

Project Administration Manual

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Loan Number(:{LXXXX}
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Kingdom of Cambodia: Urban Water Supply Project

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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
ADF	=	Asian Development Fund
CQS	=	consultant qualification selection
DDR	=	due diligence report
DMF	=	design and monitoring framework
DPWS	=	Department of Potable Water Supply
EMP	=	environmental management plan
GAP	=	gender action plan
ICB	=	international competitive bidding
IEE	=	initial environmental examination
JICA	=	Japan International Cooperation Agency
LAR	=	land acquisition and resettlement
MEF	=	Ministry of Economy and Finance
MIH	=	Ministry of Industry and Handicraft
MPWT	=	Ministry of Public Works and Transport
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
NRW	=	nonrevenue water
O&M	=	operation and maintenance
PAI	=	project administration instructions
PAM	=	project administration manual
PIA	=	project implementation assistance
PIU	=	project implementation unit
PMU	=	project management unit
PPWSA	=	Phnom Penh Water Supply Authority
PWW	=	public waterworks
QCBS	=	quality- and cost based selection
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SRWSA	=	Siem Reap Water Supply Authority

I. PROJECT DESCRIPTION

A. Rationale

1. Since its full reintegration into the international development community after elections in 1993, Cambodia has continued to rebuild and recover from a conflict-affected past. Investment in the urban water supply subsector since 1993 has centered primarily on Phnom Penh, the capital and largest city, while infrastructure and institutional development of other public waterworks (PWWs) across the country have suffered from inadequate levels of investment. These PWWs have relied mostly on official development assistance from numerous bilateral and multilateral development partners for financial support, including ADB. Structural and organizational weaknesses in the water sector include a lack of corporate status for PWWs, insufficient autonomy and accountability, and a high degree of control by the central government. The lack of investment has meant that PWWs operate unsustainably and deliver substandard services. Rapid urbanization has exacerbated the problem, and many urban residents lack access to adequate and safe water supply and sanitation services. Typical problems include old piping, inadequate system coverage, poor operation and maintenance (O&M), intermittent supply of water, water quality issues, and high levels of nonrevenue water (NRW).¹ Tariff structures vary among the PWWs, and are rarely adequate to cover the true costs of providing the water service. This situation is in stark contrast to the strong management, corporatization, staff development, and efficiency that have allowed Phnom Penh Water Supply Authority (PPWSA) to flourish over the same period, with support from ADB and other development partners. Today, PPWSA is one of the most efficient water utilities in Asia.

2. Cambodia's current population is estimated to be 14.7 million, spread through 24 provinces and 26 cities and district towns.² About 20% of the country's people live in urban areas. Urbanization is far outstripping rural population growth, and the urban population is expected to reach 30% of the national total, by 2030. Cambodia's 2015 Millennium Development Goals target to provide 80% of people living in urban areas with access to improved water sources and 74% with access to improved sanitation have been achieved, with results of 88% and 89% respectively.³ This apparent success has been extremely uneven across the country, however, and has had little impact on access to reliable, continuous, and safe piped water supply to the urban households served by the PWWs. In 2009, more than 78% of the residents of Phnom Penh had access to piped water supply, but the national average was only 42%.⁴ Access in urban areas outside the capital ranged from about 12% in Siem Reap to about 64% in Pursat. In 2013, the level of NRW was 6% in Phnom Penh, but ranged from 10% to 40% in the provincial towns—and the reliability of the figures reported from outside of the capital is suspect and the level of water supply leaked, wasted, and unpaid for in these areas could be higher. These PWWs need to follow the example set by PPWSA, since 1993, by (i) increasing water supply coverage, (ii) improving water quality, and (iii) reducing the current high levels of NRW.

3. The Department of Potable Water Supply (DPWS) under the MIH⁵ is responsible for the coordination, policy, and regulation of urban water supply in Cambodia. Of the 12 public water utilities in the country, which supply water to urban centers, two have been transformed into

¹ Nonrevenue water is defined as the difference between the amount of water put into the distribution system and the amount of water billed to consumers.

² Royal Government of Cambodia. 2013. *Cambodia Intercensal Population Survey 2013*. Phnom Penh.

³ World Health Organization and United Nations Children's Fund. 2014. Joint Monitoring Programme for Water Supply and Sanitation (1980–2012).

