh beach.
- Set-up hydrodynamics and morphological modelling for Nhat Le estuary, including model calibration, verification and sensitivity analysis.
- Apply calibrated hydrodynamic mathematical model to simulate the hydrodynamic regime and morphological evolution of the Nhat Le estuary in the existing condition and after using the proposed solutions for protecting the beach and stabilizing the river mouth.
- Analyze the impacts of the proposed solutions to the Nhat Le river mouth and adjacent beaches corresponding to each solution.

v. Report and final consultation workshop.

The final products are expected to be developed in a consultative and collaborative manner with relevant national and provincial authorities, so that they have complete understanding of the final products. The products should be in a format that allows the immediate implementation of solutions on the ground.

The English to Vietnamese translation should be high-quality and both versions should be written by native speakers of each language. The consultant shall submit the final reports to the ADB and PMU, in digital form and in printed hardcopy, both in English and in Vietnamese (5 copies of each).

All digital deliverables are to be fully compatible with Microsoft Office software under Windows7, geospatial data should be delivered in VN2000 projection as open-source standard shape files for vector and geotiff for rasters to be compatible with all GIS software and Google Earth.

Assignment B – Outline TOR for Dune Restoration & Protection at Bao Ninh Peninsula

b. Dune Restoration

To restore the coastal sand dune system, several technical steps are recommended:

- Prepare a topographical map with scale of 1:1000 for the whole sand dune system.
- Assess the current status of the sand dune system and its surface vegetation.
- Sample and analyze the sediment on the sand dune at representative locations.
- Propose technical solutions to restore the dune at the damaged locations and to replant the vegetation layer on the dune surface. Restoring of the dune system and replanting could take 5 to 10 years. In the first few years, it may require maintenance and additional supplying of sand to the dune and monitoring plants on dune face.
- Prohibit further resort preparation work including flattening of the dune area and removal of existing vegetation at the plots, which are not developed yet. This would be in line with regulations proposed by the Quang Binh provincial people's committee.

Five corridors have been cut through the dunes, average size 100 x 70 x 3 m, or a volume of sand removed of approximately 100,000 cubic meters (m³). It is proposed to restore the dunes using half of this sand volume, or 50,000m³ against unit costs of VND 80,000/m³ or US\$4/m³.

Replanting then would be needed over a surface area of approximately 30,000m² against unit costs of VND 20,000/m².

c. Dune Protection & Zoning

Preparation of guidelines is proposed to provide the authorities with necessary information to enable sound planning of the Bao Ninh urban extension area. These guidelines should:

- prevent the planning mistakes which have been made during the planning of the first phase of the Bao Ninh urban development,
- follow relevant Vietnamese laws forbidding the destruction of the dune system,
- safeguard and maintain the existing attractive natural dune system, and
- provide for safety in the future by guarding against the effects of sea-level rise.

This plan should:

- strengthen the capacity of the authorities in establishment and enforcement of regulations;
- safeguard the boundaries of the dune system, based upon a up-to-date topographical map;
- establish a set back line from the high water line;
- define areas where special protection measures are needed;
- take into account the effects of sea-level rise; and
- put a halt to the discharge of waste water from the fishing farms into the sea.

The following activities should be undertaken:

- preparation of topographical map, scale 1:1000 over a length of 3.5km;
- preparation of cross-shore profiles along the 3.5km of coastline;
- description of institutional set-up related to the coastal zone, identifying agencies and their responsibilities;
- description of the natural circumstances in the coastal area, identification of the natural dune system and of areas which would need special protection (nature reserves);
- identification of stakeholders and their activities (fishermen, recreants, etc);
- identification of threats to the coastal zone, either natural or man-made (sea-level rise, sand mining, aquaculture, etc);
- study and collect information about coastal zone management systems elsewhere in the world; and
- draft guidelines to safeguard the integrity of the dune system of the Bao Ninh coastal area at present and in the future.
 - ✓ Identification of a set-back line
 - ✓ Identification of boundaries of the coastal dune system
 - ✓ Set-up a system for regular monitoring of the dune areas

d. Training & Public awareness

Training and public awareness promotion on dune protection at different levels will be developed and implemented.

1. Training needs assessment

- a. Assess training needs for coastal zone management and dune protection.
 - b. Identify target audiences at different levels.
2. Development of training materials and training program
 - a. Develop detailed training curricula and a package of appropriate coastal zone management training materials to address needs amongst target audiences at different levels (based upon the results of the training needs assessment): decision makers at provincial, district, and commune levels, government practitioners at provincial, district, and commune levels, and community and grass-root levels.
 - b. Develop training program and detailed training plan for each level.
 - c. Select candidates for each training course.
 3. Conduct of training at different levels to improve awareness on coastal zone management and coastal dune protection for children and local fishermen.
 - a. Develop comic books and simple guidelines or manual to improve awareness on coastal zone management and coastal dune protection for children and fishermen.
 - b. Work together with local primary schools in the coastal region of Dong Hoi to set-up awareness program.
 - c. Work together with local authorities and NGOs to set-up awareness program for fishermen.

IV. TEAM COMPOSITION

16. Consulting firms are encouraged to develop their own methodology, staffing plan, level of effort and work approach to accomplish the TORs. It is anticipated that the professional personnel listed below will be required to carry out the specific tasks.

17. The team leader is expected to have extensive experience in coastal hydrodynamics and morphology, project coordination and project management. She/he would be the main communication partner for the client and other external parties. The team leader will coordinate and manage the implementation of the assignments, including deploying all necessary personnel, supervising the work of all team members and guiding them as necessary, carrying out those tasks for which no professional specialist will be deployed, managing the dialog and interface with ADB and the executing and implementing agencies, compiling and submitting the deliverables stated above, and ensuring quality control and timely delivery of all deliverables.

18. In order to be able to fulfill the objectives of the assessment, suggested core team members include (but not limited to):

1. **Senior Coastal Geo-morphologist:** At least 10 years of experience in fluvial coastal geo-morphology including geography, geology and geotechnical engineering, sediment transport, and marine-hydrology is required;
2. **Senior Coastal Morphology Expert:** At least 10 years of experience in coastal morphology including coastal hydrodynamics, coastal sediment transport, beach and shoreline evolution, evolution of river mouth and estuary, especially experiences in

- coastal hydrodynamics and morphology of tidal inlet, estuary and river mouth along the central coast of Viet Nam
3. **Senior Coastal Survey Engineer:** At least 10 years of experience in engineering and coastal survey and measurement system, including tidal measurement, flow measurement, suspended sediment sampling and measurement, nearshore waves measurement and bed sediment sampling is required.
 4. **Senior Coastal Hydraulic Engineer:** At least 10 years of experience in engineering, coastal hydrodynamics, coastal structures design, beach erosion control measures design, and is required;
 5. **Senior Coastal Modeling Expert:** At least 10 years of experience in software systems including advanced numerical and mathematical modeling such as MIKE21C, Delft 3D (waves, flow, sediment transport and morphological development) is required;
 6. **Senior Coastal Protection Expert:** At least 10 years of experience especially in obtaining and analyzing coastal data, designing of coastal structure, ensuring compliance with relevant design standards/norms in the area of coastal protection and coastal structure design;
 7. **Remote sensing, GIS expert:** At least 10 years of experience in river and coastal morphology in Viet Nam is required. Experience in the design and implementation of open-source geospatial data platforms is highly desirable.

V. IMPLEMENTATION SCHEDULE

19. The two assignments will be undertaken in parallel with Assignment A completed in one year. It is envisaged that Assignment B will be undertaken over a 5 year period with years 2 to 5 largely involved with dune replanting and stabilization.

TERMS OF REFERENCE

HOI AN FLOOD FORECASTING AND WARNING SYSTEM

1. INTRODUCTION

1. In the ADB-PPTA 8171-VIE “Urban Environment and Climate Change Adaptation” project a number of project components have been identified that are supposed to improve flood management for Hoi An city and reduce flood damages in and around town. The proposed measures regarding flood management are: a) Co Co river dredging and embankment, b) Dyke and embankment Road 608, c) Cua Dai coastal protection, and d) increase storage in Lai Nghi reservoir and Phap Bao detention pond. These projects, however, are all local structural measures, that may provide some local protection and therefore may reduce flood damages in some respect, but they will hardly be effective in reducing the flood levels in Hoi An city.

2. After an in-depth sector analysis, assisted by computer simulations for the flooding in Vu Gia-Thu Bon river system and around Hoi An city, it was concluded that any substantial water level reduction in Hoi An can only be achieved by measures in the VGTB basin, specifically in the upstream basin, and focusing on both structural and non-structural measures. In this respect one might think about flood early warning and flood evacuation procedures, change of reservoir operation, catchment control, options for additional retention, diversion possibilities, etc. Specifically options for sustainable non- structural measures are to be analyzed, for instance measures that can reduce the flood discharge by affecting the rainfall-runoff process, slowing down the runoff by increased infiltration, by retention, or increased flood storage in the reservoirs.

3. One of the most urgent non-structural measures is the installation and upgrading of a comprehensive flood early warning system (FEWS) or flood forecasting & warning system (FFWS) for Vu Gia-Thu Bon river system, combined with a Decision Support System (DSS). Both the FFWS and the DSS will make use of GIS, Rainfall- Runoff models and a hydro-dynamic model. The role of the FFWS is clear: improve the weather forecasting to enable better flood warning and timely evacuation procedures, as well as enabling temporary flood protection measures. The DSS, i.e. the combined RR- and hydro dynamic models will enable the analysis and selection of both structural and non-structural measures regarding flood management. However, the DSS will also serve to study dry weather/dry season issues like water shortage problems and/or salinity intrusion.

4. It should be emphasized that the FFWS will be running in real time, as to provide actual weather data and flood forecasting information. The DSS (Rainfall-Runoff and HD model) are coupled in order to forecast flood levels at critical locations. All such information will have to be disseminated to relevant parties, province, River Basin Organization, cities, farmers etc.

5. The DSS itself will also have to be used for the planning of flood management and water resources measures in general, like an analysis of the effects of increased flood storage, flood diversion options, more retention in the basin, catchment control, as well as other structural and non-structural measures, and for low flow conditions options to increase water availability for water supply, and/or reduction of salinity intrusion.

6. The PPTA consultants have made an inventory of the existing conditions with regard to weather and flood forecasting in VGTB basin. Fortunately it can be concluded that there already is an existing FFWS operational in Quang Nam province. During a visit to the Department of Agriculture and Rural Development, i.e. the Water Resources and Flood Control Department, and the local office of the Hydro-Meteorological Service of Vietnam a brief demonstration of the system was given. The system contains flood forecasting as well as a hydro-dynamic model for water level forecasting. However, there is an urgent need for expanding and upgrading the system.

7. The local agencies have formulated the needs with regard to such upgrading project as follows:

- a. Extension of the system, more coverage in the mountain areas;
- b. Improvement of technology, hardware and software; and
- c. Capacity building and training.

8. Regarding a) it should be mentioned that presently only 11 hydro-meteo stations exist in the area. Since specifically the upper mountainous part of the basin is quite diverse regarding geography, altitude, exposure, etc., this seems not sufficient to guarantee accurate predictions.

9. It should however be emphasized that as much as possible use still have to be made of the existing system, both regarding hardware (instrumentation) and software. Nevertheless, improved technology may necessitate replacement of some elements of the system.

10. Since various studies have recently been, or presently are being executed in the VGTB basin regarding climate change adaptation planning, disaster risk management, river bank erosion, land use & Climate Change, by UN-Habitat, the World Bank, the so-called LUCCi project, and other sources, it is also recommended to connect with these projects and as much as possible benefit from the results already achieved.

11. It finally should also be emphasized that implementation of the project, i.e. installation of the system, including new instrumentation and/or software explicitly has to be included in the project. The major and most important message of these ToR therefore is:

12. The objective of this project proposal/ToR is clearly not to execute just more studies, but really to do something: implement/upgrade the system, both hardware and software (if needed), and identify/analyze efficient measures, including non-structural measures to improve the flood management conditions in and around Hoi An. Another goal is to identify dry season measures to reduce drought problems and salinity intrusion.

2. BACKGROUND

2.1 General

13. Flooding in Hoi An is an annual event. The last major flooding occurred in 2011 causing widespread damage and flooding of the old historical city, including the old Japanese bridge. Hoi An with assistance from UN Habitat has developed a detailed Climate Change Adaptation Plan and has put into place a series of measures dealing with climate change. With regard to flooding, however, there has been a lack of investment in key flood protection measures

including, notably, the old city embankment which has been already approved and included as one of 61 measures in the nationwide climate change target program

2.2 Basin characteristics

2.2.1 River system

14. The city of Hoi An is located in a very water-rich area, and is fully surrounded by rivers, lakes as well as the sea. It is located at the northern coast of Quang Nam Province, about 30 km south of Da Nang city.

Figure 1: Major river network around Hoi An city



The main water bodies in the area are the East Sea, the Vu Gia-Thu Bon river system, and CoCo river.

The Vu Gia-Thu Bon river system is one of the five major river systems of Vietnam, and is mainly located in Quang Nam province and Da Nang city. More than half of the province, as well as the basin, is covered by the Annam highlands, a mountain range with various peaks above 2000 m above MSL.

The basin includes two main rivers, being Vu Gia and Thu Bon. The Thu Bon river originates from Ngoc Linh mountain at the border of Quang Nam, Quang Ngai, and Kon Tum provinces at an altitude of over 2,500 m above MSL. It flows from South to North till Phuoc Hoi, changing direction and flowing South West – North East to Giao Thuy, meeting Quang Hue river (a tributary of Vu Gia river), changing flow direction again to West- East, and then flows to the East Sea at Cua Dai near Hoi An. The river has a total length of 205 km, while the distance from its source to the confluence with Quang Hue river is about 126 km.

15. Vu Gia river originates from the western Annam highlands, and has many branches, like Cai river, Bung, A Vuong, Con, etc. It flows mainly from West to East, before it turns North into the direction of DaNang. The main river has a length of 204 km, measured from upstream till the Han estuary (DaNang).

16. Co Co river originates from Thuan Chau, flowing from the north, West of Thien Thai mountain, and joins Cam Le river. The river has a length of 29 km, of which 9 km in DaNang City, and 20 km in Quang Nam province. Finally, the De Vong river originates from Dien Duong-Dien Ban district, flowing from West to East North of Hoi An city. The river length is 8.5 km.

17. The floods in VGTB basin generally are faster than in the northern and southern deltas of Vietnam. The force of the floods coming down the mountain is great as the mountains are high and the slopes are steep. The flood peaks in the mountaineous part of the basin are sharp (flash floods) and floods occur every season again. As typhoons hit the coast of Central

Vietnam regularly, and make landfall at several locations along the coast, floods happen more or less uniformly in the whole catchment, leading to the amplification of the flood currents, which cause severe floods and landslides affecting human lives and production. However, due to the sheer size of the basin and the various rivers coming together downstream, the flash flood character is reduced and floods in the lower delta generally come slower and last longer.

18. Whenever a large flood occurs, communities in coastal areas in central Vietnam like Hoi An are usually flooded for 3 to 4 days. Agricultural production may be damaged, though long year plants like fruit trees and even rice will not be harmed severely due to the relative short flooding. However, with the increasing urbanization in specifically the coastal urban areas, together with the projected climate change, the potential flood damages are expected to increase rapidly. For that reason the project will have to make an analysis of the flooding characteristics, and make proposals for effective measures, structural and non-structural to mitigate the flood damage.

2.2.2 Catchments

19. The Vu Gia-Thu Bon river system borders the province of Hue (Thua Thien-Hue) in the north, Quang Ngai in the south, Kontum and Lao PDR in the west, and faces the sea on the east side. The natural area of the river basin is 10,350 km², almost covering the total area of Quang Nam and DaNang provinces of 11,988 km².

20. The central terrain is covered with mountains that run close to the sea. Due to the high altitude and the short distance to the sea, the terrain is relatively steep. Rivers in the area are short and steep, and have almost no mid-stream.

21. The catchment area is 10,350 km² of which 5800 km² is situated in Vu Gia basin (at Ai Nghia site) and 3510 km² in Thu Bon basin (at Giao Thuy site), while the remaining area of 1140 km² is located in the Thu Bon river delta.

22. Activities in the basin that may affect the flood conditions are the construction of reservoirs, deforestation, residential and industrial development, natural resources mining, land clearing, construction of infrastructure, agricultural development, etc., and many of these activities seem to be uncontrolled or managed.

2.2.3 Meteorology

23. In the Vu Gia - Thu Bon river basin, the average annual rainfall ranges from 2,000 to 4,000 mm/year, but its distribution is not equal by space and time. It can reach 2,500-4,000 mm/year at the high mountainous region as Tra My, Tien Phuoc, Kham Duc, Nong Son, Que Son and 2,000 -2,500 mm/year at the lower mountainous and delta region as Giao Thuy, Ai Nghia, Da Nang, and Hoi An. The rainy season lasts from September to December covering 65÷80% of the yearly rainfall total, the remainder being dry season rainfall.

24. Typhoons bring heavy rains with high wind-speeds every year again, mainly between September and December. Maximum daily rainfall reached 667 mm on Nov 3, 1999, and maximum wind-speeds in the coastal zone were 20-40 m/s. The trend-line of storms/ year landing on Quang Nam province is increasing. Large floods happen with an annual average of 3.1 floods/year.

Therefore, it is recommended to provide more auto-record rainfall stations, particularly in the high mountains, where the rainfall is significantly variable.

