PROJECT PREPARATORY TECHNICAL ASSISTANCE

A. Justification

1. The project preparatory technical assistance (PPTA) is necessary to define the scope of the project and ensure project's early startup. The objectives of the PPTA are to: (i) design a project suitable for Asian Development Bank (ADB) financing by identifying appropriate project components and financial modalities to achieve the desired project impact; (ii) design the project in potential collaboration with Japan International Cooperation Agency and other donors to leverage its effectiveness and impact; (iii) conduct detailed assessment of technical, economic, financial, procurement and governance, safeguards, poverty reduction, social inclusion and gender mainstreaming; (iv) provide trainings to the executing and implementing agencies and activities with civil society organizations; (v) conduct stakeholder analysis and consultations to achieve project outcomes; and (vi) complete preliminary and detailed engineering designs for key components based on the feasibility study reports to ensure early startup of the project.

B. Major Outputs and Activities

2. The PPTA will have two phases of activities and collectively produce the outputs and activities in Table A3.1. The first phase will cover a detailed assessment of the technical, financial, economic, safeguards, social and institutional aspects for the project. The second phase will cover a preliminary and detailed engineering design of the key components.[1]

Table A3.1: Summary of Major Outputs and Activities

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Project design and due diligence			
Safeguards, social development and project administration orientation trainings	1 January 2018	Inception report	1 May 2017
		Interim report	1 October 2017
Sludge management training	1 March 2018	Draft project EIA, resettlement plans, FMA, GAP, MBDs, P-RAMP,	1 March 2018
Public-private partnership training	1 October 2017	SCSPP, SDAP, and Final report	31 August 2018
Preliminary and detailed engineering design			
		Preliminary engineering design report	31 December 2018
		Detailed engineering design drawing	30 June 2019
		Bidding documents, Final project EIA, Final resettlement plans	30 September 2019

EIA = environmental impact assessment, FMA = financial management assessment, GAP = gender action plan, MBDs = master bidding documents, P-RAMP = project procurement risk assessment and management plan, SCSPP = stakeholder communication strategy and participation plan, SDAP = social development action plan.
Source: Asian Development Bank.

C. Cost Estimate and Proposed Financing Arrangement

3. The PPTA is estimated to cost $5,560,000 equivalent, of which $5,000,000 will be financed on a grant basis by the Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility administered by ADB (Table A3.2).[2] The government will provide in-kind contributions for local support staff and local data and information. The proposed activities and expense items are in line with the trust fund agreements. TA will be disbursed in line with TA disbursement handbook, 2010 as amended from time to time.

[1] Based on the final project scope, a detailed composition of the second phase consulting service will be determined.
[2] Financing partners: the Rockefeller Foundation and the governments of Switzerland, the United Kingdom, and the United States.

Table A3.2: Cost Estimates and Financing Plan[a]

($'000)

Item				Total Cost
Asian Development Bank[b]				
1.	Consultants			
	a.	Remuneration and per diem		
		i.	International consultants (93 person-months)	2,279.4
		ii.	National consultants (283 person-months)	1,338.0
	b.	International and local travel		271.2
	c.	Reports and communications (translation)		65.0
2.	Equipment[c]			10.0
3.	Workshops, training, seminars, and conferences[d]			35.0
4.	Local Transportation			70.0
5.	Survey and Data Collection			540.0
6.	Miscellaneous administration and support costs			54.0
7.	Representative for contract negotiations			5.0
8.	Contingencies			332.4
Total				**5,000.0**

[a] The estimated value of the government in-kind contribution is estimated at about 10% of the total TA cost.
[b] Financed by the Urban Climate Change Resilience Trust Fund under the Urban Financing Partnership Facility; administered by ADB on a front-loaded basis.
[c] Equipment. Turn over to the implementing agency in compliance to the ADB Disbursement Handbook.

Type	Quantity	Cost
Computers	4	$6,000
Printer and photocopying machine	1	$4,000

[d] Workshops, training and seminars. Procure as consulting service activities or direct recruitment of events organizers

Purpose	Venue
Inception, interim, draft final workshops, preliminary/detail engineering design, safeguards, social aspect, procurement, disbursement, Sludge management, public-private partnership	Ho Chi Minh City

Source: Asian Development Bank estimates

D. Consulting Services

4. In accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), a consulting firm will be engaged, using the quality- and cost-based selection method with a quality:cost ratio of 90:10 using the full technical proposals. The outline terms of reference of the first phase PPTA consultants are described in paras. 5 to 15.

Table A3.3: Summary of Consulting Services Requirement

International Name of Positions	Person-months	National Name of Positions	Person-months
Project design and due diligence (first phase PPTA)			
Chief Engineer/Team Leader	8.0		
Civil engineer	3.0	Civil engineer/Deputy Team Leader	8.0
Wastewater and sanitation engineer	3.0	Wastewater and sanitation engineer	4.0
Drainage and hydrological engineer	3.0	Drainage and hydrological engineer	4.0
Climate change specialist	2.0	Climate change specialist	3.0
Financial specialist	2.0	Financial specialist	3.0
Economist	2.0	Economist	3.0
Environment specialist	3.0	Environment specialist	4.0
Resettlement,	3.0	Resettlement	4.0
Social development and gender specialist	3.0	Social development and gender specialist	4.0
Institutional development and procurement specialist	3.0	Procurement specialist	3.0
		Institutional development specialist	3.0
Preliminary and detailed engineering design (second phase PPTA)			
TBD	58.0	TBD	240.0

Note: Single source selection may be considered for the 2nd phase of the PPTA, subject to performance and economy.
Source: Asian Development Bank estimates.