⁴ National piped water supply coverage in 2014 is estimated at about 50%, but no formal data are available on this.

⁵ This was the Ministry of Industry, Mines, and Energy until 2014.

autonomous water authorities—PPWSA in 1996, and the Siem Reap Water Supply Authority (SRWSA) in 2007. This improved the financial and operational performance of both. The MIH controls the remaining 10 PWWs through its provincial line agencies, but aims to transform these to autonomous water authorities by 2018. The DPWS licenses private water supply operators and regulates all public and private operators' tariffs, and it is receiving assistance for these activities from the Japan International Cooperation Agency (JICA) and the World Bank.

4. Taking into consideration the government's public debt management strategy, to promote financial autonomy of PWWs, and ensure sustainable economic growth, the Ministry of Economy and Finance sought ADB financing for the Urban Water Supply Project in February 2012. ADB's country operations business plan includes an Asian Development Fund loan for the project for 2014 approval.⁶

5. ADB's past support in provincial urban water supply included the Provincial Towns Improvement Project.⁷ It was completed in 2006 and provided water treatment plants and distribution systems in six towns. In 2009, ADB completed a regional TA, the Mekong Water Supply and Sanitation Project in Cambodia, the Lao People's Democratic Republic, and Viet Nam.⁸ The TA prepared feasibility studies for water supply and sanitation in the towns of Kratie and Stung Treng, but no ADB financing followed due to differences between ADB and the government on sector and tariff reform. To meet the urgent need in Kratie, a private sector company invested in the water supply system. This was not the case at Stung Treng, where a suitable private sector provider was not available. Identified as an urgent subproject in 2009, Stung Treng's importance has been increasing, with a new national highway under construction connecting it to Siem Reap and onwards to Thailand, in addition to its established links to the Lao People's Democratic Republic.

6. After limited involvement since 2006, ADB is seeking to reengage in and provide long-term support for the country's urban water supply sector, starting with this project. In line with the government's strategy, the aim of this assistance will be to raise the performance of the PWWs in the rest of the country to the standard achieved by PPWSA in Phnom Penh. The project will address the problems identified by the MIH in its priorities and strategies for 2013–2018. These are (i) inadequate legal and regulatory frameworks; (ii) the continued dependence of the country's PWWs, except for PPWSA and SRWSA, on financial support from the government; (iii) old production and distribution systems and inadequate human resources; (iv) a lack of financial resources for rehabilitating and developing the sector; and (v) the overall inadequate water supply coverage in the country's urban areas.

7. The project will provide additional new and rehabilitated water supply infrastructure and extend system coverage to expand access to safe water in nine towns.⁹ The MIH selected eight PWWs and SRWSA for support under the project. The project aims to (i) address the most urgent needs of the urban water sector by improving and expanding services; and (ii) prepare for sector reform with the goals of providing improved 24-hour service coverage and better water quality, as well as making the PWWs more autonomous and therefore more financially sustainable. The

⁶ ADB. 2014. *Country Operations Business Plan, Cambodia, 2014–2016*. Manila.

⁷ ADB. 2003. *Report and Recommendation of the President to the Board of Directors: Proposed Supplementary Loan to the Kingdom of Cambodia for the Provincial Towns Improvement Project*. Manila. The project covered the towns of Battambang, Pursat, Kampong Thom, Kampong Cham, Svay Rieng, and Kampot.

⁸ ADB. 2008. *Technical Assistance for Preparing the Mekong Water Supply and Sanitation Project*. Manila.

⁹ The towns where these plants will be rehabilitated and their populations in 2012 are Kampong Cham (64,000), Kampong Thom (46,000), Kampot (48,000), Pursat (51,000), Siem Reap (141,000), Sihanoukville (71,000), Stoung (51,000), Stung Treng (34,000), and Svay Rieng (45,000).

project will also provide piped water supply to an additional 58,000 residents through (i) a new water supply system in Stung Treng, (ii) a new distribution zone in Siem Reap, and (iii) system expansion in Kampong Cham and Svay Rieng. In addition, the project will rehabilitate existing water treatment plants in seven towns. The project interventions will replicate initiatives that made PPWSA successful and build on PPWSA experience.¹⁰ It will also incorporate lessons from previous ADB projects.¹¹ The project will help the PWWs reduce real NRW levels to below 15% by using improved material and construction practices in its works to complement ongoing NRW reduction initiatives by the service providers and other development partners.¹²