2.2.4 Coast

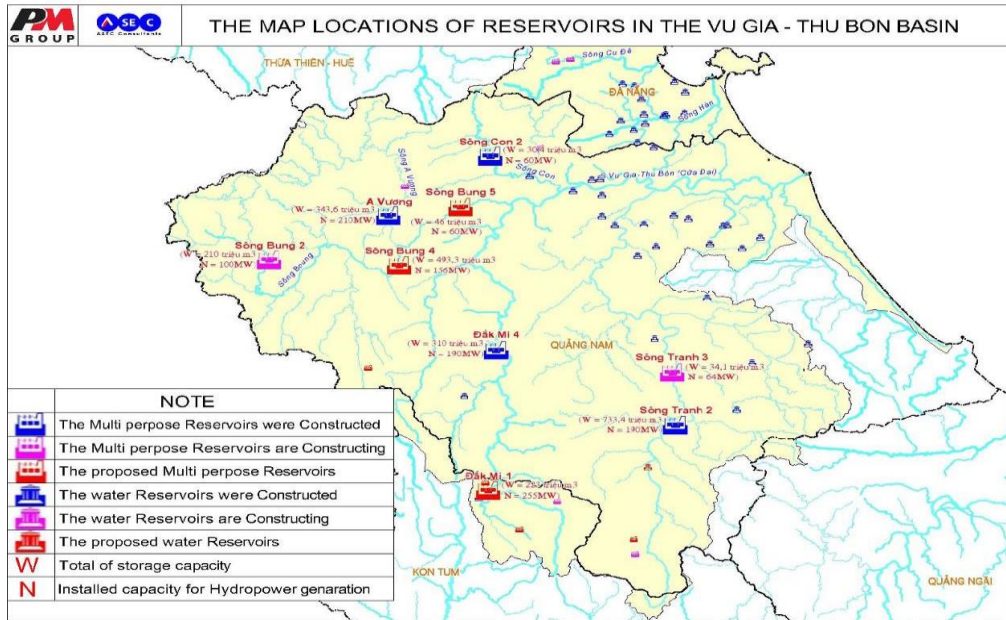
25. Along the coast tides, storm surge and waves determine the risk of flooding. In the estuaries the combination of river flow and water levels at sea should be taken into account. During a hurricane, storm surges can rise up to 1.2 meter above the regular tides, according to the website: (<http://coastal.wru.edu.vn/papers/2008-11/pdf/05E-Storm%20surge-Nguyen%20Tho%20Sao.pdf>). On top of that wind and swell waves may negatively impact the coastal and estuarine levees.

26. Large population centers are located along the tidally affected waters in the river basin and along the coast. It is therefore important to include tidal, storm surge and wave impact into account in a flood risk forecasting and warning system.

2.2.5 Reservoirs

Element	Reservoir:	Unit	A Vuong	Dak Mi 4	Song Tranh 2	Song Bung 4	Total
River			A Vuong	Dakmi	Tranh	Bung	
Full supply Level (FSL)		(m)	380	258	175	222.5	
Live storage amount		MCM	266.5	158.03	521.1	223.99	1,170
Dead storage			77.07	152.29	212.3	276.81	
Flood storage capacity		MCM	35	29	61		125
The installed capacity for Hydropower generation		MW	210	190	190	156	

Figure 2: Map of reservoirs in Vu Gia-Thu Bon river basin



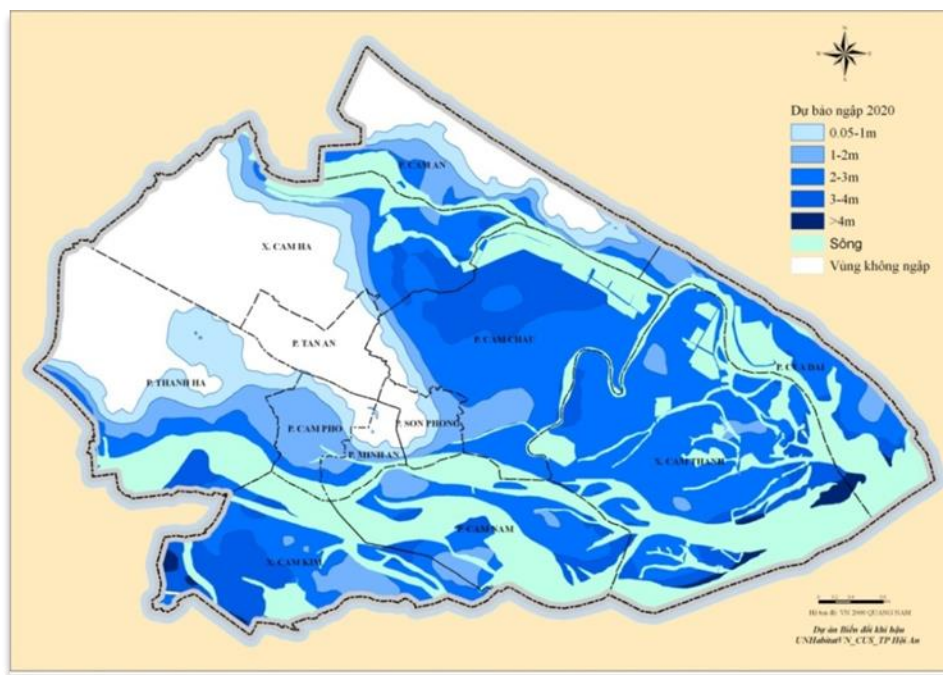
2.3 Flood Hazard

27. In Vu Gia-Thu Bon basin the differences between low and high flows are enormous. The lowest Low Flow at Nong Son on Thu Bon River was measured at 14.6 m³/s (or 4.63 l/s/km²) on August 17, 1977, and at Thanh My station on the Vu Gia river 8.7 m³/s (or 4.7 l/s/km²) was recorded on September 3, 2010.

28. The highest recorded flows have been 10,600 m³/s at Nong Son Station on November 11, 2007, and 7,370 m³/s at Thanh My Station on September 29, 2009).

29. Particularly the flood of November 2007, which happened due to heavy rain over a large area, caused the water levels in Vu Gia - Thu Bon basin to raise fast and inundate most of the downstream area of the basin, with water depths of 2-5m. Some areas in Hoi An city were inundated continuously during a number of days, many ancient historical monuments were damaged and degraded, while many shops, hotels and restaurants as well as households were isolated.

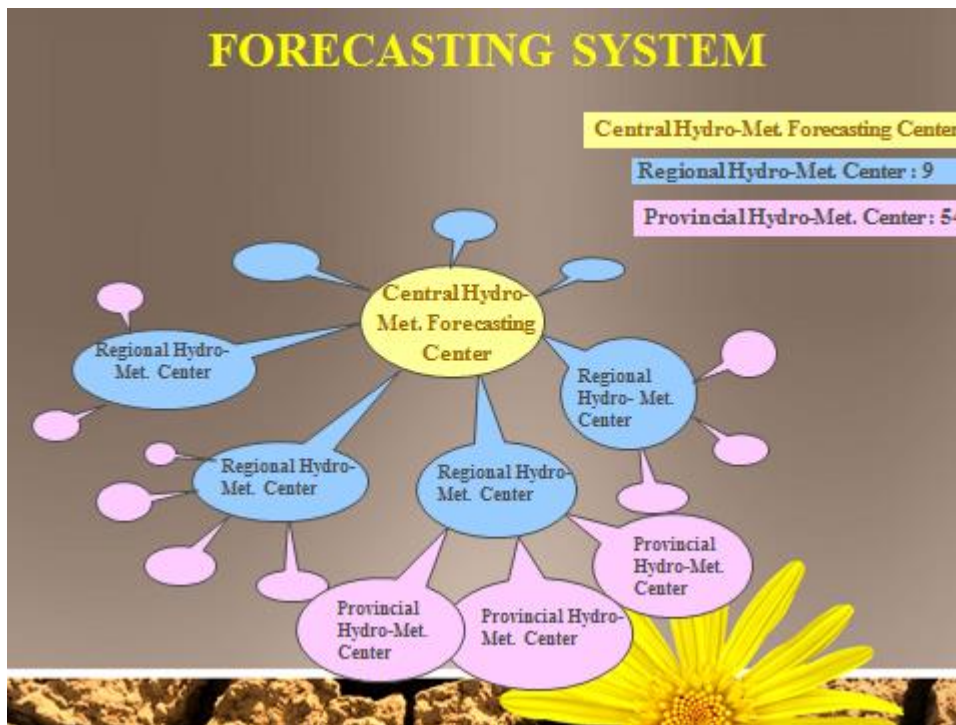
Figure 3: Flood forecasting map for 2020 – UN-Habitat-VAA studies



2.4 Current Flood Information System

30. The National Hydro-Meteorological Services of Vietnam is a State organization under the leadership of MoNRE. It manages and exploits national meteorological and hydrological networks (including basic investigation activities, forecasts, meteorological and hydrological data management), monitors air and water environment in support of natural disaster prevention and preparedness, socio-economic development, national security and defense over the country. They operate 9 regional hydro-meteo centers, and 54 Provincial Hydro-meteorological Forecasting centers, 174 surface meteo-stations and 764 rain-gauges (see Figure 4).

Figure 4: Forecasting Communication System



31. The lay-out of the automatic hydrometric and meteorological network, including the Radar and satellite systems, is presented in Figure 5.

32. Flood forecasting messages and warnings are sent to the major stakeholders, like basin organizations, Central Committees for Storm and Flood Control, local government, media, provincial centers, fishing boats, etc., using broadcasting, radio, SSB, phone, WAN, Met-TV, etc.

33. Figure 6 presents an overview of the hydro-meteo stations in specifically Vu Gia-Thu Bon basin. It will be clear that, in principle a good data collection system for flood forecasting exists in Vietnam, but the amount of stations in VGTB basin seems to be a bit too low for a good representation of the rainfall and related flood forecasts. In particular, the large variation within the basin regarding elevations, slopes, exposure, vegetation cover etc., and the low density of stations lowers the accuracy of the present forecasts.

Figure 5: Overview of Hydro-Meteorological Data Collection System in Vietnam

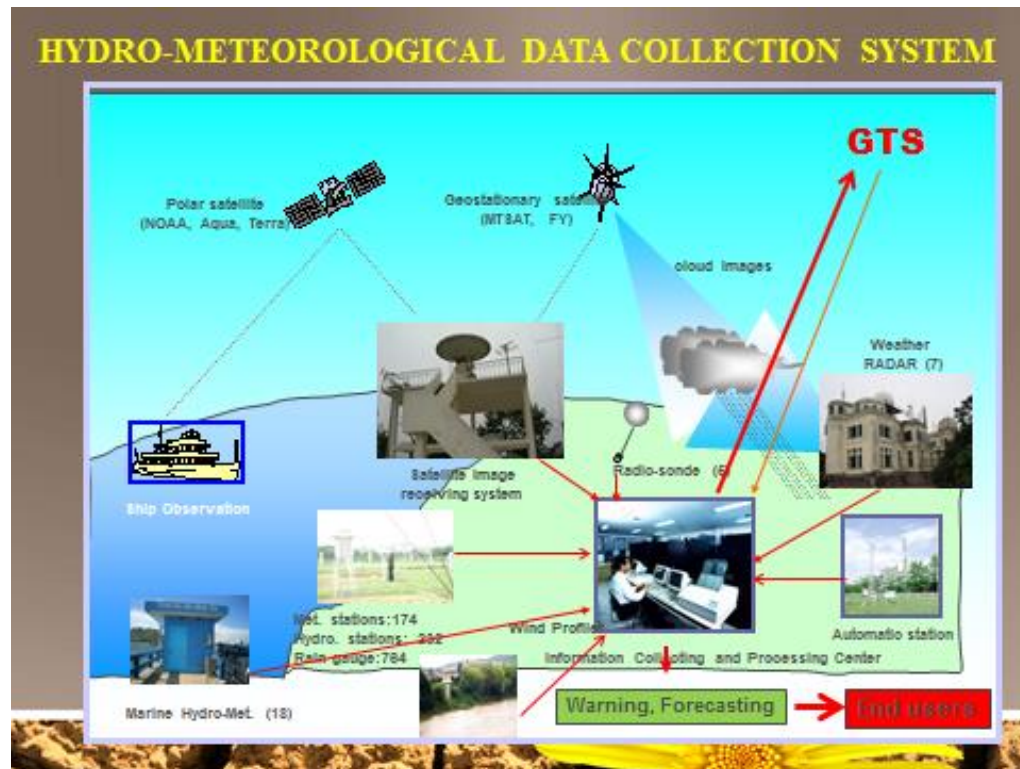
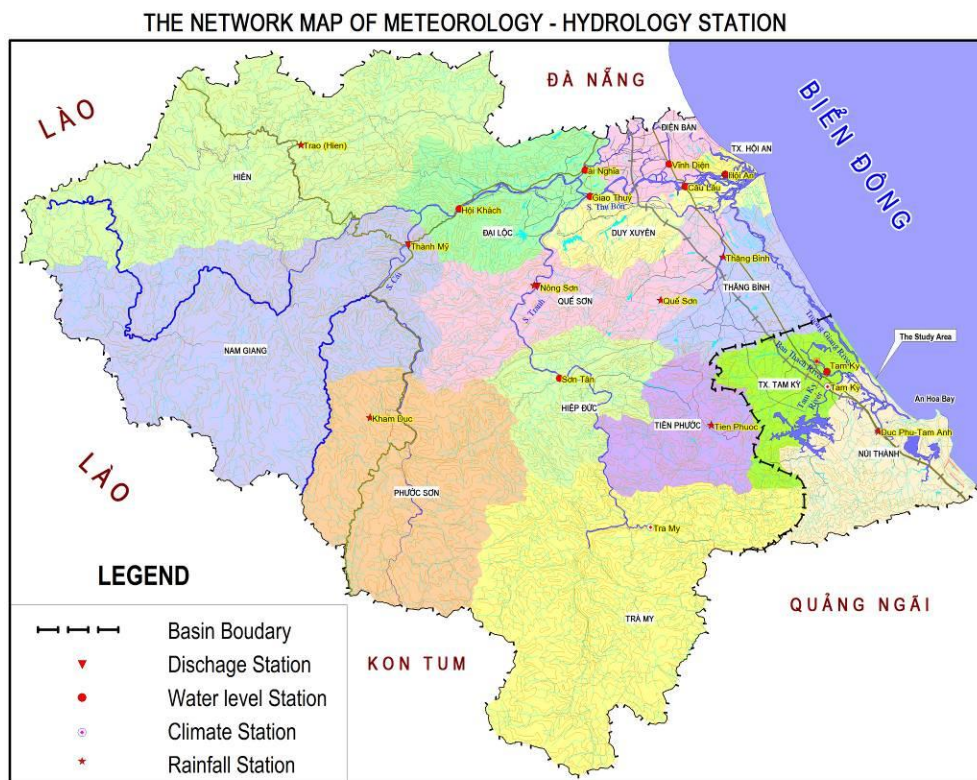


Figure 6 Hydro - Meteo network in VGTB basin



2.5 Flood management

34. Local policies for flood prevention and response are relatively good. Flooding is the most serious disaster in the region, but the adaptation capabilities and resilience of the community and government are quite high. Nevertheless, the potential impacts on the city and surroundings are quite significant.

Figure 7: Flooding around Hoi An (18 September 2013)



Almost every year Hoi An is plagued by floods. However, generally these annual or once per 2 year floods recede quite quickly, say within 1 to 2 days, and floods mainly occur on the low-laying roads and rice fields. Nevertheless, Hoi An old town, located right along the banks of Thu Bon river (i.e. the Hoi An river branch) is also relatively low and vulnerable, and is one of the first urban areas to be flooded, with substantial impacts for local business, life and tourism.

Figure 8 Flooding in Hoi An city (Nov 2007)

For the higher floods, with lower frequencies, once per 5 years or more, hindrance and damages will be more serious. Flood durations generally are 4 to 5 days, but in extreme cases flood durations have been recorded of up to 9 days. This leads to blocking of roads, obstruction of traffic and trade, damage to buildings, crops and products, and evacuation of people, inhabitants as well as tourists.



Generally, for the lower floods the damages in Hoi An city itself are in the order of several millions of US\$. In 2009, however, total flood damages for Hoi An city already amounted up to 15 Million US\$. It is clear that measures are needed to reduce the social and economic problems and losses caused by flooding in Hoi An city and surroundings. In this respect a balanced package of measures will be necessary, both structural, non-structural and managerial measures. In order to compose such package of measures informed decision making is needed, making use of GIS, a Decision Support System, Rainfall - Runoff models, a hydrodynamic model, and related sub-models. Such system will enable analysis and selection of most promising measures, provided that sufficient field data are available. This document describes the activities needed to develop such system, consisting of dedicated software and hardware.

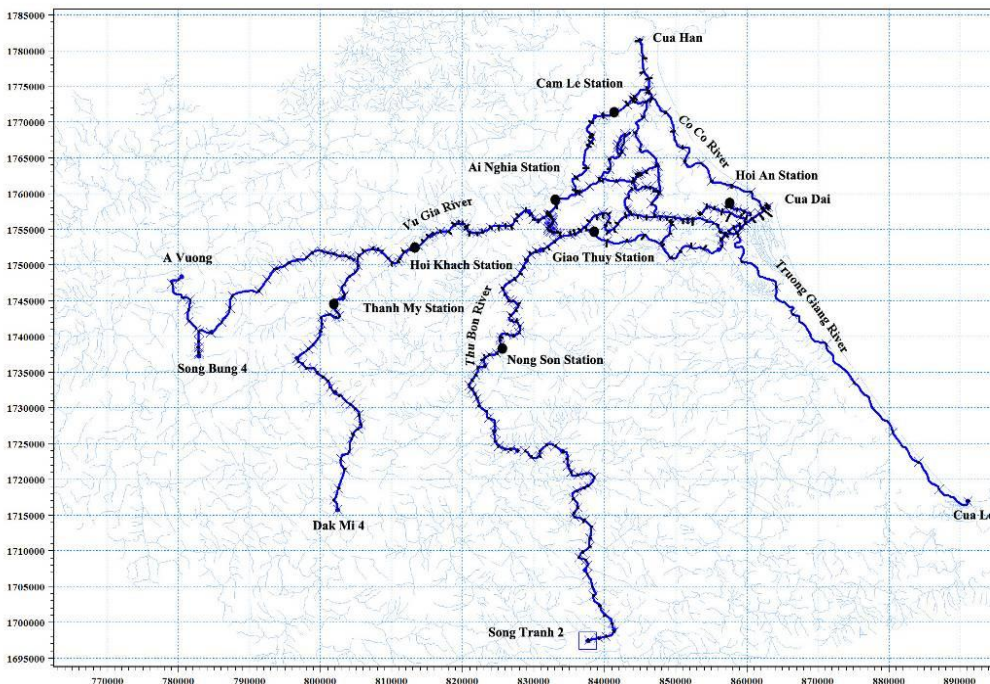
2.6 Available hydrologic and hydrodynamic models

35. The Vu Gia-Thu Bon basin has been studied extensively in the last few years. It is the fourth largest river basin in Vietnam and the biggest in the Central region, and suffers not only from flooding, but also for instance from water shortages, salinity intrusion, and river bank erosion. Studies and projects have been done by the World Bank, the Vietnam Academy of Water Resources (VAWR), the Institute of Water Resources Planning, as well as some other institutes in Hanoi and the Central Region. One recent project is the so-called LUCCi, Land Use and Climate Change Interactions in Central Vietnam, mainly covering the Vu Gia-Thu Bon basin, and doing a lot of monitoring work regarding meteo-conditions, rainfall, water levels, discharges, salinity content etc.