5. **Chief engineer/team leader** (international, 8 person-months). The specialist will have very strong experience in urban wastewater and drainage infrastructures design and construction. S/he will be responsible for all outputs with the quality acceptable for ADB. S/he will lead a policy dialogue on a medium-term wastewater and drainage sector investment plan for HCMC to prioritize the investment, and effective use of the funds for city's sector development. S/he will lead the team to identify technically and financially appropriate location and engineering specifications of sewage networks, interceptors, wastewater treatment plants and other infrastructures under the project. Technical design should be climate and earthquake proof. Alternative analysis should consider economic, social and safeguards aspects to minimize negative impacts while enhance benefits. S/he will identify capacity development needs based on the institutional assessments on governance, project-based public finance, and procurement and anticorruption policies. S/he will conduct and coordinate required trainings, and act as a focal person to ensure smooth transition to the second phase PPTA team

6. **Civil engineers** (international, 3 person-months; national, 8 person-months). The specialists will lead in designing separate/combined sewer pipe networks and interceptors. Work with the other team members to ensure the whole sewage and drainage system will be fully functional and construction methods and approaches must align with the local condition, practice, experience and capacity and climate resilience including enhanced storm surge and saline water intrusion due to the future sea level rise. Together with the wastewater and sanitation engineers, the specialists will identify needs of operational and maintenance of the constructed assets. The national civil engineer will serve as a deputy team leader, supporting the project general manager and supervise the other national consultants.

7. **Wastewater and sanitation engineers** (international, 3 person-months and national, 4 person-months). The specialists will lead in designing wastewater treatment plants. Work with the other team members to analyze appropriate size and capacity of the separate/combined sewer pipe networks, interceptors and other necessary infrastructures based on the detailed demand-supply assessment. Selection of the wastewater treatment technology must consider performance, capital and operation and maintenance costs and capacities of operational entities. The specialists will suggest the way to strengthen access to septage management of household septic tanks by developing a desludge and collection scheme.

8. **Drainage and hydrological engineers** (international, 3 person-months and national, 4 person-months). The specialists will collect necessary information on drainage and run the proven urban storm water run-off model to analyze. Closely working with other team members, they will design appropriate alignment and capacity of drainage networks of the project area.

9. **Climate change specialist** (international, 2 person-months and national, 3 person-months). The specialists will collect and analyze available climate projection model results in HCMC and translate them into climate change scenarios for the project to consider. They will work closely with the other engineers in the project team for appropriate designs.

10. **Financial specialists** (international, 2 person-months and national, 3 person-months). The specialists will calculate detailed cost estimates, and will conduct financial viability analysis based on the projected wastewater management fee collection. They conduct public financial management assessment for the executing and implementing agency and advice appropriate measures to ensure financial sustainability of the project facilities in medium- and long-term.

11. **Economists** (international, 2 person-months and national, 3 person-months). The economists will conduct cost-benefit analysis to calculate economic benefits of the project.

Working with social development and gender specialist, conduct a socio-economic survey in the project area to identify economic benefits of before and after the projects. They analyze economic cost and benefit of climate proofing infrastructures to justify the project.

12. **Environment specialists** (international, 3.0 person-months and national, 4 person-months). The specialists will conduct environmental impact assessment for the project and prepare necessary documentation for the ADB project approval. They will also collaborate with climate change specialists to improve Viet Nam's domestic environment related documents.

13. **Resettlement specialists** (international, 3.0 person-months and national, 4 person-months). The specialists will conduct detailed information collection on involuntary resettlement. Working with social development and gender specialists, they will understand the local socioeconomic situation and identify appropriate support and mitigation measures complying with the Viet Nam's national regulation and ADB's safeguards policy statement (2009).

14. **Social development and gender specialists** (international, 3.0 person-months and national, 4 person-months). The specialists will conduct a detailed socioeconomic analysis of the project areas and establish a solid basis of the project's benefit especially for urban poor, vulnerable people and gender aspects. They will ensure the project design to be pro-poor and gender main streaming by conducting appropriate assessment and propose effective measures.

15. **Institutional development and procurement specialists** (international institutional development and procurement, 3 person-months, national institutional development, 3 person-months, national procurement, 3 person-months). The specialists will: (i) assess procurement capacity, governance and anti-corruption policies and compliance, (ii) analyze institutional set up and propose appropriate mechanisms to promote household level septage management; (iii) undertake project procurement risk assessment, including procurement capacity assessment of EA and IAs; and (iv) prepare master bidding documents for each type of contract to be procured under the project including specifications.

E. Implementation Arrangements

16. The HCMC People's committee will be the executing agency. In-kind contributions from the Steering Center of the Urban Flood Control Program in HCMC, the implementing agency, will include: (i) local support staff and (ii) local data and information, and establish a project management unit for the TA. The proposed TA implementation schedule is in Table A3.4.

Table A3.4: Proposed Technical Assistance Processing and Implementation Schedule

Major Milestones	Expected Completion Date
Project design and due diligence	
Commencement of the first phase project preparatory technical assistance	1 March 2017
Inception report submission	1 June 2017
Interim report submission	1 December 2017
Draft final report submission	1 June 2018
Final tripartite meeting (loan fact-finding mission)	1 September 2018
Completion of the first phase project preparatory technical assistance	31 December 2018
Preliminary and detailed engineering design	
Commencement of the second phase project preparatory technical assistance	1 July 2018
Preliminary engineering design report submission	31 December 2018
Detailed engineering design drawing submission	30 June 2019
Completion of the second phase project preparatory technical assistance	31 December 2019

Source: Asian Development Bank estimates.