8. The project is aligned with (i) phase 3 of the government's rectangular strategy for growth, employment, equity, and efficiency;¹³ (ii) Cambodia's national strategic development plan for 2014–2018;¹⁴ and (iii) the action plan of the MIH to facilitate private sector partnerships, strengthen the management of publicly owned waterworks, and integrate urban water supply with urban environmental management. The project supports ADB's water and sanitation sector assessment, strategy, and road map for Cambodia; as well as ADB's Water Operational Plan, 2011–2020¹⁵ to improve the efficiency of water services. It also aligns with the three pillars of ADB's country partnership strategy for Cambodia¹⁶ which call for (i) strengthening rural, urban, and regional linkages through investments in water supply infrastructure and services; (ii) human resource development by improving urban water supply management capacity; and (iii) supporting public sector management by helping to decentralize and expand public financial management capacity through the MIH's plan for financial autonomy of the PWWs by 2018.

9. Comprehensive capacity development is currently being implemented under JICA-assistance at some of the project's PWWs, which will also benefit the project. It is focusing on water utility management and finance. JICA is also assisting the MIH at the national policy level in developing a water law. The World Bank is providing support on the licensing of private water operators and related regulation of these. Under new leadership in 2014, the MIH completed a comprehensive assessment of each of its public water utilities and is using the findings to develop short- and medium-term action plans. In particular, the MIH will encourage the PWWs to provide efficient services and affordable tariffs with full cost recovery and savings for future investment to gradually reduce their reliance on external support.

10. The project does not include urban sanitation improvements because responsibility for urban sanitation and drainage systems lies with the Ministry of Public Works and Transport (MPWT), not the MIH, and the Ministry of Economy and Finance requested that the project have a single executing agency. In addition, ADB's experience from previous project loans¹⁷ that required working with both the MPWT and MIH was not entirely successful. However, urban sanitation will

¹⁰ The factors that have contributed to PPWSA's success included (i) strong and continuous leadership, (ii) financial autonomy, (iii) continuous staff development and performance-based bonuses, (iv) customer-orientated service, (v) high-quality infrastructure and equipment, and (vi) a strong focus on NRW reduction and energy efficiency.

¹¹ Among lessons learned are the need to (i) promote high quality design for water treatment plants to allow flexible operation, (ii) procure good-quality equipment, and (iii) select equipment that can be easily repaired or replaced.

¹² Development Coordination (accessible from the list of linked documents in Appendix 2).

¹³ Royal Government of Cambodia. 2013. *Rectangular Strategy for Growth, Employment, Equity, and Efficiency – Phase III*. Phnom Penh.

¹⁴ Key actions for water supply in the national strategic development plan are (i) the development of a legal framework for urban water supply; (ii) promotion of decentralization and deconcentration; (iii) the transfer of full autonomy for service delivery to all provincial waterworks; (iv) an increase in urban water sector financing; (v) improvement of sector performance and public access to safe, affordable, and sustainable water supplies; and (vi) improvement in the protection of water sources and enforcement of regulations.

¹⁵ ADB. 2011. *Water Operational Plan, 2011–2020*. Manila.

¹⁶ ADB. 2014. *Country Partnership Strategy: Cambodia, 2014–2018*. Manila.

¹⁷ ADB. 2008. *Completion Report: Provincial Towns Improvement Project in Cambodia*. Manila.

be addressed as a subcomponent of ADB's proposed urban development projects with the MPWT. ADB is encouraging the idea of a single agency for urban water supply and sanitation in Cambodia, and will continue with policy dialogue during project implementation. The proposed stand-alone capacity development TA will include an investigation of effective ways to combine urban water supply and urban sanitation in preparation for possible inclusion by ADB in a sector loan planned for 2017.

B. Impact and Outcome

11. The project's impact will be expanded access to sustainable and safe water supply services for the urban population in Cambodia. This will contribute to the government's 2025 target of 100% coverage. The outcome will be improved water supply infrastructure and service provision in nine towns. By 2019, the project will provide a total of about 438 kilometers (km) of pipelines and about 9,600 new household connections in the towns of Siem Reap and Stung Treng. It will also improve water supply facilities in the remaining seven project towns, about 2,000 new household connections in Kampong Cham and Svay Rieng.