36. In this respect a variety of models and databases have been set up and developed, i.e. a Rainfall-Runoff model (using NAM) as well as a hydro-dynamic model. Moreover, a flood forecasting system is also existing already, operated by the Quang Nam Hydro-Meteorological Services. It has been mentioned, however, that specifically the flood forecasting system needs updating and upgrading. This mainly relates to a) extension of the system (more stations), b) improved technology (software and hardware), and c) capacity building, training and technology transfer.

37. It should be mentioned, however, that as much as possible use will have to be made of existing components, both for the FFS and the models, DSS, Rainfall-Runoff and hydro-dynamic model, to prevent duplication of systems and a waste of resources.

Figure 9: River network of VGTB basin



38. The results of the simulation of the flood of November 2007 (XI/2007) at Nong Son station are presented in Figure 10. It is obvious that the calculated and observed floods are quite similar (with a correlation coefficient of 0.965), proving that the calibration of the model is quite satisfactory.

Figure 10: Computational results and observed floods at Nong Son station, November 1998 (NAM)

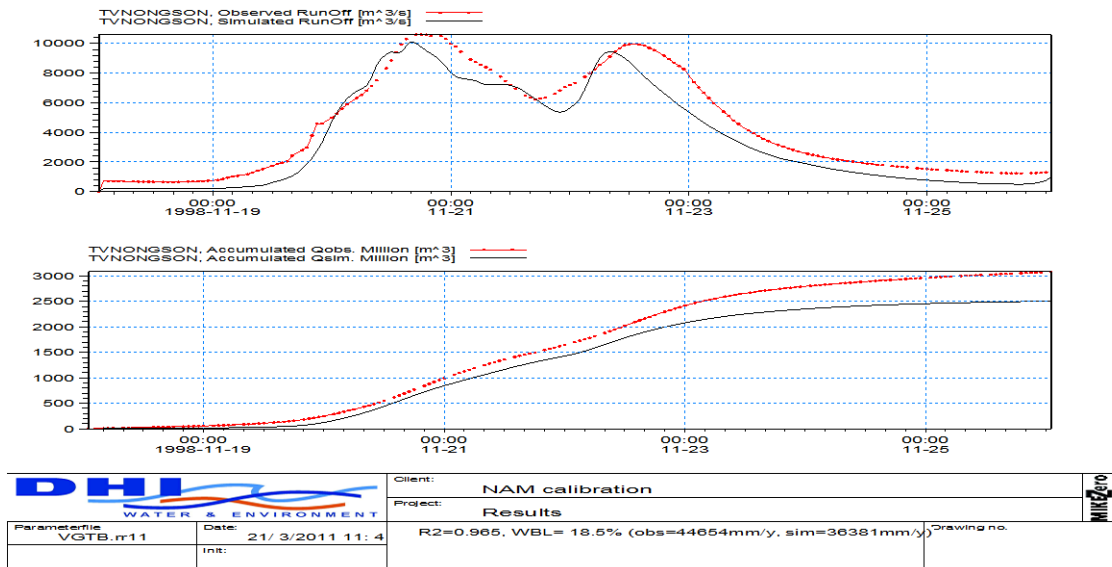
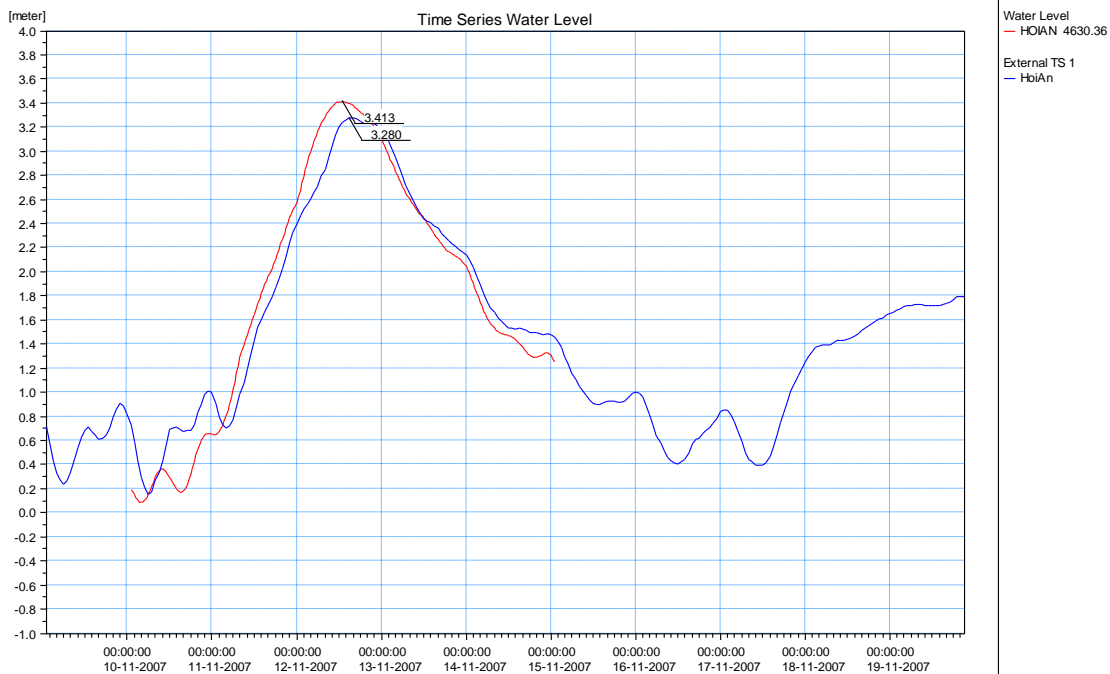


Figure 11: Flood levels in November 2007 at Hoi An



39. In Figure 11 the flood levels in Hoi An station are presented for the same November 2007 flood. Again, the flood wave simulated is quite similar to the monitoring data, subscribing the quality of the present modeling system.

2.7 Goal of consultancy

40. The central goal of the consultancy is reducing the loss of life and property in the Vu Gia Thu Bon River Basin due to storm surge, river floods, flash floods, and landslides. This needs to be realized by a combination of structural and non-structural measures. Secondary goal is the development of instruments (1D hydrodynamic model, Decision Support System, etc) for strategic management of floods, selection of flood mitigation measures etc. The same instruments will enable planning and management of dry season improvement measures, for both drought management and salinity control, for instance via operational scheduling of the reservoirs in the upper and middle basin.

41. The project primarily aims at improving the forecasting and warning services for these natural hazards, to strengthen the crisis organisation in the region, and improve as well as expand the capability within the society to effectively respond to warnings. Furthermore a Decision Support System will be included to enable in-depth analysis of the efficiency of other non-structural as well as structural measures.

3. SCOPE OF CONSULTANCY SERVICES

42. Currently, flood crisis managers in the river basin have to prepare for and react to a flood threat based on common knowledge and experience, and using available data. Given the existing quality and reliability of the monitoring and forecast information, they have to deal with large uncertainties. This leads to short warning times, a lower probability of detection and higher false alarm rates than necessary, given the physical conditions in the river basin, the coastal waters and the prevailing meteorological conditions. Improving the forecasting and warning services but also the response capability of the government and society will reduce the impact of meteorologically induced natural hazards in the area. The establishment of such concrete improvement is the key objective of this project.

43. The improvement of the current meteorological and hydrological forecasting system should increase the lead time and accuracy of the river flood, flash flood and tidal and storm surge forecasts. Also land slide risks should be forecasted more effectively. The upgrade of the FFWS should build on the current operational flood management and flood crisis management procedures, and extend its possibilities. Existing data feeds and forecasting models should be connected to the system, but the FFWS should also allow for extension with other models and technology. An open system approach should be provided not to restrict further development in the future.

44. The proposed FFWS will consist of a system with a central database linked to hydrological and hydrodynamic models and relevant data sources. The FFWS will forecast water levels based on current hydrological situation and weather forecasts. The FFWS will support the operator in decision making about the most effective flood management strategy under prevailing and foreseen conditions. This will have to include optimization of reservoir operation in real-time, taking into account the different interests (energy production, irrigation, flood prevention). The application software shall be customized with user-friendly interfaces: map, graph and schematic interfaces. The client should be able to independently extend the system with new data sources, models, displays etc. The following major tasks were identified to be accomplished by the consultants:

1. Review current monitoring, forecasting, warning and response systems and organization
2. Enhancement of hydro-meteorological monitoring networks
3. Improvement of meteorological and hydrological forecasting systems
4. Improvement of the flood warning and crisis communication system, and strengthening of the flood management and response capability within government and society
5. Project implementation, Technology transfer and capacity building
6. Support & maintenance

45. Each of the tasks is described below in more detail.

3.1 Task 1: Review on organizational and technical context

46. The various subtasks within this task are described in more below.

3.1.1 Review current monitoring, forecasting, warning and (flood) crisis management systems and organizational structures

The flood forecasting and warning system (FFWS) will be implemented in an existing organization, working according to longer standing procedures and within an existing ICT environment. For a successful implementation it is necessary to make sure the FFWS fits well in this environment. Therefore a thorough assessment needs to be made to ensure an effective embedding of the planned system and procedural improvements towards project completion.

The review will include amongst other aspects an assessment of the:

- meteorological, hydrological and coastal monitoring networks
- relevant meteorological forecasting services;
- flood and storm surge forecasting services
- warning and crisis communication procedures
- operational flood management and flood emergency response strategies
- institutional and organizational setting

The various fields of interest will be assessed in terms of current and foreseen future developments. This will deal where relevant with available instrumentation, ICT infrastructure, software systems, and staff capabilities.

3.1.2 Detailed needs assessment and Gap Analysis

Based on the review of the current situation and a stakeholder analysis, needs assessment will be done for the development of the forecasting, warning and response capability in the river basin. In the basis of the needs assessment the project implementation approach will be detailed and agreed with the Client.

A gap analysis will be made to identify and detail the activities that are required to meet the needs of the stakeholders within the framework of the scope of this Project.

3.1.3 International state-of-the-art technology assessment

In order to define how the requirements are fulfilled, the Consultant will provide a clear insight into the state-of-the-art technology available worldwide in the field of flood forecasting and warning, and flood crisis communication and management for conditions similar to Viet Nam.

The proposed solutions and developments should meet international standards in terms of hardware and software systems, and demonstrate a clear and proven track record for similar high availability and mission critical applications. This should ensure the implementation of a sustainable and future proven solution that is flexible and proven to be capable to allow potential future extension to other river basins and possibly the national level.

3.1.4 Outputs

The review of the current situation and the needs assessment (functional specifications) will be reported in the Inception Report. Also an Inception Workshop will be organized with the Client and relevant stakeholders.

3.2 Task 2: Enhancement of hydro-meteorological monitoring networks

3.2.1 Monitoring network improvement

The National Hydro-Meteorological Service runs an extensive monitoring network in Viet Nam. This also covers the project area. To support more effective real-time flood forecasting, the monitoring network needs to be extended and upgraded. This will include installation of upgrades to existing monitoring stations and construction of new stations. The stations will need to record automatically and have telemetry data transmission.

The following monitoring networks will need to be improved:

- rainfall monitoring network
- river water level monitoring network (including discharge measurement equipment)
- tidal gauge network
- reservoir, pump and other major structure status monitoring

The field data collection, primary processing of the data and the data transmission to the FFWS needs to be automatized. The field data collection system will be independent from the FFWS but with direct communication links to ensure seamless use of this information in the FFWS.

The field equipment selected should be easy to maintain and acceptable to the NHMS, that is responsible for field data collection.

3.2.2 Output

An upgraded and improved field monitoring networks, with related data acquisition and handling system.

3.3 Task 3: Development of Flood Forecasting and Warning System

47. The various subtasks within this task are described in more below.

3.3.1 Improvement of river and coastal forecasting models

There are a hydrodynamic MIKE model and a hydrologic NAM model available for the river systems. To maintain previous investments, these models should be run within the FFWS. Where needed these models need to be improved to increase the simulation accuracy. Nevertheless, other modeling tools may be used to simulate river flow and flash floods, side by side with the existing models. The set of forecast models to be included in the FFWS need to be able to simulate inundations caused by overtopping or levee breaches.

Also a coastal model will be developed and calibrated to simulate the impact of tides, storm surge and waves on the coast and in the estuaries. This coastal model will provide the downstream boundary conditions for the river models. Also the coastal model needs to be able to simulate the hydrodynamics of potential inundations.

A land slide risk model needs to be provided to provide information on prevailing and foreseen land slide risk in the river catchments.

The flood models should offer the possibility to calculate flood mitigation strategies including like reservoir management, and operation of flood storage areas and diversions. The FFWS should offer an optimization tool to advice the forecasters and crisis manager about the most effective flood mitigation measures given the foreseen flood situation and/or condition in the catchment. The models need to be able to run with the optimization tool.

In summary, the following activities need to be undertaken as part of this subtask:

- Improve the existing river and catchment models and/or develop new models where relevant with at least equal performance. The models should be developed into forecasting models and include inundation simulation
- Implement the flood mitigation measures in the catchment, river and potentially coastal models,
- Develop a land slide risk forecasting model
- Develop and calibrate a 2D coastal model that simulates tides, storm surge, waves and coastal inundation.

3.3.2 Improvement of meteorological nowcasts and forecasts

In addition to the field monitoring network of meteorological and rainfall stations, weather radar stations are located all over Viet Nam and also cover the project area. Use of especially the rainfall information that can be provided by weather radars, generally proves very useful for flood forecasting, and in particular for flash and urban floods. The suitability of the rainfall radar information needs to be assessed and where required improved through calibration. Flood forecasting, often a combination of automatic ground observations of rainfall and rainfall radar data, is used providing both accuracy at individual locations and spatial information. Please note that not all installed weather radars can provide adequate rainfall information. No new radar stations will be installed in the framework of this project.

Weather forecasts provide key input to modern flood and drought forecasting systems worldwide. Forecast lead times of river floods, flash flood and urban flood forecasts can be extended significantly by including the use of especially quantitative precipitation forecasts (QPF) into the hydrological forecasting process. Raising the quality of the QPF will directly improve the quality of the flood forecasts. QPF becomes inherently more uncertain increasing lead time but within a state-of-the-art hydrological forecasting, a system value adding signal can mostly be produced with various data processing techniques including real-time uncertainty analysis, data assimilation, error correction and merging with observation data (monitoring station and rainfall radar).

For coastal surge and wave forecasting adequate wind and air pressure forecasts will be required. These need to be ingested into the flood forecasting system and will drive the tidal models.

This activity will not include the development of a new meteorological forecasting system, but will focus on using, output correction and potentially downscaling of QPF and wind and air pressure forecasts available nationally and internationally with the aim to increase the lead time of the flood and drought forecasts generated. The best approach will probably combine several forecasting feeds for various lead times into a seamless forecasting for time now to several days into the future. The best may require acquisition (potentially free of charge) of internationally available forecast products.

3.3.3 Implementation of FFWS

The Flood Forecasting and Warning System (FFWS) will help mitigate the flood-related hazards by disseminating warning to the users, target communities, a range of government and non-government organizations, media groups and other interested parties. Information provided by the FFWS will be utilized by these stakeholders to take necessary measures/actions to mitigate the hazard through decision support system, crisis communication systems, crisis management procedures, and evacuation planning developed under this assignment. It will therefore form a very important and relatively inexpensive non-structural measure to reduce the impact of floods. The project will develop a FFWS that will timely, sufficiently accurate and reliably forecast river floods, flash floods, storm surge and wave impact, and their subsequent impact. It will also offer a land slide risk forecast capability. This system will at a later stage continue to improve when new data sources come available, models are improved and protocols change.

An important aspect of the system is the uncertainty analysis. There are several sources of uncertainty, such as hurricane trajectory, rainfall volume, storm surge etc. The FFWS evaluates the uncertainty based on specific basic rules and presents this information to the user.

The FFWS supports the forecasters in evaluating in real-time and supported by optimization tools how to effectively operate flood mitigation measures like flood diversions, flood storage areas and reservoirs. The FFWS should facilitate running of what-if scenarios as well as fully automated optimizations.

The software with which the FFWS will be developed should satisfy the following criteria:

- Modular and open to connecting new data feeds, models, displays. It should be easily configurable, so the client can extend the system further with new data, models, displays etc.;
- Given that it is a mission critical system, it should be proven technology and been applied previously for similar systems internationally. It should have a demonstrated capability of applications at a national scale to allow for future up-scaling of the system over Viet Nam;
- Models can be connected in a transparent and easy manner;
- The software offers functionality for automatic data validation and completion, interpolation, graphing and mapping, error correction, data assimilation, what-if scenarios and modifications, optimization;
- The system has functionality for data assimilation to improve the forecasts;

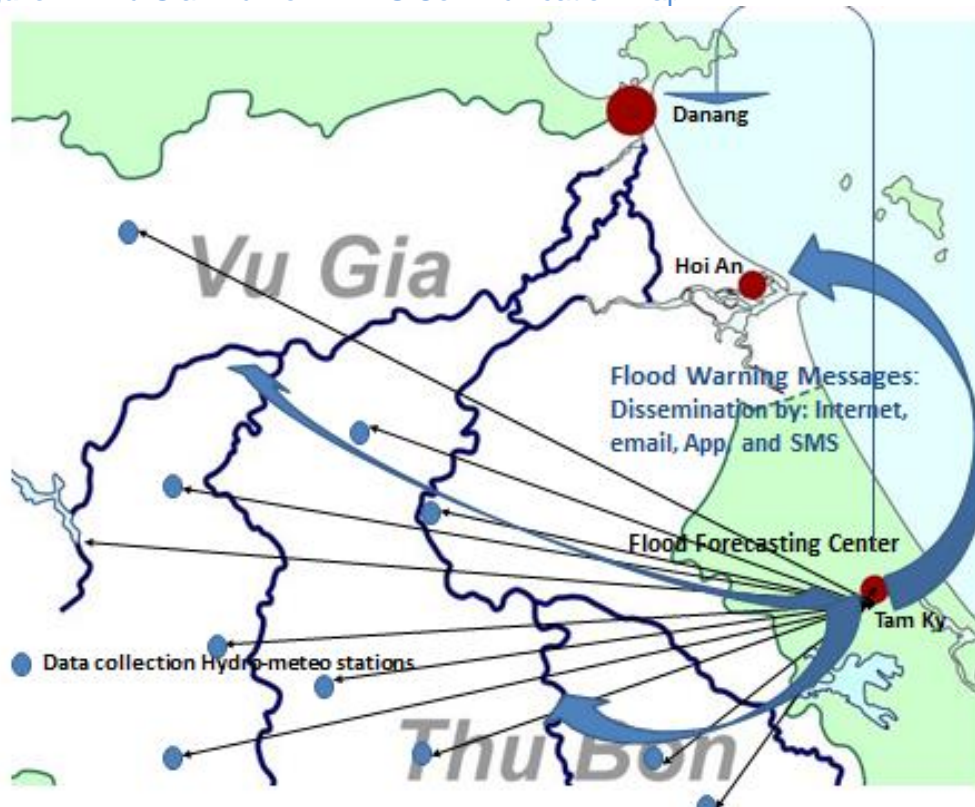
- The user interface has several ways for displaying data: GIS maps, graphs, tables, animations, schematics;
- Has a user management system including setting access permissions to actions and data;
- The system provides functionality to automatically export and disseminate data and information according to widely-used standards. The underlying databases provide access via web interfaces;
- The system should offer hosting on Linux and Windows, and facilitate parallel processing to increase system performance;
- The software has training mode functionality for training of the flood forecasters.