C. Outputs

12. **Output 1: Existing water supply systems improved in seven towns.** The project will improve operational performance of water supply systems in seven towns and ensure that the facilities operate at optimal level before coverage is expanded under a proposed subsequent sector loan. The improvements will comprise (i) new deep wells at Kampong Cham; (ii) rehabilitated water treatment plants in seven towns; (iii) rehabilitated or new clear water storage tanks in three towns; (iv) rehabilitated pumping equipment in four towns; (v) augmented and/or replaced water mains in four towns; and (vi) subsidized household connections along new pipeline routes,¹⁸ including provision for 2,000 new connections for Kampong Cham and Svay Rieng. New laboratory equipment will be provided in five towns to improve monitoring and water quality.

13. **Output 2: New water supply system provided for Stung Treng.** The project will provide a new water supply system for the town Stung Treng that will include (i) a surface water intake; (ii) a water treatment plant that will have a capacity of about 7,950 cubic meters per day and be equipped with a laboratory; (iii) about 354 km of water transmission and distribution pipelines; and (iv) provision for 4,600 new household connections that will be subsidized for poor households.

14. **Output 3: Water supply coverage increased in Siem Reap.** Water supply in Siem Reap will be expanded through a new zone to distribute water from new SRWSA water treatment plants. Subcomponents will include (i) about 6.5 km of new transmission mains; (ii) about 35 km of new distribution pipelines; and (iii) provision for 5,000 household connections to be subsidized for poor households. Water for the project will be supplied by a new 17,000 cubic meters per day (m³/day) treatment plant being developed under parallel financing by the Agence Française de Développement and planned for 2017. A JICA-financed project, sourcing water from the Tonle Sap lake, is planned for 2019 and will provide an additional 60,000 m³/day to Siem Reap to support the town's longer term needs.

¹⁸ Connections for the poor will be subsidized by 30%–100%, based on household income and ability to pay at the time of connection. A subsidy policy similar to that of PPWSA will be used, rather than historical poverty mapping.

15. **Output 4: Project implementation supported and operation and maintenance developed.** The project will include project implementation support services for the project management and implementation units in detailed engineering design and construction supervision. It will also support other project functions, including safeguards implementation and monitoring, gender and community development, accounting and financial management, bidding and procurement, and disbursement. The project will enhance the skills of and provide on-the-job training for the MIH and PWWs staff in project management and design and implementation of urban water supply projects and O&M.

16. **Proposed Technical Assistance.** ADB is planning a stand-alone capacity development TA (para. 2). The TA would seek to build institutional capacity at the MIH, strengthen sector regulation, and improve tariff reform. The scope of the TA will be developed based on the project needs, MIH's ongoing sector reforms, and coordination with JICA's ongoing capacity development program for the PWWs.

17. **Special features of the Project.** The project design includes (i) its planned support for the MIH's recent initiative to accelerate sector reform and improve the financial and operational performance of the PWWs, which aims to increase financial autonomy for all PWWs by 2018; (ii) its use of the experience of PPWSA to enhance management and operational efficiency at other waterworks and to improve service delivery and NRW management; (iii) its plan to optimize the performance of existing facilities through targeted small investments, thereby paving the way for further investment to increase coverage and quality of services; and (iv) its intent to implement a subsidized water connection policy similar to that used by PPWSA at all PWWs under the project to help poorer households to connect.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2014			2015				Responsible Party
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Advance contracting actions		X	X	X	X	X	X	
Retroactive financing actions (none)								
Establish project implementation arrangements	X							MIH/PMU
ADB Board approval			X					ADB
Loan signing				X				ADB and MIH
Government legal opinion provided				X				MIH
Government budget inclusion				X				MIH
Loan effectiveness						X		ADB and MIH

ADB = Asian Development Bank, MIH = Ministry of Industry and Handicraft, PMU = project management unit.