The software capabilities should be demonstrated prior to award. To reduce implementation risks, only a minor part of the system (< 5%) will be newly developed for this project.

In summary, the following activities need to be undertaken as part of this subtask:

- Provide and install hardware, and cooperate with the Client on implementation of hardware and software in the ICT network of the client;
- Connect all required and other relevant data sources including automatic local hydrometric and meteorological SCADA systems, reservoir SCADA systems, rainfall radar, numerical weather forecasts, remote sensing data feeds;
- Connect the models used for flood forecasting including catchment models, river models, flash flood models, tidal and storm surge model, wave models, land slide risk model, and reservoir (flood mitigation measure) optimization module;
- Set-up the routines to import, validate and process the data, to calculate forecast flows and water levels, to apply error correction and data assimilation, and setup the data displays;
- Set-up flood warning dissemination processes;
- Set-up a historical database;
- Operationalization of FFWS including formal acceptance testing and handover.

Figure 12: Vu Gia Thu Bon FFWS Communication map



3.3.4 Decision support for effective use of flood mitigation measures

The reservoirs in the basin are partly designed for flood control, but management is mainly focused at hydropower. Reservoir spills have in the past even led to flooding. Therefore reservoir operation is a crucial element in flood mitigation and should be part of the FFWS. The reservoir operation optimization module will give advice to the reservoir operators on the best operation.

In addition to the management of floods and analysis of flood mitigation measures, the hydrodynamic model and the DSS will have to be utilized for dry season problems as well. For instance the reservoir optimization module can and will be used for the scheduling of reservoirs (flood releases) to reduce salinity intrusion. Similarly drought and water shortage problems can be analyzed and mitigated with the assistance of the hydrodynamic model and DSS.

In summary, the following activities need to be undertaken as part of this subtask:

- review reservoir characteristics and operation procedures;
- design a reservoir optimization module with the following cost-functions: hydropower optimization, flood prevention, water supply, drought prevention, and where relevant ecology;
- The reservoir optimization module should be integrated in the FFWS and coupled to the hydrological, hydrodynamic, and coastal model.

3.3.5 Outputs

The following outputs are generated by this task:

- An improvement and extended set of forecasting models (including a hydro-dynamic model);
- A flood forecasting and warning system;
- A flood mitigation measure operation optimization module;
- A Decision Support System, and
- User and system documentation.

3.4 Task 4: Improvement of crisis communication and management

48. The forecasting information generated with the FFWS needs to find its way to decision makers, flood crisis managers, the public and the private sector. This requires the development of effective information products, information dissemination channels and communication facilities. These need to be developed in close cooperation with all relevant stakeholders. Concrete measures/actions to be taken by each stakeholder to mitigate the hazard will be identified under each specific level of the crisis. Training programs such as emergency evacuation drills will be developed and implemented to ensure all stakeholders effectively utilize the information generated by the FFWS to protect their lives and properties.

The following activities are foreseen within this task.

3.4.1 Development of flood warning and crisis communication systems

At times of flood (and drought) crises, adequate information needs to be available of the current and future situation in the rivers systems, along the coasts, and in rural and urban areas. Authorities with responsibilities in flood crisis management and the population and companies in the hazards prone areas need to be informed effectively. They also need to understand how to effectively react to the provided flood information. Also a coordination center and communication systems to coordinate flood crisis management will be required to facilitate effective flood crisis management,

This subtask will focus on the strengthening and development of the facilities that will support flood crisis communication and management. The activities are foreseen as part of the subtask:

- Stakeholders consultation to understand roles and responsibilities with respect to flood crisis management;
- Development of information products and channels, including situation reports, web pages, email messages, sms alerts, smart phone alert etc.;
- Setup of flood crisis coordination center;
- Setup of crisis communication systems including procurement of communication equipment.

3.4.2 Flood crisis procedures and their institutional embedding

The effectiveness of flood (and drought) crisis management will be substantially improved in case responsibilities between the various stakeholders involved are clear and described in mutually accepted crisis management procedures and evacuation plans. The project will support the improvement of the crisis management organization.

This subtask will focus on the development of the strengthening and development of responsibilities and procedures that will guide flood crisis communication and management. This will cover all major stakeholders involved including governmental authorities, the private sector and the public. The activities are foreseen as part of the subtask:

- Stakeholder assessment including determination of responsibilities and information needs (see above) with respect to flood mitigation and warning;
- Improvement of flood crisis management procedures, and connecting them to the information needs and provision. The project will support this process but the Government will be responsible for its full implementation.

3.4.3 Output

- Flood information products and channels;
- Flood crisis management center ;
- Crisis communication system;
- Improved flood crisis management procedures;
- User and system documentation.

3.5 Task 5: Institutional support, technology transfer and capacity building

49. A key objective of this consultancy is to ensure that the systems developed in Task 3 and 4 are used in practice and address the critical needs and requirements of the various operators and stakeholders. This will require substantial institutional support, technology transfer and capacity building. Due to the fact that this project aims at an integrated use of the FFWS and the DSS, for floods, droughts, salinity mitigation, water shortages, etc. multiple organizations operating within the water sector will have to be involved. At the start of the project an in-depth stakeholder assessment and institutional analysis will be done to identify all relevant parties and actors.

This task may therefore include:

- Stakeholder assessment and institutional analysis (see above)
- Basin level meetings and/or workshops with the major stakeholders and key actors in the basin; i.e. Quang Nam provincial authorities (DoC, DARD, DoNRE, HMS, etc.), the Vu-Gia river basin organization, DaNang municipality, national authorities (MoNRE, MARD, etc.), Electricity company Vietnam (EVN), and/or local users (irrigation management companies, water supply companies, etc.);
- On the job training: A minimum of 6 key users, already active in flood management and with appropriate hydrology and water resources background, will be nominated early on in the project to work with the consultancy team throughout the development of the modeling system and to receive on-the job training;
- A number of ICT experts from the client will be nominated to guide the implementation of the FFWS in the computational facilities of the user. The ICT experts will get multiple training sessions and will be invited to pro-actively join the implementation and development of the FFWS;
- A series of workshops should be organized to disseminate the information with various technical teams and stakeholder;
- The consultant will organize in-depth user training to make the user familiar with the FFWS and comfortable in using it. Several training sessions will be organized in which an exercise will take place, based on the training functionality in the FFWS;

- International study-tour;
- Finally a workshop will be arranged to share the final products with all the stakeholders.

Towards the end of the project, a flood crisis exercise will be organized to test the output of the project with all stakeholders.

3.6 Task 6: Support and maintenance

50. Two years support and maintenance, through a combination of local presence and remote support. For the software specific maintenance contracts will have to be provided by the supplier that will ensure smooth utilization during the course of the project plus 2 years of independent use by the local authorities.

4. SCHEDULE

51. The following basic implementation schedule should be adopted:

- Inception: 4 months
- Development and delivery: 18 months
- Capacity Building and Training: 8 months
- Support and maintenance (after handover): 24 months

52. The institutional support will cover the whole project duration of 30 months, though the specific training, capacity building and technology transfer will be mainly concentrated in the last part of the project

5. SPECIFIC CONSULTANTS TORS

53. The following international experts will be required to successfully implement the project:

- 1) Flood and drought forecasting / climate change specialist
- 2) Catchment and river modeller
- 3) Coastal modeller
- 4) Forecasting systems development specialist
- 5) Emergency communication & management / community engagement specialist
- 6) Software developer
- 7) IT specialist
- 8) Flood management specialist
- 9) Institutional specialist
- 10) Capacity Building specialist/Training advisor

54. The task descriptions and requirements for the individual specialists have been described in more detail below.

1 Flood and drought forecasting / climate change specialist & teamleader (12 months)

Tasks:

- Overall project management
- Conceptual design of forecasting system

- Monitoring network improvement plan
- Setup flood and drought management decision support in FFWS, including development of real-time reservoir management strategies

Requirements:

- At least 10 year experience in flood and drought forecasting, early warning and management, and climate change adaptation
- At least 15 year experience in project management
- At least MSc
- Fluency in spoken and written English.

2 Catchment and river modeler (8 months)

Tasks:

- Development of rainfall-runoff models
- Development of landslide risk model
- Development of river forecasting model (1D) and inundation modeling
- Provide training

Requirements:

- At least 5 year experience in the rainfall-runoff and hydrodynamic river model development
- Experience in geomorphological risk modelling
- At least MSc
- Fluency in spoken and written English.

3 Coastal modeler (4 months)

Tasks:

- Development of tide/surge and wave forecasting models
- Development of wave overtopping and coastal inundation models
- Provide training

Requirements:

- At least 5 year experience in the 2D tide/surge and wave modeling
- At least MSc
- Fluency in spoken and written English.

4 Forecasting systems development specialist (7.5 months)

Tasks:

- Implementation of flood and drought forecasting and early warning system
- Incorporation of monitoring data feeds and regional/national/global meteorological forecasts into FFWS (including downscaling)
- Integration of catchment and river models, landslide risk and coastal models into FFWS
- Setup forecasting workflows, warning thresholds, user displays and data dissemination in FFWS
- System operationalization, testing and handover
- Provide training

Requirements:

- At least 10 year experience in the actual implementation of flood and drought forecasting and early warning systems
- At least MSc
- Fluency in spoken and written English.

5 *Emergency communication and management / community engagement specialist (7.5 months)*

Tasks:

- Stakeholder consultation regarding emergency management communication needs
- Conceptual design of information products and channels
- Development/improvement of emergency management procedures
- Organize setup/improvement of crisis coordination center
- Provide training

Requirements:

- At least 10 year experience in flood emergency communication and management, and community engagement
- At least MSc
- Fluency in spoken and written English.

6 *Software developer (4 months)*

Tasks:

- Development of flood emergency communication channels including websites, apps and sms distribution

Requirements:

- At least 5 year experience in website and app development
- Experience with HTML5
- At least BSc
- Fluency in spoken and written English.

7 *ICT specialist (3 months)*

Tasks:

- Preparation of hardware procurement plan
- Installation of hardware and systems software
- Installation of application software
- Operationalization, testing and handover
- Provide training

Requirements:

- At least 5 year experience in the installation and maintenance of IT systems hosting real-time systems (hardware, operating systems, IT system monitoring)
- At least 5 experience in installation and maintenance of databases, webservers, application servers etc.
- At least BSc
- Fluency in spoken and written English.

8) *Flood management specialist (3 months)*

Tasks:

- Analysis of Vu Gia-Thu Bon river basin with regard to land use changes, water utilization, reservoir construction etc. to identify the major causes of increased flooding in Hoi An and surroundings
- Identification of options to mitigate the flooding in/around Hoi An
- Recommendations on structural and non-structural measures
- Evaluation of impacts of proposed flood management measures
- Recommendations on the preferred flood management strategy

Requirements:

- At least 15 year experience in flood management and flood risk/disaster management
- At least 15 year experience in foreign projects related to flood control/management and/or integrated water resources management
- Preferably knowledge of the local conditions in Quang Nam province
- At least MSc
- Fluency in spoken and written English.

9) Institutional specialist (4 months)

Tasks:

- Stakeholder assessment, institutional analysis, and identification of key actors
- Facilitation of basin meetings with relevant stakeholders
- Facilitation of meetings between Quang Nam and Danang provincial authorities to discuss flood management measures and flood diversion options
- Facilitation of meetings with national authorities like MoNRE and EVN to discuss reservoir release options and reservoir scheduling (dry season)
- Assistance to the Vu Gia-Thu Bon river basin organization to set up and strengthen the basin management

Requirements:

- At least 20 year experience in overall water resources management, river basin development/planning and/or flood risk/disaster management
- At least 10 year experience in the water sector and water governance in Vietnam
- Knowledge/experience in the institutional framework related to flood forecasting, flood management, and related issues
- Preferably knowledge of the local conditions in Quang Nam province
- At least MSc
- Fluency in spoken and written English.

10) Capacity Building Specialist/Training advisor (2 months)

Tasks:

- Identification of capacity building needs w.r.t. flood forecasting and warning, as well as related issues like flood management, river modelling, etc.
- Specification of comprehensive and strategic training program, as well as specific trainers for the relevant training components;
- Assistance to and facilitation of training, workshops, and overall capacity building issues

Requirements:

- At least 15 year experience in capacity building in the water resources sector and/or river basin development/planning
- Preferably knowledge about the educational system in Vietnam and experience in capacity building in the water sector in VN
- At least MSc
- Fluency in spoken and written English.

TERMS OF REFERENCE

EXTERNAL MONITORING ORGANIZATION

A. OBJECTIVES OF THE ASSIGNMENT

1. The objective of is to assess relevance, efficiency, effectiveness and impact of the RPs implementation processes, and to suggest any corrective measures, if necessary. The external monitoring organization (EMO) will monitor and verify (i) compliance of RPs implementation with the approved RPs; (ii) achievement of resettlement goals, including livelihood restoration; and(iii)compliance with the EMP and progress toward the expected outcomes. If EMO identifies any non-compliance issues with the approved RPs and EMPs, relevant recommendations should be made to lead the development of a corrective action plan by the PMU.

B. SCOPE OF SERVICES

2. The scope of services is to conduct (i) a baseline survey to establish a baseline data of APs before LAR; and (ii) periodical monitoring missions to verify that resettlement plans and environment management plans have been implemented in an effective and timely manner and in compliance with approved plans, and guidelines and regulations related to LAR and environment issued by the government and ADB. External specialists shall prepare and submit semi-annual monitoring reports including recommendations for courses of actions and corrective measures to the EA and ADB. The EMO could mobilize surveyors for conducting baseline survey and sample surveys.

3. Specific tasks of the team shall include but not limited to the followings:

(a) For baseline survey

- (i) Collecting all related secondary data of AHs, including allocated land area;
- (ii) Conducting a socio-economic survey of AHs to collect current household data of demography and socio-economic information;
- (iii) Establish a database of AHs to be used for monitoring and evaluation.

(b) For resettlement monitoring

- (i) verify the process of the detailed measurement survey and determine whether activities are carried out in a participatory and transparent manner;
- (ii) determine the level of participation of affected people in the updating and implementation of RPs;
- (iii) determine whether payment of compensation and allowances are made in a timely manner to all affected people as approved in the RPs;
- (iv) determine whether public consultations and awareness programs have been conducted as approved in the RPs;
- (v) verify whether the implementation of resettlement activities is well coordinated with the implementation schedule of the project;
- (vi) verify the land acquisition and land transfer procedures;
- (vii) verify the level of satisfaction of affected people with the provisions of compensation and allowances and implementation of the RPs;

- (viii) assess the adequacy and implementation of the Grievance Redress Mechanism (documentation, process, resolution and satisfactory);
- (ix) determine the effectiveness, impact, and sustainability of entitlements and income restoration programs and the need for further improvement and mitigation measures;
- (x) assess the capacity of affected people to restore livelihoods and living standards with special attention to be given to severely affected people and vulnerable groups including female headed households and ethnic minorities;
- (xi) assess whether there are any impacts on the host communities with regards to gender, HIV/AIDS, other infectious diseases, and human trafficking;
- (xii) assess whether any resettlement impacts are incurred during construction activities and compensation for them;
- (xiii) assess if corrective plans are prepared for non-compliance, and follow up the implementation of these plans;
- (xiv) prepare and submit detailed monitoring reports on a semi-annual basis. The reports will describe in detail the findings, including
 - progress of RP implementation, including any deviations from the provisions in the RP;
 - identification of issues and recommended solutions for improvement and resolving issues;
 - identification of specific issues related to gender, ethnic minorities, and other vulnerable groups;
 - reporting on progress of resolving issues and problems identified in previous reports;
 - reporting on good practices.
- (xv) Conduct a post-resettlement evaluation and prepare and submit a detailed resettlement monitoring completion report within 6 months of completion of all resettlement activities.

(c) For environment monitoring

- (i) assess the existing environmental conditions at the project sites/sub-projects, and provide independent periodic assessment of environmental safeguard compliance in project implementation by conducting compliance monitoring and impact monitoring;
- (ii) assess relevant environmental issues such as biodiversity, terrestrial and aquatic habitat alteration, physical and cultural resources, impacts from noise, dust, emission, and hazardous materials, and occupational and community health and safety;
- (iii) assess and use the monitoring assessment system, and IEE/EMP recommendations prepared for the project for safeguard requirements in design, bill of quantity items, and contract agreement clauses, and make recommendations on mitigating measures;
- (iv) assess if corrective plans are prepared for non-compliance, and follow up the implementation of these plans;

- (v) assess safeguard compliance capacity of project staff, contractors, and capacity development trainings provided to these actors;
- (vi) identify possible areas of biodiversity conservation and environmentally sensitive areas, and provide measures to avoid and protect them;
- (vii) assist the IA in conducting public consultations with affected people and other concerned stakeholders, and document the consultation outputs in periodical monitoring reports;
- (viii) verify institutional arrangements for coordination between safeguard and technical team during project implementation, and make recommendations for improvements;
- (ix) prepare and submit detailed environment monitoring reports on a semi-annual basis, in a format and with content compliant with Safeguard Policy Statement (2009), including mitigating measures applicable to the environmental issues identified;
- (x) prepare and submit a detailed environment monitoring completion report within 6 months of completion of the project; and
- (xi) Perform additional tasks related to the environment safeguards of the project as and when required.