B. Project Readiness Filters

Key Project Preparation Elements	Stage of Project Preparation					Current Status (28 Oct 2014)
	Identification/ Preparation	Loan Fact-Finding December and March 2013	Follow-up Loan Fact-Finding (May 2014) And Follow-up communications (Aug & Sep 2014)	Negotiations (27-28 Oct 2014)	Effectiveness (Mar 2015)	
Governance risk plans, including a Complaints Handling Mechanism	Drafted completed in Draft Final Report (PAM)	Discussed.	Discussed and finalized.	Completed and agreed. A Project Staff has been assigned as focal point person		<ul style="list-style-type: none"> • Attached to LFF MOU.
Procurement Capacity Assessment (PCA) of executing agencies (EAs) and implementing agencies (IAs)	Included in Draft Final Report	Final draft discussed and finalized.			Start-up actions implemented	<ul style="list-style-type: none"> • PCA completed • General Procurement Assessment completed • Includes EA PCA.
Advance Actions (AA) for 1st year Bidding Documents (BDs) for goods and works		MOU between DP and RG includes list of items, timetable and responsibilities for implementation of AA		BD No objection obtained by the DP and issued.	Ready for signing (notably for goods)	<ul style="list-style-type: none"> • Bidding documents for procurement of goods (vehicles).
Advance Actions for consultants	Outline Terms of Reference (TORs) for project implementation assistance consultants drafted and part of Draft Final Report (PAM). TORs for project implementation assistance (PIA) consultants to be drafted by an individual consultant engaged separately	Detailed TORs discussed and composition finalized.	Detailed TORs reviewed finalized.	Request for Expressions of Interest advertised. Shortlist evaluation completed.	1. Technical and financial proposals evaluated. 2. Contract negotiations done. 3. Contracts ready for signing	<ul style="list-style-type: none"> • Draft Terms of Reference for PIA consultants included in the draft PAM to be used as the basis for commencement of consultants recruitment.

Key Project Preparation Elements	Stage of Project Preparation					Current Status (28 Oct 2014)
	Identification/ Preparation	Loan Fact-Finding December and March 2013	Follow-up Loan Fact-Finding (May 2014) And Follow-up communications (Aug & Sep 2014)	Negotiations (27-28 Oct 2014)	Effectiveness (Mar 2015)	
	from PPTA team.					
Financial Management Capacity Assessment of EAs/IAs	Drafted completed in Draft Final Report (PAM)	FMCA reviewed and discussed.	FMCA discussed and finalized.	Start-up actions initiated	Start-up actions implemented, including FM training within 2 months(subject to TA savings for start-up consultant and/or available ADB training at CARM).	<ul style="list-style-type: none"> FMCA completed.
Auditing arrangements including TOR	Drafted completed in Draft Final Report (PAM)	Audit arrangements reviewed, discussed and agreed to with EA.	Audit arrangements confirmed with EA.	Confirmed.		Draft included in the PAM.
Environment assessments and plans, social assessment and plans, including Indigenous People and Gender assessments and plans (where applicable)	Drafted completed and discussed in Draft Final Report (PAM)	Environment and social assessments plans reviewed, refined, discussed and agreed. Safeguard drafts will be disclosed once endorsement / approval is received.	IEEs/DDR's being finalized for formal endorsement by government IEEs endorsed by Government.	Approved (but updated during implementation following detailed design and clearance from MOE). For confirmation with MIH.	Action plans initiated and ongoing (n/a).	<ul style="list-style-type: none"> IEEs completed for (i) Kampong Cham, (ii) Kampong Thom, (iii) Pursat, (iv) Siem Reap, (v) Stung Treng, and (vi) Svay Rieng. DDR's completed for Kampot, Sihanoukville and Stoung. Endorsed by the EA and disclosed on the ADB website
Implementation of Resettlement Plan (at least for 1st year) with attention to: Sufficient budget for compensation and income	One RP prepared and upgraded to Due Diligence Reports (DDR's) and reviewed with EA/PIU.	Resettlement plan reviewed and refined with the EA (IRC/MEF) For confirmation with MIH.	DDR's with MIH. <i>Draft DDR's to be uploaded to ADB website following endorsement/ approval from MIH.</i>		Start implementation (not applicable for project): Recruiting a quality assurance specialist (resettlement) -	<ul style="list-style-type: none"> Nine DDR's endorsed by the EA and disclosed on the ADB website. Category C, no RPs.