C. METHODOLOGY AND PROCEDURE

4. The EMO shall employ the following methods and tools for baseline survey and monitoring:

a) For baseline survey

The EMO will collect data of AHs at commune level and conduct a socioeconomic survey by questionnaire and organize group discussions and in depth interview.

b) For monitoring

Desk review

5. The EMO shall collect and review all the related documentations set by PPMUs and Resettlement Committees (RC), including the internal monitoring reports and compensation plans. The desk review needs to verify whether all entitlements of APs have been included in the compensation plans based on replacement cost.

Sample survey

6. A sample survey with 100% of severely affected households and 20% of marginal affected households will be conducted for each monitoring mission to assess the implementation of compensation and resettlement of the subproject. Gender and vulnerable group should be integrated in the sample. A questionnaire using for survey needs to be prepared by the EMO based on the above monitoring indicators. The post-resettlement evaluation should be conducted with the same sample to assess whether living standard, income and livelihoods of APs have been restored or improved comparing to pre-project.

Group discussion and in-depth interview

7. Besides sample survey, the monitoring team will organize group discussions with targeted groups such as poor and vulnerable, and conduct in-depth interviews with key persons

to get their opinion and assessment on resettlement implementation. Guidelines for group discussion and in-depth interview should be prepared by the EMO.

Observation

8. The consultant will conduct site visits to the project sites and resettlement sites to identify if the construction implemented within the scope of land acquisition and if the resettlement sites constructed with full infrastructure.

9. For environmental safeguard, the IEE, EMP and test results of environmental samples at sub-project sites are used as baseline data.

Impact assessment:

For social safeguard, a post-resettlement evaluation shall be carried out to find out if the objectives of the project resettlement have been attained or not. The post-resettlement evaluation will assess:

- The effectiveness of delivering entitlements (compensations and rehabilitation measures) and their impact on APs livelihood. The assessment will look into potential differential impact or benefit those men and women APs experienced from the resettlement activities.
- APs satisfaction on the valuation of assets and entitlements, timing of payments, grievance redress, fund availability and disbursements.
- The efficiency of the resettlement implementation to draw lessons for future resettlement planning and implementation.

For environmental safeguard, a post-construction or post-completion of sub-projects review shall be conducted to assess the effectiveness and efficiency of environmental protection and recommend improvement solutions.

D. IMPLEMENTATION ARRANGEMENTS

10. The assignment is implemented on an intermittent basis following the progress of LAR implementation and construction of the project. Duration of the assignment implementation is 42 months, starting from the **third quarter of 2015 until the 31 December 2018**.

E. REPORTING REQUIREMENTS

11. The EMO shall prepare semi-annual reports and a post-resettlement and environment evaluation report to submit to the EA for review before submitted by the EA to ADB for review and uploading on the ADB website. The EMO is also expected to prepare and submit to the EA the following deliverables: (i) inception report and work plan, (ii) baseline survey report, (iii) quarterly monitoring reports, (iv) impact assessment reports, and (v) final/evaluation report.

12. The EMO shall submit the deliverables in English and Vietnamese languages in soft and hard copies along with a cover letter. A set of monitoring reporting guidelines are included as Appendix 1.

F. CONSULTANT QUALIFICATIONS AND TEAM COMPOSITION

13. Prior experience in conducting LAR and EMP external monitoring for development projects, including ADB-funded projects and familiarity with ADB Safeguards Policy Statement (2009) and relevant laws, regulations, and guidelines is an advantage.

14. A professional team consisting of competent experts to implement the assignment includes two key experts:

- (i) Social Safeguard Specialist/Team Leader (intermittent, 12 person-months): a bachelor degree in social science, economics, or related fields with preferably 8 years of relevant experience. The Consultant will be mainly responsible for completing the tasks described in Para 3 (b) and for coordinating, and ensuring the involvement of relevant experts in all the tasks, and timely delivery of reports as described under Section E. Reporting Requirements.
- (ii) Environment Safeguard Specialist (intermittent, 2 person-months): a bachelor degree in environmental science, environmental management or related fields with preferably 8 years of relevant experience. The Consultant will be mainly responsible for completing all the tasks described in Para 3 (c) and will provide support to the Team Leader, as required;

A SET OF MONITORING REPORTING GUIDELINES

15. The level of detail and comprehensiveness of a monitoring report is commensurate with the complexity and significance of social and environmental impacts. A safeguard monitoring report may include the following elements:

- a) Background/context of the monitoring report (adequate information on the project, including physical progress of project activities, scope of monitoring report, reporting period, and the monitoring requirements including frequency of submission as agreed upon);
- b) Changes in project scope and adjusted safeguard measures, if applicable;
- c) Qualitative and quantitative monitoring data;
- d) Monitoring parameters/indicators and methods based on the monitoring plan/program previously agreed upon with ADB;
- e) Monitoring results compared against previously established benchmarks and compliance status (e.g., IR compensation rates and timeliness of payments, adequacy and timeliness of IR rehabilitation measures including serviced housing sites, house reconstruction, livelihood support measures, and training; budget for implementing RP, timeliness and adequacy of capacity building, etc.);
- f) Monitoring results compared against the objectives of safeguards or desired outcomes documented (e.g. IR impacts avoided or minimized; livelihood restored or enhanced; etc.);
- g) If noncompliance or any major gaps identified, include a corrective action plan;
- h) Records on disclosure of monitoring information to affected communities;
- i) Identification of key issues, or complaints from affected people, or recommendations for improvement;
- j) Monitoring adjustment measures recommended based on monitoring experience/trends and stakeholders response;
- k) Information about actual institutional arrangement for implementing the monitoring program/plan provided or adjusted, as may be required;
- l) Proposed items of focus for the next report and due date.

**Template for
Standardized Terms of Reference (TOR) for
External Financial Audit Services (Auditor)
of Annual Project Financial Statements (APFS)**

A. Background of the Project:

1. Please refer to Annex 1 (attached to this TOR), the following information:
 - a. The background of project
 - b. Project Description
 - c. The Executing- and the Implementing Agencies (EA/IAs)

B. Accounting and Financial Management

2. If the project has a financial management manual, mention it here, please include as Annex 2, attached to this TOR for the content of the Financial Management Manual.

C. Objective

3. The objective of audit assignment is to ensure that ADB, on an annual basis, is provided with the following reliable, comprehensive, and timely information: (i) Audited Project Financial Statements (APFS); (ii) Specific additional audit opinions; and (iii). Management Letter. ADB requires these documents to be provided in English.

D. Scope of Work

D.1. APFSs: Financial Statement to be audited:

4. The EAs/IAs are responsible for preparation and consolidation of APFSs. The Auditor is to express an opinion on the accompanying statements based on the audit. The accounting standard adopted should be specified in the annual audited financial statements. The content of the financial statements is expected to include, as a minimum (refer to: Annex 4-part B, attached to this TOR for a sample list of requested document.):
 - a. A Summary of all sources of funds, as well as expenditures against a classification system that is responsive to the project's objectives both for the current fiscal year and cumulative to date, showing ADB funds and counterpart fund and funding from other sources separately;
 - b. A Summary of Expenditures shown under the main project components and by main categories of expenditures, both for the current fiscal year and accumulated to date;
 - c. A Balance Sheet showing Accumulated Funds of the Project, bank balances, other assets of the project, and liabilities, if any;
 - d. Supporting schedules to the financial statements which at least include: (i) a reconciliation of the amounts shown as "received by the project from the ADB" with those shown as being disbursed by ADB; and (ii) Statement of Expenditures (SOE) procedure (if applicable) listing individual SOE withdrawal applications by specific reference number and amount.
5. In addition to the audit of the project financial statements, the Auditor is required to audit all SOEs as the basis for the submission of the Withdrawal Applications to ADB. The Auditor should apply such tests and controls as the Auditor considers necessary under the

circumstances. These expenditures should be carefully compared for project eligibility with the relevant loan agreement for guidance when considered necessary. Where ineligible expenditures are identified as having been included in Withdrawal Applications and reimbursed against, these should be separately noted by the Auditor. A note to the Project Financial Statements should be a schedule listing individual SOE withdrawal applications by specific reference number and amount. The total withdrawals under the SOE procedure should be part of the overall reconciliation of ADB disbursements described above.

6. Imprest Account/Sub Account statement showing movement and reconciliation with the bank statements. The Auditor is also required to audit the activities of the Imprest Accounts/Sub Accounts associated with the Project that usually comprise of:

- a. Deposits and replenishments received from ADB;
- b. Payments substantiated by withdrawal applications;
- c. Interest that may be earned from the balances and which belong to the Borrower
- d. The remaining balances at the end of each fiscal year.

7. The Auditor must form an opinion as to the degree of compliance with ADB's procedures and the balance of the EAs at year-end. The audit should examine the eligibility and correctness of financial transactions during the period under review and fund balances at the end of such a period, the operation and use of the IAs in accordance with the financing agreement, and the adequacy of internal controls for this type of disbursement mechanism.

8. The Accounting Policies adopted and Explanatory notes. A Management Assertion that ADB funds have been expended in accordance with the intended purposes. Request for form of Annual Project Financial Statements (extracted from PAI 5.07 revised on Jun.2012) including, but not limited to:

- a. Annual project financial statements should normally be presented in the local currency, with the basis for conversion of any foreign exchange transactions or commitments explicitly stated.
- b. The annual project financial statements should be presented in the English language and should reflect the operations supported by ADB financing, including ADB-administered funds.
- c. The project expenditures should be presented following the expenditure categories contained in the legal agreement and/or the PAM, and revisions thereto.
- d. The annual project financial statements should include comparative figures for the preceding reporting year and cumulative figures from the loan effectiveness date to the end of the current reporting year. For projects that receive funding from other sources, the annual project financial statements should include all sources of funds (both ADB-provided and otherwise).
- e. The accompanying Notes to Financial Statements should provide sufficient explanation and information on the financials in narrative form or appropriate supporting schedules, including description of key financial reporting policies.
- f. For projects where separate and distinct components are being administered by the EA and/or several implementing agencies (IAs) each agency should prepare separate project financial statements reporting on the funds they are administering.

- g. Financial statements should be prepared in accordance with accrual based financial reporting standards.
- h. The agreed financial reporting and auditing arrangements will be set forth in the legal agreement and detailed in the PAM.

D.2. Specific additional audit opinions:

9. The auditors are engaged to provide an independent and objective opinion on whether the financial statements present a true and fair view, in all material respects, in accordance with the applicable financial reporting framework. The auditors should also form an opinion from the audit evidence obtained, and clearly express that opinion through a written report. The auditor's opinion is necessary to establish the credibility of the project financial statements. The objective of the audit of the annual project financial statements (APFS) is to enable the auditor to provide opinion(s) covering:

- a. Use of loan proceeds - to confirm whether the borrower or EA has utilized all proceeds of ADB's loan or grant only for purposes of the project;
- b. Compliance with financial covenants: (Please refer to: Annex 3 attached to this TOR, where applicable) - to confirm or otherwise, that the borrower or EA was in compliance with the financial covenants of the loan or grant agreement.
- c. Compliance with the imprest fund procedure which includes imprest account(s) and sub-account(s) (where applicable) - to confirm or otherwise, whether the imprest account (and sub-accounts) gives a true and fair view of the receipts collected and payments made and supports imprest and sub-account- liquidations and replenishments during the year.
- d. Compliance with the Statement of Expenditure (SOE) procedures (where applicable) - to confirm or otherwise, whether adequate supporting documentation has been maintained to support claims to ADB for reimbursement of expenditures incurred and that the expenditures are eligible for financing under the loan or grant agreement.

D.3. Management Letter

10. ADB requires the EA/IAs to provide a copy to provide a copy of the auditor's Management Letter, together with the APFS/AFS. At the minimum, this should include:

- a. a general overview of the internal control systems of the project and the EA, or an opinion on the management systems;
- b. an identification of material deficiencies or weaknesses in the project or EA/IAs' internal controls over financial reporting or on the overall system of internal control;
- c. the auditor's recommendations for improvements or for rectification of identified weaknesses;
- d. the client's comments on the findings and recommendations; and
- e. follow-up action/s or status to previously identified issues and findings, if any.

11. In cases where a management letter is not received for the entity as a whole, then a management letter covering internal controls and procedures associated with the preparation of the project financial statements is required and should be submitted together with the APFS. When significant weaknesses come to attention of the auditor during the course of audit that are not reflected in the audit opinion, they should be reported in a management letter as follows;

- a. A description of specific internal control weaknesses noted in the financial management and recommendations to resolve/eliminate the internal control weaknesses;
- b. Inappropriate accounting policies and practices and effectiveness of the accounting
- c. records system in providing useful and timely information for proper management of the program/and project;
- d. Issues regarding general compliance with broad covenants on each financing agreement and give comments, if any, on internal and external matters affecting such compliance;
- e. Report significant matters raised in previous reports which have not been dealt with effectively
- f. Any other matters that the auditor considers should be brought to the attention of the borrower.
- g. A time bound actions plan that have been agreed with the management to address each of the individual issue, including date of completion, and person(s) responsible for implementation of the action plan.

E. Locations to be audited:

12. ADB funded projects in Viet Nam often include central level, provincial and even lower levels. The auditors may have to travel to all lower levels to do the audit. If it is the case, the TOR should specify the provinces where Auditors must visit.

F. Phasing of the Audit:

13. The TORs must specify in the following table when the report will be submitted in draft and in final format:

Month of fiscal year (FY) and report submission

Period	FY start	FY End	Report Submission	Remarks
1				
2				

14. Although the auditing firm will be contracted for the mentioned audit phases (maximum three years per contract), it must submit the financial proposal in US\$ in a format indicating the amount for each financial year independently: (i) If performance is not satisfactory in one year then the client will not be bound for subsequent year's audits; and (ii) If the performance is satisfactory, the auditor may participate in bidding process for the next fiscal years, but the total assignment should be up to 6 years for one project.

G. Auditing Requirements:

15. The audit will be carried out in accordance with International Standards of Auditing including:

- a. planning and conducting the audit in accordance with a risk based framework with a detailed audit work program which is sufficiently extensive in its coverage of the project's FS to support the opinion given.
 - b. the auditor will gather evidence and prepare working papers to properly documents the evidence seen in support of the opinion given, sufficient audit evidence will be gathered to substantiate in all material respects the accuracy of the information contained in supporting schedules attached to the FS.
 - c. the auditor will review and evaluate the system of internal controls in effect, including internal audit procedures, to determine the degree of reliance that may be placed upon them and to determine the extent of testing of actual transactions needed to assure the auditor of the accuracy of the accounting records,
 - d. the audit coverage will consider the risk of material misstatement(s) as a result of fraud or error. The audit program should include procedures that are designed to provide reasonable assurance that material misstatements (if any) are detected.
 - e. the auditor must obtain an understanding of the design and operation of internal control over compliance with requirements that could have a direct and material financial effect on the funding agreements. The auditor's work in this area is in addition to the consideration of internal control over financial reporting that is part of the FS audit. Specifically, the auditor must obtain an understanding of the internal control over compliance that is sufficient to plan the audit to support a low assessment level of control risk for donor program. The auditor needs to test the internal control unless the internal control is likely to be ineffective in preventing or detecting noncompliance.
16. The auditor will need also to review the following:
- a. ADB financing (and expand to all external financing where ADB is not the only financier) shall be used in accordance with the conditions of the relevant financing agreement, with due attention to economy and efficiency, and only for the purposes for which the financing was provided, as detailed in the supporting documents
 - b. Counterpart funds shall be provided and used in accordance with the relevant loan agreements, with due attention to economy and efficiency, and only for the purposes for which they were provided;
 - c. Goods, works and services financed shall be procured in accordance with the relevant financing agreements including specific provisions of the ADB Procurement Policies and Procedures and relevant laws of Borrower. However, in case there are conflicts between ADB policies and procedures with Borrower's relevant laws, ADB policies and procedures will prevail. Fixed assets procured by all financiers shall be reviewed;
 - d. The expenditures submitted to ADB shall be eligible for financing and all necessary supporting documents, records, and accounts in support of credit withdrawals have been adequately maintained with clear linkages between the books of account and reports presented to ADB;
 - e. Funds disbursed through SOEs shall be utilized for the purposed defined in the funding agreements. Where ineligible expenditures are identified as having been included in withdrawal applications and reimbursed against, these should be separately noted by the auditor;

- f. Imprest Accounts and sub-accounts, (if used) shall be maintained in accordance with the provisions of the relevant financing agreements and funds disbursed out of the account were used only for the purpose intended in the financing agreement and other supporting documents.

H. Accounting Policies and Changes.

17. The auditor should comment on the project's accounting policies, and confirm the extent to which the agreed project accounting policies have been applied. In particular, the auditor should note the impact on the APFS arising from any material deviations from the agreed accounting standards. The auditor should also comment on any accounting policy changes, either during a financial year, or from one year to another.

I. Compliance with laws, regulations and funding agreements:

18. The auditor should be aware of the unique characteristics of the compliance auditing environment. Governments and not-for-profit organizations differ from commercial enterprises in that they may be subject to diverse compliance requirements including its compliance with financial covenants and financial assurances.

19. Management is responsible for ensuring compliance with relevant laws, regulation and funding agreements. That responsibility encompasses the identification of applicable laws, regulations and funding agreements and the establishment of internal control designed to provide reasonable assurance that the auditee complies with those laws, regulations and funding agreements.

20. In addition to the opinion on the FSs, the auditor should provide an opinion on whether the auditee complied with laws, regulations and provision of contracts and funding agreements that have a direct and material financial effect on the project financial statements. The auditor should prepare a report with separate schedule of findings and questioned costs. The scope of the audit should also refer to compliance with the Procurement procedures as set out in the funding agreements.

J. Responsibility to Consider Fraud in an Audit:

21. The primary responsibility for the prevention and detection of fraud rests with both those charged with governance of the entity and with management. It is important that management, with the oversight of those charged with governance, place a strong emphasis on fraud prevention, which may reduce opportunities for fraud to take place, and fraud deterrence, which could persuade individuals not to commit fraud because of the likelihood of detection and punishment. It is the responsibility of those charged with governance of the entity to ensure, through oversight of management, that the entity establishes and maintains internal control to provide reasonable assurance with regard to reliability of financial reporting, effectiveness and efficiency of operations and compliance with applicable laws, regulations and funding agreements. To do that, management is responsible for establishing a control environment and maintains policies and procedures to assist in achieving the objectives of ensuring the orderly and efficient conduct of the entity's operation.

22. Therefore, in order to ensure that those assertions are addressed in the audit of the entity, it is important that auditors must follow International Standards of Auditing (ISA 240) "The Auditor's Responsibility to consider Fraud in an Audit of Financial Statements.

K. Audit Report

23. The auditor should become familiar with the following documents: Guideline for the financial governance and management of investment projects financed by the Asian Development Bank; and the Loan Disbursement Handbook. The Auditor's reports on the projects financial statements should be prepared in 08 copies (04 in English and 04 in Vietnamese) and mentions the following matters:

- a. A title identifying the person or persons to whom the report is addressed;
- b. An introductory paragraph identifying the financial statements audited;
- c. Separate sections, appropriately headed dealing with respective responsibilities of directors (or equivalent persons),
- d. The basis of the Auditor's opinion,
- e. The Auditor's opinion on the financial statements, SOEs and IAs/SAs;
- f. The manuscript or printed signature of the Auditor; and
- g. The date of the Auditor's report.

24. The audit report is required to include separate audit opinions on the Financial Statements (as described in part D. the Scope). This would include at least the following:

- a. the audit report will state the purpose of the report and its intended use,
- b. the audit report will state which/whose generally accepted accounting standards have been applied and indicate the effect of any deviations from those standards,
- c. the audit report will state that the audit was conducted in accordance with ISAs,
- d. the audit opinion will cover the current period,
- e. the audit opinion will state whether or not the financial statements presents fairly in accordance with the adopted accounting policies for the project and that the funds were utilized for the purposes defined by the funding agreements,
- f. the audit opinion will cover in all material respects the supporting schedules,
- g. the auditor should provide an opinion on whether the Project complied with applicable laws, regulations and the Procurement procedures and other provisions of the funding agreements that have a direct and material financial effect on the Project's financial report,
- h. the auditor should provide an opinion on the effectiveness of internal control over compliance with requirements that could have a direct and material financial effect on the financial statements as well as internal control over financial reporting.

L. Available Information and Services to be Provided to the Auditor:

25. Please refer to: Annex 4 attached to this TOR for a sample list of requested documents by Auditor. These include:

- a. The auditor should have access to all legal documents, correspondences, and any other information associated with the project and deemed necessary by the auditor. The auditor will also obtain confirmation of amounts disbursed and outstanding at ADB. Available information should include copies of the relevant: project appraisal

document; financing agreement; financial management assessment reports; supervision mission reports and implementation status reports.

- b. The Auditor shall have the right of access to banks and depositories, consultants, contractors and other persons or firms engaged by the project. In case access has been restricted, the auditor must note this in the management letter.
- c. ADB can request access to the auditors unedited audit working papers. If necessary, the auditing company can be requested, free of charge, to participate in a wrap-up session for the Ministry of Finance (MOF), the EA/IAs and ADB to share common findings across projects being audited and provide recommendations for addressing bottlenecks in preparation for the next audit.

M. Services to be Provided to the Auditor:

26. The following services will be provided by the EA/IAs without cost to the Auditor. The PCU should coordinate with the EA/IAs and the Auditor to ensure the following services are adequately and timely provided to the Auditor:

- a. Data: Provide the Auditor with access to all available data, information, legal documents, correspondence and any other information considered necessary by the Auditor and shall be returned at the completion of the assignment or earlier, or as may be requested by the EA/IAs.
- b. Access: The PCU and the EA will arrange for access by the Auditor to the sites which the Auditor deems necessary to visit and conduct investigations in connection with performing their duties. Access to the key officials in the Government, the project provinces and agencies concerned with subjects related to the assignment will also be arranged by the EA/IAs, as appropriate.

N. Auditor Qualification

27. Please refer to: "Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers" - Part 1: Introduction and Policies for further instruction on general consultant qualification. The following are the requirements on the qualification of auditing firms for auditing ADB funded projects in Viet Nam. It must be authorized to practice in Viet Nam and be capable of applying the agreed auditing standards. The detailed requirements on the qualification of auditing company are:

- a. Be a legal entity with business license granted by the competent authority, as requested by Vietnamese law;
- b. Must be impartial and independent from all aspects of management or financial interests in the EA/IA being audited.
- c. Be included in the most updated list of authorized auditing companies and auditors which is approved by Ministry of Finance and published on website: www.mof.gov.vn;
- d. Have adequate staff, with appropriate professional qualifications and suitable experience in finance/financial management in Official Development Assistance (ODA) funded projects or Government projects/ programs, including experience in auditing the Enterprise Financial system (EFS) comparable in nature, size and complexity to the entity whose audit they are to undertake;

- e. Notify and get written endorsement of the EA every time a staff member is substituted; and
- f. Subcontracting of audit services is not permitted.

28. The following are the requirements on the qualification of Individual auditor for each proposed position in the firm. The TOR must indicate clearly how many international and national experts the assignment will include. General requirements on the Qualification of Individuals are as follows: Auditors shall hold relevant professional qualifications with in-depth experience in conducting audits of project FSs. Auditors should hold a fair opinion on, and be independent of, control of the submitting entity and the employer by whom they were appointed. The auditor should follow procedures and methodology that conform to International Standards on Auditing (ISA). The following are the outline TOR of each position:

N.1. Audit Director (AD): (one national, 6 person-months)

As head of the audit team, the Director will be responsible for:

- a. Keeping lines of communication open with staff and clients.
- b. Ability to manage within budgetary and time constraints while providing a high-level of client satisfaction
- c. Anticipating and addressing client concerns and escalating problems as they arise.
- d. Keeping abreast of latest developments as they affect GAAP and the Firm's standards and policies
- e. Developing an understanding of client's business and becoming a "functional expert" in the area.

Minimum Qualifications/Experience:

- a. A university graduate (preferably with a post-graduate degree) in Accounting, finance, Certified auditor certificate by the MOF or international certificate (ACCA or other recognized international accounting/ auditing certificate),
- b. Preferably 15 years or above experience working in auditing services; At least 4 year experience in management of auditing teams; and at least 8 years actual working years in auditing since being granted with Vietnamese or international auditor certificate;
- c. Should have worked as Audit Director preferably for 3 audit contracts on ADB, the World Bank or other international donors funded projects;
- d. Fluent English is compulsory;
- e. Experience working for a Big 4 or large regional accounting firm is a plus.

N.2. Audit Managers (AM): (two national, 12 person-months)

The Manager will be responsible for:

- a. Receive the instructional directives from Directors and give detailed guidance to all team members;
- b. Monitor the audit fieldwork of engagement team, reviews staff work and ensure that it meet professional standards and the internal audit department's guidelines;

- c. Take responsibility for the quality of the audit before submitting to Director;
- d. To be the contact point with Client's Management and Chief Accountant regarding key issues identified, audit adjustments; and
- e. Monitor the progress of the audit and monitor the adherence to the deadline committed with Client.

Minimum Qualifications/Experience:

- a. A university graduate (preferably with a post-graduate degree) in Accounting, finance, Certified auditor certificate by the MOF or international certificate (ACCA or other recognized international accounting/ auditing certificate),
- b. Preferably with 10 years or above experience working in auditing services; Audit seniors who are the team leader shall have 5 years' experience in their profession;
- c. Audit experience for ADB/World Bank funded projects in Vietnam would be an advantage;
- d. Ability to work within budgetary and time constraints while providing a high-level of client satisfaction;
- e. Certified auditor certificate by the MOF or international certificate (ACCA or other recognized international accounting/ auditing certificate).

N.3. Senior Auditors/ Team leaders (SA/TL): (two national, 24 person-months)

The Senior Auditors will be responsible for:

- a. Follow the instructions from Director and Engagement Manager;
- b. Keep AD and AM being updated with the key issues or key audit adjustments day to day;
- c. Being responsible for the audit quality of the whole team in front of AM;
- d. Being responsible for the compliance with auditing firm quality standards and procedures and with the requirements of Clients/ Projects.

Minimum Qualifications/Experience:

- a. Senior Auditors are required to be graduates of a recognized university in the fields of Commerce, Economics, Accounting and Auditing or equivalent;
- b. Preferably with 5 years or above experience working in auditing services;
- c. Preferably to whom holding Certified auditor certificate by the MOF or international certificate (ACCA or other recognized international accounting/ auditing certificate);
- d. Preferably should have worked as Auditor for audit contracts on ADB's, the World Bank's on other international donors' funded projects; and
- e. English proficiency would be preferable.

N.4. Auditors: (five national, 60 person-months)

The Auditors will be responsible for:

- a. Implementing professional work, auditing assigned sections in the agencies, be responsible for the data and issues related to the auditing activities.
- b. Supporting to release the official report; draft minute of audit; report to the Team leader of the rising issues related to the audit in the agencies.

Minimum Qualifications/Experience:

- a. A university graduate (preferably in recognized university in the fields of Commerce, Economics, Accounting and Auditing or equivalent);
- b. Preferably with 3 years or above experience working in auditing services Preferably to whom holding Certified auditor certificate by the MOF or international certificate (ACCA or other recognized international accounting/ auditing certificate);
- c. Should have worked as Auditor for audit contracts on ADB's, the World Bank's on other international donors' funded projects would be preferable).
- d. English proficiency would be preferable.

O. Involvement of Technical Experts:

29. Depending on the complexity of procurement activities, the auditor may consider involving technical experts during the audit engagement. In cases where such experts are involved, the auditor is expected to comply with provisions of International Standard on Auditing 620: Using the Work of an Expert. Consideration to use of the work of experts should be brought to the early attention of the borrower and the ADB for mutual agreement and appropriate guidance.

P. Reporting Relationships:

30. The audit services will be contracted by EAs/IAs or project management units. The Auditor shall report to: the Project manager and Chief Accountant. The Auditor should maintain and file the work papers and provide them to ADB and/or the Government when required.

Q. Contract and Procurement Mode

31. Please refer to: Annex 5 attached to this TOR.

SUMMARY OF CONSULTANT INPUTS

No.	Expertise	Assignment	Person-Months (International)	Person-Months (National)
I. Project Implementation Support Consultant				
1	Team Leader/Civil Engineer	International	28	
1	Climate Change/Urban Planner	International	7	
1	Financial Management Specialist	International	5	
1	Environmental and Climate Proofing Monitoring Specialists	International	6	
1	Resettlement Specialist	International	6	
1	Social Development and Gender Specialist	International	6	
1	Deputy Team Leader/Civil Engineer	National		54
2	Climate Change/Urban Planners	National		14
2	Financial Management Specialists	National		36
2	Contract Management Experts	National		30
2	Environmental and Climate Proofing Monitoring Specialists	National		36
2	Resettlement Specialists	National		36
2	Gender Training Specialists	National		12
19			58	218
II. Dong Hoi Coastal Management				
1	Team Leader	International	8	
1	Senior Coastal Geomorphologist	National		6
1	Senior Coastal Morphology Expert	National		6
1	Senior Coastal Survey Engineer	National		5
1	Senior Coastal Hydraulic Engineer	National		5
1	Senior Coastal Modeling Expert	National		4
1	Remote Sensing, GIS Expert	National		4
7			8	30
III. Hoi An Flood Forecasting and Warning System				
2	Team Leader/Flood and Drought Forecasting/Climate Change Specialist		12	26
2	Catchment and River Modeler		8	16
2	Coastal Modeler		4	8
2	Forecasting Systems Development Specialist		7.5	15
2	Emergency Communication Management/Community Engagement Specialist		7.5	15
2	Software Developer		4	8
2	ICT Specialist		3	6
2	Flood Management Specialist		3	6
2	Institutional Specialist		4	8
2	Capacity Building/Training Specialist		2	4
20			55	112

SUMMARY OF CONSULTANT INPUTS

No.	Expertise	Assignment	Person-Months (International)	Person-Months (National)
IV. External Monitoring Organization				
1	Team Leader/Social Safeguard Specialist	National		12
1	Environment Specialist	National		2
2				14
V. Audit				
1	Audit Director	National		6
2	Audit Manager	National		12
2	Senior Auditor	National		24
5	Auditor	National		60
10				102
VI. Individual Consultants				
1	Urban Planner	International	6	
1	Procurement	International	6	
1	Procurement	National		9
1	Environment	National		4
1	Resettlement	National		8
5			12	21

OUTLINE OF RP/IPP MONITORING/IMPLEMENTATION REPORT

1. Following requirements of the ADB Safeguard Policy Statement (2009) and the Operations Manual section on safeguard policy (OM F1), borrowers/clients are required to establish and maintain procedures to monitor the status of implementation of safeguard plans and ensure progress is made toward the desired outcomes. For projects categorized as A or B in Involuntary Resettlement and/or Indigenous People, the Borrowers/clients are required to submit semiannual monitoring reports for ADB review. The level of detail and comprehensiveness of a monitoring report is commensurate with the complexity and significance of social safeguards impacts (IR and IP) and with the current status of project implementation phase.

This outline can be used for:

1. Periodic monitoring report (semiannual) and/or
2. RP/IPP completion report to start the civil works on the impacted areas.

2. A safeguard monitoring report may include the following elements:

A. Executive Summary *This section provides a concise statement of project scope and impacts, key findings and recommended actions (as applicable).*

B. Background of the Report and Project Description *This section provides a general description of the project, including:*

- Background/context of the monitoring report which includes the information on the project, project components, safeguards categorizations and general scope of the social safeguards impacts.
- Information on the implementation progress of the project activities, scope of monitoring report and requirements, reporting period,
- Changes in project scope, if any,
- Summary table of identified impacts and the mitigation actions.

C. Scope of Impacts *This section outlines the detail of:*

- Scale and scopes of the project impacts on involuntary resettlements or indigenous people as identified in the approved RP/IPP,
- Adjusted safeguard measures due to changes in project scope, if applicable,
- Vulnerability status of the affected people/communities,
- Entitlements matrix and other rehabilitation measures, as applicable, as described in the approved final RP(s) /IPP(s).

D. Status of RP/IPP Implementation

a. Institutional Arrangement and Capacity

3. This section describes the actual implementation or any adjustment made to the institutional arrangement for implementing and managing the social safeguards issues in the projects. This may include the establishment of safeguards unit/ team and appointment of staff in the EA/IA; implementation of the GRM and its committee; supervision and coordination

between institutions involved in the management and monitoring of safeguards issues, the roles of NGO and women's groups in the monitoring and implementation of the plan, if any; budget/fund availability for implementing the GRM, RP/IPP; adequacy of EA/IA capacity to manage safeguards issues; updated RP/IPP implementation schedule, etc.

b. Compensation and Rehabilitation¹

4. Depending on the status of the final detail design during the submission of the report these activities might not yet started. In this situation provide the information on the project's readiness for the RP/IPP implementation and management (i.e. LAR fund availability, RP finalization, assets inventory and mapping, ID cards distribution, etc.) and the updated schedule of the compensation and rehabilitation activities, as applicable.

5. Specific for the FI projects, external agency may be required to conduct an audit of the project ESMS.

6. This section describes the process and progress of the implementation of the land acquisition and resettlement (LAR) and/or indigenous people (IP) impacts mitigation activities as determined in the RP/IPP. This includes payment of the affected assets compensation, allowances, loss of incomes, etc. to the entitled persons; provisions of other types of entitlement as described in the matrix and implementation of livelihood rehabilitation activities as determined in the plan. Quantitative as well as qualitative results of the monitoring parameters, as agreed in the plan, should be provided. (e.g., adequacy of IR compensation rates and timeliness of payments, adequacy and timeliness of IR rehabilitation measures including preparation of the replacement housing sites, house reconstruction, livelihood support measures, and training, etc.)

c. Disclosure and public consultation

7. This section describes public disclosure and consultations activities during the project's implementation as agreed in the plan. This includes final consultations with APs during RP finalization after the completion of detail design; the numbers of activities conducted; issues raised during consultations and responses provided by the project team, implementing NGOs, project supervision consultants, contractors, etc.

d. Grievance Redress Mechanism (GRM)

8. This section described the implementation of project GRM as design in the approved RP/IPP. The monitoring and evaluation include its readiness, effectiveness, procedures, complaints receive, timeliness to resolve issues/ complaints and adequacy of resources provided to solve the complaints. Special attentions should be given if there are complaints received from the affected people or communities.

E. Monitoring Results - Findings

9. This section describes the summary and key findings of the monitoring activities. The results are compared against previously established benchmarks and compliance status. It also compared against the objectives of safeguards or desired outcomes documented (e.g. IR impacts avoided or minimized; livelihood restored or enhanced; IP's identity, human right, livelihood systems and cultural uniqueness fully respected; IP not suffer adverse impacts, other social impacts avoided or minimized, etc.). For FI projects this includes the effectiveness of the

Environmental and Social Management System (ESMS) managed by the FI and its participating institutions². If noncompliance or any major gaps identified, include the recommendation of corrective action plan.

F. Compliance Status

10. This section will summarize the compliance status of the project activities with the loan covenants, ADB SPS (2009) on SR 2, the approved final RP(s) and the Project Administration Manual (PAM).

G. Follow up Actions, Recommendation and Disclosure

11. This section describes recommendations and further actions or items to focus on for the remaining monitoring period. It also includes lesson learned for improvement for future safeguards monitoring activities. Disclosure dates of the monitoring report to the affected communities should also be included and, as needed, a time-bound summary table for required actions.

Appendix 1

- i. Summary of final/draft RP/IPP with entitlement matrix
- ii. Summary matrix of policy and loan covenants compliance status

Appendix 2

- i. List of Affected Persons and Entitlements
- ii. Copies of AP's certification of payment (signed by the APs)
- iii. Summary of minutes of meetings during public consultations
- iv. Summary of complaints received and solution status

OUTLINE QUARTERLY PROGRESS REPORT FORMAT

A. Introduction and Basic Data

- ADB loan numbers, project title, borrower, executing agency(ies), implementing agency(ies);
- total estimated project cost and financing plan per loan;
- status of project financing including availability of counterpart funds by loan;
- dates of approval, signing, and effectiveness of ADB loans;
- original and revised (if applicable) ADB loan closing date and elapsed loan period based on original and revised (if applicable) loan closing dates; and
- date of last ADB review mission.