Key Project Preparation Elements	Stage of Project Preparation					Current Status (28 Oct 2014)
	Identification/ Preparation	Loan Fact-Finding December and March 2013	Follow-up Loan Fact-Finding (May 2014) And Follow-up communications (Aug & Sep 2014)	Negotiations (27-28 Oct 2014)	Effectiveness (Mar 2015)	
restoration Coordination with IRC and EA Resettlement Units. Updating of Resettlement Plan					within 3 months) Conducting detailed measurement survey within 6 months Conducting replacement cost study within 2 months	
Identification of Project Director and EA/IA project management team to be responsible for project implementation;	MIH to identify and assign staff to lead project preparation. Implementation arrangements (and TOR) defined in Draft Final Report (PAM)	PMU compositions reviewed, refined, discussed and agreed to the TORs and staffing requirements (including salary supplements with MEF).	PMU composition confirmed.	Issuance of formal appointment for project management and implementation teams.		<ul style="list-style-type: none"> • Composition of PMU for Prakas confirmed with MIH. • At loan negotiations staff assignments included in draft Prakas, which will be finalized by 10 November 2014.
Identification of staff at provincial, district and commune levels	MIH to identify and assign staff to lead project preparation. Implementation arrangements (and TOR) defined in Draft Final Report (PAM)	PIUs compositions reviewed, refined, discussed and agreed to the TORs and staffing requirements (including salary supplements with MEF).	PIUs compositions confirmed.	Issuance of formal appointment for project management and implementation teams.		<ul style="list-style-type: none"> • Composition of PIU confirmed with MIH. • At loan negotiations staff assignments included in draft Prakas, which will be finalized by 10 November 2014.
Budget & funding from DP and RGC for the 1 st year of project implementation	Needs defined and budget proposed in Draft final report.	Reviewed, refined, discussed and agreed.	Reviewed, refined, discussed and agreed.	Confirmed.	Available	Discussed with MIH and MEF.
M&E baselines	To be defined in the DMF as part of the Draft final report.	Baselines and indicators reviewed, refined, discussed	Baselines and indicators confirmed.	Confirmed		DMF finalized.

Key Project Preparation Elements	Stage of Project Preparation					Current Status (28 Oct 2014)
	Identification/ Preparation	Loan Fact-Finding December and March 2013	Follow-up Loan Fact-Finding (May 2014) And Follow-up communications (Aug & Sep 2014)	Negotiations (27-28 Oct 2014)	Effectiveness (Mar 2015)	
		and agreed.				

Source: Asian Development Bank 28 October 2014.

[illegible]

18. At the start of project implementation, the project management unit (PMU) and project implementation assistance (PIA) consultants will (i) update the initial environment examinations, resettlement plan and due diligence reports (IEEs and due diligence reports [DDRs]) and submit to ADB for approval; (ii) prepare the applicable environmental report for submission to the Inter-Ministerial Resettlement Committee (IRC), Ministry of Environment (MOE) for review and approval; (iii) clear potential unexploded ordnance (UXO) remains on site; and (iv) acquire necessary land before subproject bids are tendered. The PIA consultants will provide project technical, safeguards, accounting and management assistance on a daily basis as well as support the project implementation units (PIU) with project implementation.

19. The PMU and PIA consultants will further assess the readiness of each concerned province to implement the project. In this regard and in compliance with the Cambodian Procurement Manual (updated May 2012) for all external financed projects/programs in Cambodia, provincial governments and PWWs might be required to undertake the following actions prior to the start of project implementation: (i) establish the PIUs, with qualified, competent staff suitably trained in project management, project accounting, ADB procedures, community development, computer and English language; and (ii) formulate and implement a detailed plan to ensure that the PIU has the capacity to manage, operate and maintain the proposed water supply system, including appropriate staffing, training, technical and management support.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

20. The project is scheduled for implementation over 60 months from January 2015 to December 2019. MIH will be the Executing Agency and will prepare and implement project activities. PMUs will be established in (i) DPWS and at SRWSA, with full-time staff to execute and manage the Project. An English-speaking project coordinator will be assigned to the PMU. PIUs will be established in each of the eight PWWs and SRWSA, and will be responsible for daily and supervision of subproject implementation. The EA will recruit PIA Consultants to assist the PMU and PIUs. The table below includes the implementation arrangements. Procurement of goods, works and related services and recruitment of consulting services will be undertaken in accordance with ADB's Procurement Guidelines (March 2013, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Withdrawal applications will be prepared by the PMU (DPWS) and approved by the EA and the Ministry of Economy and Finance (MEF). SRWSA will prepare withdrawal applications to be approved by MEF.

Implementation Arrangements

Aspects	Arrangements
Implementation period	January 2015–December 2019
Estimated completion date	31 December 2019
Management	
(i) Executing agency	MIH
(ii) Key implementing agencies	The PMU will be the DPWS - Project Director, Project Manager, Accountant, Technical Officer (3), Procurement Officer (2), Administration Officer, Social and Environmental Safeguards Officer (2), Cashier. Four drivers to be engaged as contract staff under the project costs.
(iii) Implementation unit	PIU at each PWW - Project manager, accountant, technical officer,

Aspects	Arrangements		
	administrative officer, and social and environmental safeguards officer. At least one staff from the provincial Department of Industry and Handicraft will be included as the project manager of the PIU. PMU and PIU at SRWSA - Project Director, Project Manager, Water Supply Engineer, Civil Engineer, Procurement Officer, Social and Environmental Safeguards Officer, Administration Officer, and Accountant. Support staff and vehicles will be provided by SRWSA.		
Procurement	International competitive bidding	3 contracts	\$ 22.28 million
	National competitive bidding	2 contracts	\$ 1.43 million
	Shopping	4 contracts	\$ 0.16 million
Consulting services	Consulting firm (QCBS, 80:10, full technical proposal)	503 person-months	\$ 4.23 million
Advance contracting	Advanced action for consulting services and procurement of project vehicles and equipment.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, DPWS = Department of Potable Water Supply, MIH = Ministry of Industry and Handicraft, PIU = project implementation unit, PMU = project management unit, PWW = public waterworks, QCBS = quality- and cost-based selection, SRWSA = Siem Reap Water Supply Authority.

Source: Asian Development Bank estimates.

Project implementation organizations	Management Roles and Responsibilities
Ministry of Industry and Handicraft (MIH) Executing Agency	➤ will form a project management unit (PMU) for the day-to-day management of the project. Membership of the PMU will require about 10 staff in the following positions: (i) project director; (ii) project manager; (iii) accountant; (iv) technical officer (3); (v) procurement officer (2); (vi) administration officer; (vii) social and environmental safeguards officer; (viii) cashier; and (ix) four drivers (contract).
Department of Potable Water Supply (DPWS), MIH Project Management Unit (PMU) and	➤ will be assisted by the PIA consultants on project technical, safeguards, accounting and management on a daily basis as well as support the PIUs with project implementation and the PMU will be responsible for the following: (i) project management; (ii) coordinating with other agencies and relevant projects; (iii) procurement; (iv) contract supervision; (v) project monitoring; (vi) project reporting; (vii) supervision of training activities; (viii) managing of workshops; (ix) supervision of PIA Consultants; (x) financial management of Project; (xi) supervision of PIUs; (xii) communication with all stakeholders.
Provincial Waterworks (PWWs) Project Implementation Units (PIUs)	➤ will be formed in the project towns, and will be responsible for (i) monitoring and reporting monthly to PMU on project progress; (ii) contract supervision; (iii) liaison with PIAC and PMU in implementation of training programs; (iv) coordinating with other provincial agencies; and (v)

community communication. The PIUs will have the following membership: (i) project manager; (ii) provincial Department of Industry and Handicraft (DIH) representative; (iii) accountant; (iv) technical officer; administration officer; and (v) social and environmental safeguards officer; and driver (contract). Additional part-time staff may include (i) community coordinator or community awareness officer; and (ii) secretary, as most of these tasks will be carried out by PMU. A DIH representative will be a member of the PIU team, and where possible will hold the position of Project Manager with the Provincial Waterworks Director becoming the Technical Officer of the PIU.

SRWSA (PMU/PIU)

- A combined PMU and PIU will be formed by SRWSA covering similar responsibilities as for the PMU and PIUs, and with a combined PMU and PIU team including similar positions as above.