B. Utilization of Funds (ADB Loan and Counterpart Funds)

- cumulative contract awards financed by the ADB loan, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets);
- cumulative disbursements from the ADB loan and counterpart funds (expenditure to date), and comparison with time-bound projections (targets); and
- reestimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

C. Project Outcome and Outputs

- status of project scope/implementation arrangements compared with those in the report and recommendation of the President (RRP), and whether major changes have occurred or will need to be made;
- an assessment of the likelihood that the project outcome and outputs will be met in part or in full, and whether remedial measures are required based on the current project scope and implementation arrangements;
- an assessment of changes to the key assumptions and risks that affect attainment of the project outcome and outputs.

D. Implementation Progress

- for each loan, provide a brief summary assessment of progress or achievements in implementation since the last progress report;
- assessment of the progress of each project output, such as,
 - recruitment of consultants and their performance;
 - procurement of goods and works (from preparation of detailed designs and bidding documents to contract awards); and
 - the performance of suppliers, manufacturers, and contractors for goods and works contracts;
- assessment of progress in implementing the overall project to date in comparison with the original implementation schedule—quantifiable and monitorable target, (include simple charts such as bar or milestone to illustrate progress, a chart showing actual versus planned expenditure, S-curve graph showing the relationship between physical and financial performance, and actual progress in comparison with the original schedules; and
- an assessment of outcome and output achievements versus targets.

E. Major Project Issues and Problems

Summarize the major problems and issues affecting or likely to affect implementation progress, compliance with covenants, and achievement of project outcome and outputs. Recommend actions to overcome these problems and issues (e.g., changes in scope, changes in implementation arrangements, and reallocation of loan proceeds).

F. Compliance with Safeguards and Covenants

- review the borrower's compliance with policy loan covenants, and, where relevant, provide any reasons for any noncompliance or delay in compliance;
- provide a summary assessment of compliance with resettlement and environmental safeguards;
- provide a summary assessment and update on the implementation of the gender action plan (GAP).

APPENDIXES

1. Summary Loan Covenant Review
2. Summary Safeguards Update (Resettlement and Environment)
3. Summary Gender Action Plan Progress
4. Quarterly Environmental Monitoring Report
5. Quarterly Resettlement Monitoring Report

PROCUREMENT CAPACITY ASSESSMENT

Proposed Project Name: Urban Environment and Climate Change Adaptation Project	Proposed Amount: \$144.18 million
Executing Agency: Quang Binh Urban Environment Company (URENCO) of Quang Binh Provincial People's Committee (PPC) Quang Nam Water Supply and Drainage Company (WSDC) of Quang Nam PPC	Source of Funding: OCR: \$100.00 million UCCRTF: \$4.00 million Government: \$40.18 million
Assessor: Nguyen Trung Hue, Procurement Specialist, PPTA consultant	Date: August 2014
<p>Expected Procurement</p> <p>The procurement covers the following subprojects in Dong Hoi.</p> <p><u>Bao Ninh Urban Development</u></p> <ul style="list-style-type: none"> • Preparation of land use plan • Construction of 5.8km of connecting roads • Construction of wastewater networks comprising 13km of gravity sewer, 3.5km of pumping main, and 3 pump stations • Construction of drainage system comprising 11.6km of roadside swales, detention storage ponds for 1.6ha, and 7km of pipe to final outfall <p><u>Wastewater Management</u></p> <ul style="list-style-type: none"> • Construction of 25km of tertiary sewerage • Construction of 7,000 house connections • Construction and upgrading of 3.1km of combined drainage systems including 1 pumping station • Provision of telemetry systems for 10 combined sewer overflows and 17 pumping stations <p>The procurement covers the following subprojects in Hoi An.</p> <p><u>Co Co Urban Development</u></p> <ul style="list-style-type: none"> • Preparation of land use plan • Construction of 30km of road networks with drainage and street lights • Construction of 24km of secondary, 41km of tertiary sewerage and one pumping station • Construction of 4.86km of access road to connect with Cua Dai Bridge <p><u>Integrated Flood Management</u></p> <ul style="list-style-type: none"> • Dredging of Phap Bao lake (80,000m³) • Establishment of flood forecast and warning system • Elevation of 5.4km of Road 608. <p><u>Water Supply Improvement</u></p> <ul style="list-style-type: none"> • Construction of a new water intake including an inlet gate, raw water pumping station, and associated pipeline • Dredging of Lai Nghi reservoir (530,000m³) • Implementation of non-revenue water reduction program • Establishment of management information system <p>Goods and works will be procured under the project. Large lots will be offered to the market by International Competitive Bidding while National Competitive Bidding will be used for the smaller packages according to the ADB thresholds. The EAs will manage the project with support from the project implementation support consultant recruited under the loan to supplement the EAs' resources.</p> <p>Assessment of the National Environment</p> <p>Viet Nam's public procurement legal and regulatory framework is in essence sound and well developed.</p>	

The Procurement Law (2005) was amended in 2013 to address various issues such as cumbersome selection procedures and inconsistencies with other laws and regulations. The revised Procurement Law (2013) has resolved such issues and strictly regulates to control procurement activities to ensure fair and open competition. Furthermore, the Law is further harmonized with the procurement policies and guidelines of development partners. The Law recognizes that development partner's rules and procedures on procurement may prevail where the "international treaty" entered into by the government. Most government agencies are competent to conduct procurement according to national rules and procedures, but not necessarily so following guidelines of development partners.

General Agency Resource Assessment

A PMU has been established under each of the Quang Binh URENCO and the Quang Nam WSDC with sufficient number of qualified procurement staff and well equipped project office. Both PMUs have recent experience in managing procurements for projects financed by the World Bank, UN Habitat, Government of Norway, and Government of Italy. But both PMUs have not been involved in ADB financed projects.

Agency Procurement Practice: Goods and Works

Procurement documents including shortlist and prequalified firms, draft bid documents, and bid evaluation reports are prepared by the PMU. The documents are reviewed and approved by the Bid Evaluation Board under the PPC. The Board includes experts from different departments of the PPC. The procurement approval process is complicated and time consuming. Day-to-day contract management activities are undertaken by the PMU. Although the PMUs are experienced in procuring and managing goods and works under the projects funded by development partners, this project will be the first ADB-funded project for them to implement. Accordingly, PMUs will need capacity development in ADB's procurement guidelines and support from the project implementation support consultant engaged under the loan.

Agency Procurement Practice: Consulting Services

Procurement documents including shortlisted firms, draft request for proposal, and bid evaluation reports are prepared by the PMUs. The documents are reviewed and approved by the Bid Evaluation Board under the PPC. The Board includes experts from different departments of the PPC. The procurement approval process is complicated and time consuming. Day-to-day monitoring, supervision, and contract management are undertaken by the PMU. Although the PMUs are experienced in procuring and managing consulting services under the projects funded by development partners, this project will be the first ADB-funded project for them to implement. Accordingly, PMUs will need capacity development in ADB's guidelines for use of consultants.

Process Control and Oversight

The Quang Binh and Quang Nam PPCs approve the documents and decisions related to procurement prior to PMUs initiating follow-on action at any stage of project implementation. PMU Project Directors exercise primary oversight of procurement process. Procurement process is tied to fiscal year exercise, with financial commitments tied to budgeting cycle.

Records Keeping and Audit

Proper filing system is applied to protect original contracts, copies of bids, evaluation reports, and other documents related with procurement. Independent auditor will be engaged for auditing of procurement and financial reports.

Summary Assessment and Recommendations

Generally, the procurement risks are low. The executing agencies' procurement teams are experienced in conducting this type of procurement. The procurement procedures and requirements of the government are broadly aligned with the international practice. The executing agencies have recent experiences in selecting and managing contracts for goods and works, and consulting services. However, considering their unfamiliarity with ADB's guidelines, the PMUs will need training on ADB's guidelines particularly for procuring and managing consulting services, and support from the project implementation support consultant for procurement and management of goods and works contracts.

Specific Recommendations on Project Implementation		
Capacity Constraints	Recommended Action	Responsibility and Comment
The PMUs are not familiar with ADB's procedures and requirements.	Project implementation support consultant will be engaged to assist and provide on-the-job training for PMUs in procuring and managing the contracts.	An individual national consultant was engaged to under PPTA to help recruit the project implementation support consultant.
General Recommendations on EA Capacity		
Capacity Constraints	Recommended Action	Responsibility and Comment
Procurement assessment questionnaires and field investigation demonstrate that the PMUs have sufficient practices and strengths in procurement under externally financed projects. Experiences in preparing documents, evaluating bids, and administering contracts for goods, works, and consulting services using ADB loan funds are limited.	Capacity development programs will be provided for the PMUs to strengthen skills to procure and manage international contracts.	Training will be provided as part of Output 3: improved competencies in urban environment and climate change adaptation.
General Recommendations on Procurement Environment		
Capacity Constraints	Recommended Action	Responsibility and Comment
The new Procurement Law (2013) has addressed a number of issues of the previous Procurement Law (2005). Although the related Decrees have been issued, Circulars to guide implementation of the new Procurement Law and its related Decrees still need to be finalized and issued.	Long-term procurement reform will be needed to highlight open and competitive processes as well as streamlined approval process.	Public Procurement Agency (PPA), Ministry of Planning and Investment is responsible for the procurement reform with support from the development partners.

General Procurement Environment Assessment

Criteria	Risk Assessment	Comment
1. Is there a procurement law?	Yes, Low	The new Procurement Law was issued in 2013.
2. Are the laws and regulations clear and concise?	Average	Each law concerning procurement has complex network of Decrees and Circulars.
3. What does the law (or regulations applicable to procurement) cover?	Low	Covers all aspects of procedures with related templates.
4. Does the law cover the procurement of consulting services?	Yes, Low	
5. Does the law differentiate between processes for consulting services and Goods/Works?	Yes, Low	
6. Does the law require advertisement of all procurement opportunities	Yes, Average	Advertisement required also under Shopping.
7. Are contract awards advertised?	Yes, Average	
8. Are there restrictions on goods works and services on the basis of origin?	Yes, Average	Only national bidders are allowed to participate in NCB.
9. Do the law or relevant legislation and regulations provide acceptable provision for the participation of state owned enterprises?	No, High	Procurement Law has provisions on SOE but limits eligibility criteria to state-ownership of shares. Independence of Management insufficiently accounted for.
10. Are there restrictions on the nationality of bidders and consulting firms invited?	Yes, Average	Only national bidders are allowed to participate in NCB
11. Are foreign bidders and consultants forced to offer through or with local partners?	Yes, Average	Consultants are required to offer with local partners.
12. Is there a domestic preference scheme?	Yes, Average	Domestic preference is applied under ICB for goods and works as well as consulting services.
13. Is there a national standard mandated for use for quality control purposes?	Yes, Low	
14. Are any agencies exempt from the law?	No, Low	Procurement Law applies to projects funded by States at least 30% of the total budget.
15. Is the default method for procurement open competition?	Yes, Low	
16. Is open procurement easily avoided?	Yes, Low	Direct contracting is allowed under certain circumstances. Procedures and conditions applicable to direct contracting are more detailed and regulated than in previous Procurement Law (2005).
17. Do the rules and regulations require pre-qualification?	Low	Only for complex contracts.

Criteria	Risk Assessment	Comment
18. Do the rules and regulations require registration?	No, Low	
19. Are there systematic procurement process audits?	Yes, Average	Audit capacity and coverage are limited.
20. Is there a national procurement manual or guide?	Yes, Low	Multiple manuals in multiple Circulars.
21. Do the laws and regulations mandate the use of standard documents?	Yes, Low	
22. Have these standard bidding document's been approved for use on ADB projects?	No, Average	Harmonized standard bidding documents for works and goods have been agreed to use on ADB projects. However, they should be jointly issued by ADB and WB, the Government will not be the body to issue the documents that they have no ownership.
23. Do the regulations require the collection of nation wide statistics on procurement?	Yes, Low	PPA is responsible.
24. Is consolidated historical procurement data available to the public?	No, High	No, High
25. Do the procurement laws and regulations contain provisions for dealing with misconduct?	Yes, Average	Enforcement of laws and regulations is weak.
26. Is fraud and corruption in procurement regarded as a criminal act?	Yes, Low	
27. Have there been prosecutions for fraud and corruption?	Yes, High	There are a few high visibility cases.
28. Is there an alternative disputes resolution process independent of government and courts?	Yes, Average	The new Procurement Law (2013) states courts are responsible for handling disputes in accordance with the laws on civil proceedings.
29. Does the law allow for sovereign immunity to the EA for claims against it?	No, Low	
30. Do the regulations allow for black listing (disbarment) of firms and individuals and if they do?	Yes, Low	EAs prepare black list and submit to PPA.
31. Which body oversees procurement?	Average	PPA at central level, and Department of Planning and Investment at provincial level.
32. What powers does the oversight body have?	Low	No enforcement authority. The Public Procurement Agency reports to the Minister of Planning and Investment.
33. Is there a nationwide procurement training plan?	Yes, Average	Training programs administered by PPA focuses only on national laws and procedures.
34. Is there a procurement accreditation or professionalisation program?	Yes, Average	Certification is only for national laws and procedures.
35. Are major projects identified within an agencies	Yes, Low	

Criteria	Risk Assessment	Comment
appropriation or budget?		
36. Is the procurement cycle tied to an annual budgeting cycle? i.e. can procurement activity only commence once a budget is approved?	Yes, Average	Expenditures have to be made within the fiscal year.
37. Once an appropriation or budget is approved will funds be placed with the EA or can the EA draw them down at will?	Yes, Low	
38. Can an EA draw directly from a loan or imprest account or will it spend budgeted funds with the borrower claiming reimbursement?	Yes, Low	
39. When an EA is implementing a project using funds from the national budget has a delay in funding significantly delayed procurement?	Yes, High	Allocation of counterpart funds are often delayed, but the situations vary depending on the EA.

Procurement Assessment Questionnaire – Quang Binh URENCO

Risk Ratings	Extremely High	High	Average	Low
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I. Specific Assessment and Ratings:

Question	Answer/Finding	Risk
A. ORGANIZATIONAL AND STAFF CAPACITY		
A.1. How many years experience does the head of the procurement department/unit have in a direct procurement role?	9 years	Low
A.2. How many staff in the procurement department/unit are:	27	Low
i. Full Time?	5	
ii. Part Time?	7	
iii. Seconded?	15	
A.3. Does the procurement staff have English language proficiency?	Yes	Low
A.4. Are the number and qualifications of the staff sufficient to undertake the additional procurement that will be required under the proposed project?	Sufficient in number and capacity	Low
A.5. Does the unit have adequate facilities, such as PCs, internet connections, photocopy facilities, printers, etc., to undertake the planned procurement?	Yes	Low
A.6. Does the agency have a procurement training program?	Yes	Low
A.7. Does the agency have a Procurement Committee that is independent from the head of the agency?	Yes	Low
A.8. Does the agency have a procurement department/unit, including a permanent office that performs the function of a Secretariat for the Procurement Unit, and which serves as the main support unit of the Procurement Committee??	Yes	Low
A.9. If yes, what type of procurement does it undertake?	International Competitive Bidding ICB NCB (National Competition Bidding) Competitive offer (Shopping) QCBS (Quality and Cost Based Selection) CQS (Consellor Qualification Standards) SSS (Single Source System) IC (Independent Consultant)	
A.10. At what level does the department/unit report (to the head of agency, deputy etc.)?	Director of Quang Binh URENCO	Low
A.11. Do the procurement positions in the agency have job descriptions, which outline specific roles, minimum technical requirements and career routes?	Yes	Low
A.12. Is there a procurement process manual for goods and works?	Yes	Average
A.13. If there is a manual, is it up to date	Updated for each specific project	

Question	Answer/Finding	Risk
and does it cover foreign-assisted projects?		
A.14. Is there a procurement process manual for consulting services?	Yes	Average
A.15. If there is a manual, is it up to date and does it cover foreign-assisted projects?	Updated for each specific project	
A.16. Are there standard documents in use, such as Standard Procurement Documents/Forms, and have they been approved for use on ADB funded projects?	No	Average
A.17. Does the ToR follow a standard format such as background, tasks, inputs, objectives and outputs?	Yes	
A.18. Who drafts the procurement specifications?	PMU Procurement Division with support from consultants	Low
A.19. Who approves the procurement specifications?	Quang Binh PPC	Low
A.20. Who drafts the bidding documents?	PMU Procurement Division with support from consultants	Low
A.21. Who manages the sale of the bidding documents?	Procurement Division	Low
A.22. Who identifies the need for consulting services requirements?	Quang Binh PPC / PMU	Low
A.23. Who drafts the terms of reference (ToR)?	PMU Procurement Division with support from consultants	Low
A.24. Who prepares the request for proposals (RFPs)?	PMU Procurement Division with support from consultants	Low
B. INFORMATION MANAGEMENT		
B.1. Is there a referencing system for procurement files?	Yes	Low
B.2. Are there adequate resources allocated to record keeping infrastructure, which includes the record keeping system, space, equipment and personnel to administer the procurement records management functions within the agency?	Yes	Low
B.3. For what period are records kept?	20 years after project completed	Low
B.4. Are copies of bids or proposals retained with the evaluation?	Yes	Low
B.5. Are copies of the original advertisements retained with the pre-contract papers?	Yes	Low
B.6. Is there a single contract file with a copy of the contract and all subsequent contractual correspondence?	Yes	Low
B.7. Are copies of invoices included with the contract papers?	Yes	Low
C. PROCUREMENT PRACTICES		
Goods and Works		
C.1. Has the agency undertaken foreign-assisted procurement of goods or works recently (last 12 months, or last 36	Yes - Coastal Cities Environmental Sanitation Project: Nha Trang - Khanh Hoa, Quy	Low

Question	Answer/Finding	Risk
months)? (If yes, please indicate the names of the development partner/s and the Project/s.)	Nhon - Binh Dinh and Dong Hoi - Quang Binh (Dong Hoi city subproject) funded by the World Bank (ongoing)	
C.2. If the above answer is yes, what were the major challenges?	The differences between the provisions of the donors with government regulations	
C.3. Is there a systematic process to identify procurement requirements (for a period of one year or more)	Procurement plan is updated for 18 months	Low
C.4. Is there a minimum period for preparation of bids and if yes how long?	Yes 6 weeks for ICB 4 weeks with NCB and QCBS	Low
C.5. Are all queries from bidders replied to in writing?	Yes	
C.6. Does the bidding document state the date and time of bid opening?	Yes	Low
C.7. Is the opening of bids done in public?	Yes	Low
C.8. Can late bids be accepted?	No	
C.9. Can bids be rejected at bid opening?	No	
C.10. Are minutes of the bid opening taken?	Yes	Low
C.11. Who may have a copy of the minutes?	All bidders	
C.12. Are the minutes free of charge?	Free	
C.13. Who undertakes the evaluation of bids (individual(s), permanent committee, ad-hoc committee)?	Ad-hoc bid evaluation team comprising staff with relevant skills	Low
C.14. What are the qualifications of the evaluators with respect to procurement and the goods and/or works under evaluation?	General qualifications, experience in similar projects, and procurement related certifications	Low
C.15. Is the decision of the evaluators final or is the evaluation subject to additional approvals?	Need approval of Quang Binh PPC	Low
C.16. Using at least three real examples, how long does it normally take from the issuance of the invitation for bids up to contact effectiveness?	World Bank financed Coastal Cities Sanitation Project DH1.10 Package (ICB): 128 days DH2.2 Package (NCB): 78 days DH-CB2 Package (QCBS): 155 days.	Low
C.17. Are there processes in place for the collection and clearance of cargo through ports of entry?	No	High
C.18. Are there established goods receiving procedures?	Yes	Low
C.19. Are all goods that are received recorded as assets or inventory in a register?	Yes	Low
C.20. Is the agency/procurement department familiar with letters of credit?	Yes	Low
C.21. Does the procurement department register and track warranty and latent defects liability periods?	Yes	Low
Consulting Services		
C.22. Has the agency undertaken foreign-	Yes	Low

Question	Answer/Finding	Risk
assisted procurement of consulting services recently (last 12 months, or last 36 months)? (If yes, please indicate the names of the development partner/s and the Project/s.)	Coastal Cities Sanitation Project in Dong Hoi funded by the World Bank (2006–2014)	
C.23. If the above answer is yes, what were the major challenges?	The difference between the provisions of the donors with government regulations	
C.24. Are assignments and requests for expressions of interest (EOIs) advertised?	Yes	Low
C.25. Is a consultants' selection committee formed with appropriate individuals, and what is its composition (if any)?	Technical, financial, institutional, and safeguard specialists (depending on the nature of each package)	Low
C.26. What criteria is used to evaluate EOIs?	Experience in implementing other similar contracts, availability of the consultant resource, and regional experiences.	Low
C.27. Historically, what is the most common method used (QCBS, QBS, etc.) to select consultants?	QCBS	Low
C.28. Do firms have to pay for the RFP document?	No	Low
C.29. Does the proposal evaluation criteria follow a pre-determined structure and is it detailed in the RFP?	Yes	Low
C.30. Are pre-proposal visits and meetings arranged?	Yes	Low
C.31. Are minutes prepared and circulated after pre-proposal meetings?	Yes	
C.32. To whom are the minutes distributed?	All bidders	
C.33. Are all queries from consultants answered/addressed in writing?	Yes	Low
C.34. Are the technical and financial proposals required to be in separate envelopes?	Yes	Low
C.35. Are proposal securities required?	No	Low
C.36. Are technical proposals opened in public?	Yes	Low
C.37. Are minutes of the technical opening distributed?	Yes	
C.38. Do the financial proposals remain sealed until technical evaluation is completed?	Yes	
C.39. Who determines the final technical ranking and how?	Bid evaluation team, then up to PPC approval	Low
C.40. Are the technical scores sent to all firms?	All bidders	
C.41. Are the financial proposal opened in public?	Yes	
C.42. Are minutes of the financial opening distributed?	Yes	Low
C.43. How is the financial evaluation completed?	According to the rules stipulated in the RFP	
C.44. Are face to face contract negotiations held?	Yes	

Question	Answer/Finding	Risk
C.45. How long after financial evaluation is negotiation held with the selected firm?	Within 1 week	
C.46. What is the usual basis for negotiation?	Compliance with the RFP and elimination of deviations	
C.47. Are minutes of negotiation taken and signed?	Yes	
C.48. How long after negotiation is the contract signed?	Within 1 week	Low
C.49. Is there an evaluation system for measuring the outputs of consultants?	Yes	Low
Payments		
C.50. Are advance payments made?	Yes	Low
C.51. What is the standard period for payment included in contracts?	Advance payment and payments in stages/phases or the timeline	Low
C.52. On average, how long is it between receiving a firm's invoice and making payment?	Within 1 week	
C.53. When late payment is made, are the beneficiaries paid interest?	Yes	
D. EFFECTIVENESS		
D.1. Is contractual performance systematically monitored and reported?	Yes	Low
D.2. Does the agency monitor and track its contractual payment obligations?	Yes	Low
D.3. Is a complaints resolution mechanism described in national procurement documents?	Yes	Low
D.4. Is there a formal non-judicial mechanism for dealing with complaints?	Yes	Average
D.5. Are procurement decisions and disputes supported by written narratives such as minutes of evaluation, minutes of negotiation, notices of default/withheld payment?	Yes	Low
E. ACCOUNTABILITY MEASURES		
E.1. Is there a standard statement of ethics and are those involved in procurement required to formally commit to it?	Yes	Low
E.2. Are those involved with procurement required to declare any potential conflict of interest and remove themselves from the procurement process?	Yes	Low
E.3. Is the commencement of procurement dependent on external approvals (formal or de-facto) that are outside of the budgeting process?	No	High
E.4. Who approves procurement transactions, and do they have procurement experience and qualifications?	Director, Quang Binh URENCO	Low
E.5. Which of the following actions require approvals outside the procurement unit or the evaluation committee, as the case may		Low

Question	Answer/Finding	Risk
be, and who grants the approval?		
a) Bidding document, invitation to pre-qualify or RFP	Director, Quang Binh URENCO	
b) Advertisement of an invitation for bids, pre-qualification or call for EOIs	Director, Quang Binh URENCO	
c) Evaluation reports	Director, Quang Binh URENCO	
d) Notice of award	Director, Quang Binh URENCO	
e) Invitation to consultants to negotiate	Director, Quang Binh URENCO	
f) Contracts	Director, Quang Binh URENCO	
E.6. Is the same official responsible for: (i) authorizing procurement transactions, procurement invitations, documents, evaluations and contracts; (ii) authorizing payments; (iii) recording procurement transactions and events; and (iv) the custody of assets?	Yes	Low
E.7. Is there a written auditable trail of procurement decisions attributable to individuals and committees?	Yes	Low

II General Ratings

Criterion	Risk
A. Organizational and Staff Capacity	Low
B. Information Management	Low
C. Procurement Practices	Low
D. Effectiveness	Low
E. Accountability Measures	Low
OVERALL RISK RATING	LOW

Procurement Assessment Questionnaire – Quang Nam WSDC

Risk Ratings	Extremely High	High	Average	Low
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I. Specific Assessment and Ratings:

Question	Answer/Finding	
A. ORGANIZATIONAL AND STAFF CAPACITY		
A.1. How many years experience does the head of the procurement department/unit have in a direct procurement role?	10 years	Low
A.2. How many staff in the procurement department/unit are:	11	Low
iv. Full Time?	11	
v. Part Time?	0	
vi. Seconded?	0	
A.3. Does the procurement staff have English language proficiency?	Yes	Low
A.4. Are the number and qualifications of the staff sufficient to undertake the additional procurement that will be required under the proposed project?	Yes	Low
A.5. Does the unit have adequate facilities, such as PCs, internet connections, photocopy facilities, printers, etc., to undertake the planned procurement?	Yes	Low
A.6. Does the agency have a procurement training program?	Yes	Low
A.7. Does the agency have a Procurement Committee that is independent from the head of the agency?	No	Average
A.8. Does the agency have a procurement department/unit, including a permanent office that performs the function of a Secretariat for the Procurement Unit, and which serves as the main support unit of the Procurement Committee??	No	Average
A.9. If yes, what type of procurement does it undertake?	International Competitive Bidding (ICB) NCB (National Competition Bidding) Competitive offer (Shopping) QCBS (Quality and Cost Based Selection) CQS (Consellor Qualification Standards) SSS (Single Source System) IC (Independent Consultant)	
A.10. At what level does the department/unit report (to the head of agency, deputy etc.)?	Director, Quang Nam WSDC	Low
A.11. Do the procurement positions in the agency have job descriptions, which outline specific roles, minimum technical requirements and career routes?	Yes	Low
A.12. Is there a procurement process manual for goods and works?	Yes, project specific manual	Average
A.13. If there is a manual, is it up to date	Yes	

Question	Answer/Finding	
and does it cover foreign-assisted projects?		
A.14. Is there a procurement process manual for consulting services?	Yes	
A.15. If there is a manual, is it up to date and does it cover foreign-assisted projects?	Yes	
A.16. Are there standard documents in use, such as Standard Procurement Documents/Forms, and have they been approved for use on ADB funded projects?	No	
A.17. Does the ToR follow a standard format such as background, tasks, inputs, objectives and outputs?	Yes	
A.18. Who drafts the procurement specifications?	PMU procurement staff	Low
A.19. Who approves the procurement specifications?	Quang Nam PPC	Low
A.20. Who drafts the bidding documents?	PMU with support from consultants	Low
A.21. Who manages the sale of the bidding documents?	PMU	Low
A.22. Who identifies the need for consulting services requirements?	Quang Nam PPC	Low
A.23. Who drafts the terms of reference (ToR)?	PMU with support from consultants	Low
A.24. Who prepares the request for proposals (RFPs)?	PMU with support from consultants	Low
B. INFORMATION MANAGEMENT		
B.1. Is there a referencing system for procurement files?	Yes	Low
B.2. Are there adequate resources allocated to record keeping infrastructure, which includes the record keeping system, space, equipment and personnel to administer the procurement records management functions within the agency?	Yes	Low
B.3. For what period are records kept?	20 years	Low
B.4. Are copies of bids or proposals retained with the evaluation?	Yes	Low
B.5. Are copies of the original advertisements retained with the pre-contract papers?	Yes	Low
B.6. Is there a single contract file with a copy of the contract and all subsequent contractual correspondence?	Yes	Low
B.7. Are copies of invoices included with the contract papers?	Yes	Low
C. PROCUREMENT PRACTICES		
Goods and Works		
C.1. Has the agency undertaken foreign-assisted procurement of goods or works recently (last 12 months, or last 36 months)? (If yes, please indicate the	Yes, projects has been financed by: World Bank: Quang Nam subproject for water supply to Phu Ninh, Thanh My, and Vinh Dien	Low

Question	Answer/Finding	
names of the development partner/s and the Project/s.)	Norway: Upgrade and Expansion of Hoi An Water Supply Plant Project Italy: Drainage and Sanitation Project	
C.2. If the above answer is yes, what were the major challenges?	Time consuming process	
C.3. Is there a systematic process to identify procurement requirements (for a period of one year or more)	Yes (18 months)	Low
C.4. Is there a minimum period for preparation of bids and if yes how long?	Yes, at least 1 month	Low
C.5. Are all queries from bidders replied to in writing?	Yes	
C.6. Does the bidding document state the date and time of bid opening?	Yes	Low
C.7. Is the opening of bids done in public?	Yes	Low
C.8. Can late bids be accepted?	No	
C.9. Can bids be rejected at bid opening?	No	
C.10. Are minutes of the bid opening taken?	Yes	Low
C.11. Who may have a copy of the minutes?	All bidders	
C.12. Are the minutes free of charge?	Yes	
C.13. Who undertakes the evaluation of bids (individual(s), permanent committee, ad-hoc committee)?	Ad-hoc bid council is set up by Quang Nam PPC	Low
C.14. What are the qualifications of the evaluators with respect to procurement and the goods and/or works under evaluation?	Professional experience, general capacity, and certificates	Low
C.15. Is the decision of the evaluators final or is the evaluation subject to additional approvals?	Need to be approved by Quang Nam PPC	Low
C.16. Using at least three real examples, how long does it normally take from the issuance of the invitation for bids up to contract effectiveness?	Design and construction subproject in Quang Nam for water supply of 3 towns: Phu Ninh, Thanh My, Vinh Dien in Quang Nam province (3.5 months) Provide materials and construction equipment for water plant and raw water pump station belonging to the upgrade and expansion of Hoi An Water Plant Project (1 month) Construction of upgrade and expansion of Hoi An Water Plant Project. (11 months)	Average
C.17. Are there processes in place for the collection and clearance of cargo through ports of entry?	No	High
C.18. Are there established goods receiving procedures?	No	High
C.19. Are all goods that are received recorded as assets or inventory in a register?	Yes	Low
C.20. Is the agency/procurement department familiar with letters of credit?	No	High

Question	Answer/Finding	
C.21. Does the procurement department register and track warranty and latent defects liability periods?	Yes	Low
Consulting Services		
C.22. Has the agency undertaken foreign-assisted procurement of consulting services recently (last 12 months, or last 36 months)? (If yes, please indicate the names of the development partner/s and the Project/s.)	Yes World Bank: Quang Nam subproject for water supply for Phu Ninh, Thanh My, Vinh Dien. Norway: Upgrade and Expansion of Hoi An Water Supply Plant Project Italy: Drainage and Sanitation Project	Low
C.23. If the above answer is yes, what were the major challenges?	Time consuming process	
C.24. Are assignments and requests for expressions of interest (EOIs) advertised?	Yes	Low
C.25. Is a consultants' selection committee formed with appropriate individuals, and what is its composition (if any)?	Technical, financial, institutional, and safeguard specialists (depending on the nature of each package)	Low
C.26. What criteria is used to evaluate EOIs?	Competence and experience	Low
C.27. Historically, what is the most common method used (QCBS, QBS, etc.) to select consultants?	QCBS	Low
C.28. Do firms have to pay for the RFP document?	No	Low
C.29. Does the proposal evaluation criteria follow a pre-determined structure and is it detailed in the RFP?	Yes	Low
C.30. Are pre-proposal visits and meetings arranged?	Yes	Low
C.31. Are minutes prepared and circulated after pre-proposal meetings?	Yes	
C.32. To whom are the minutes distributed?	All bidders	
C.33. Are all queries from consultants answered/addressed in writing?	Yes	Low
C.34. Are the technical and financial proposals required to be in separate envelopes?	Yes	Low
C.35. Are proposal securities required?	No	Low
C.36. Are technical proposals opened in public?	Yes	Low
C.37. Are minutes of the technical opening distributed?	Yes	
C.38. Do the financial proposals remain sealed until technical evaluation is completed?	Yes	Low
C.39. Who determines the final technical ranking and how?	Bid Council prepares evaluation, PPC make final decisions after no objection from donor	
C.40. Are the technical scores sent to all firms?	Yes	
C.41. Are the financial proposal opened in public?	Yes	Low
C.42. Are minutes of the financial opening	Yes	

Question	Answer/Finding	
distributed?		
C.43. How is the financial evaluation completed?	According to the rules stipulated in the RFP	Low
C.44. Are face to face contract negotiations held?	Yes	
C.45. How long after financial evaluation is negotiation held with the selected firm?	About 2 weeks	
C.46. What is the usual basis for negotiation?	Compliance with the RFP and elimination of deviations	
C.47. Are minutes of negotiation taken and signed?	Yes	
C.48. How long after negotiation is the contract signed?	Normally within 2 weeks	Low
C.49. Is there an evaluation system for measuring the outputs of consultants?	Yes	Low
Payments		
C.50. Are advance payments made?	Yes	Low
C.51. What is the standard period for payment included in contracts?	Advance payment and payments in stages/phases or the timeline	Low
C.52. On average, how long is it between receiving a firm's invoice and making payment?	Within 2 weeks	
C.53. When late payment is made, are the beneficiaries paid interest?	Yes	
D. EFFECTIVENESS		
D.1. Is contractual performance systematically monitored and reported?	Yes	Low
D.2. Does the agency monitor and track its contractual payment obligations?	Yes	Low
D.3. Is a complaints resolution mechanism described in national procurement documents?	Yes	Low
D.4. Is there a formal non-judicial mechanism for dealing with complaints?	Yes	Low
D.5. Are procurement decisions and disputes supported by written narratives such as minutes of evaluation, minutes of negotiation, notices of default/withheld payment?	Yes	Low
E. ACCOUNTABILITY MEASURES		
E.1. Is there a standard statement of ethics and are those involved in procurement required to formally commit to it?	Yes	Low
E.2. Are those involved with procurement required to declare any potential conflict of interest and remove themselves from the procurement process?	Yes	Low
E.3. Is the commencement of procurement dependent on external approvals (formal or de-facto) that are outside of the budgeting process?	Yes	High
E.4. Who approves procurement transactions, and do they have	Director, Quang Nam WSDC	Low

Question	Answer/Finding	
procurement experience and qualifications?		
E.5. Which of the following actions require approvals outside the procurement unit or the evaluation committee, as the case may be, and who grants the approval?		Low
g) Bidding document, invitation to pre-qualify or RFP	Director, Quang Nam WSDC	
h) Advertisement of an invitation for bids, pre-qualification or call for EOIs	Director, Quang Nam WSDC	
i) Evaluation reports	Director, Quang Nam WSDC	
j) Notice of award	Director, Quang Nam WSDC	
k) Invitation to consultants to negotiate	Director, Quang Nam WSDC	
l) Contracts	Director, Quang Nam WSDC	
E.6. Is the same official responsible for: (i) authorizing procurement transactions, procurement invitations, documents, evaluations and contracts; (ii) authorizing payments; (iii) recording procurement transactions and events; and (iv) the custody of assets?	Yes	Low
E.7. Is there a written auditable trail of procurement decisions attributable to individuals and committees?	Yes	Low

II General Ratings

Criterion	Risk
A. Organizational and Staff Capacity	Low
B. Information Management	Low
C. Procurement Practices	Low
D. Effectiveness	Low
E. Accountability Measures	Low
OVERALL RISK RATING	LOW