ADB

- 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.
-

B. Key Persons Involved in Implementation**Executing Agency**

Ministry of Industry and
Handicraft

Officer's Name
Position
Telephone
Email address
Office Address

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Secretary of State
+855 23 213 985
eksonnchan@hotmail.com
45 Norodom Boulevard
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Phnom Penh

ADB

Southeast Asia Department

Staff Name
Position
Telephone No.
Email address

To be confirmed
Director
+632 632-xxxx
xxxxx@adb.org

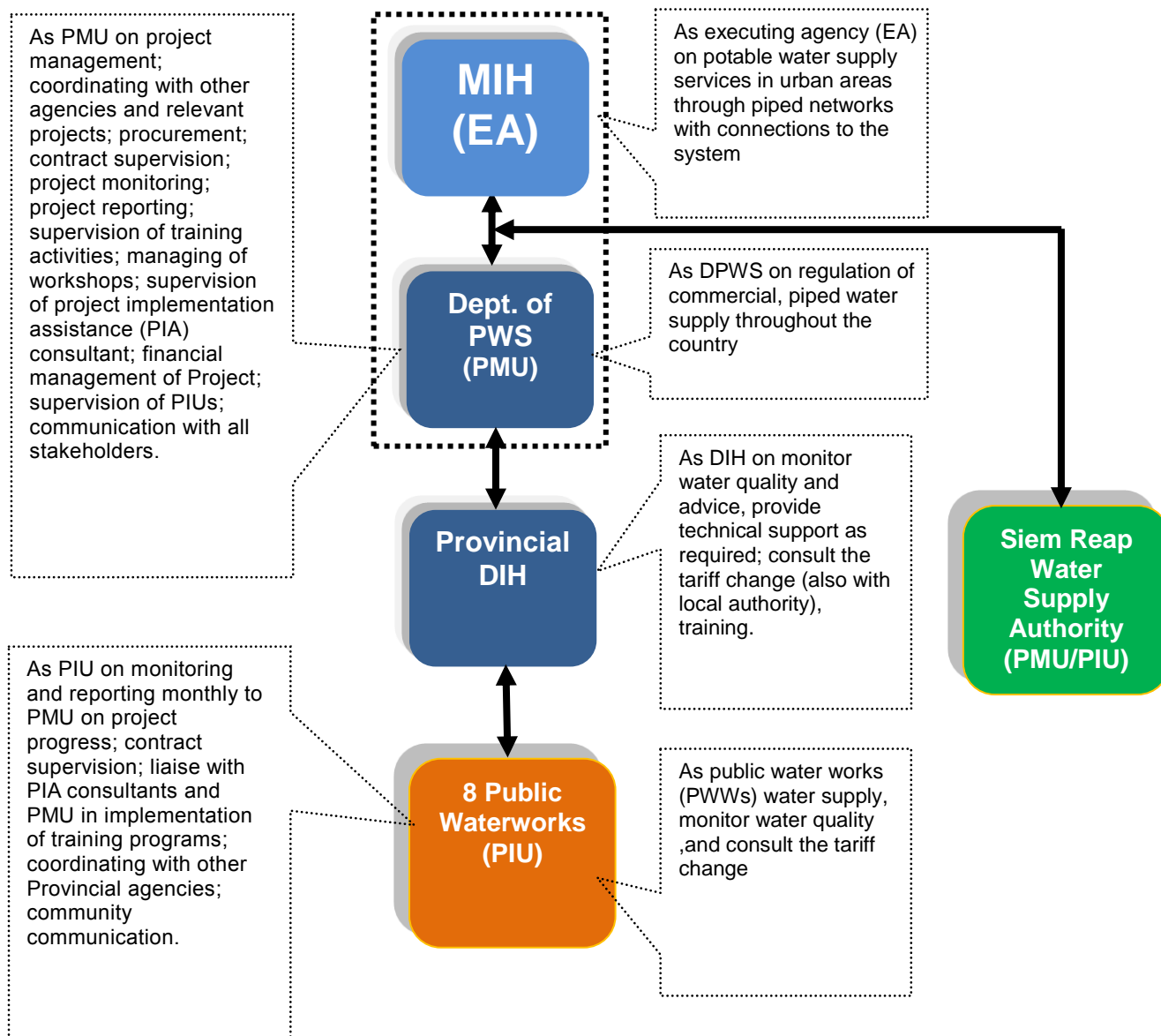
Mission Leader

Staff Name
Position

Telephone No.
Email address

Michael White
Urban Development
Specialist (Water Supply and
Sanitation)
+632 632 5798
mewwhite@adb.org

C. Project Organization Structure



EA=executing agency; DIH=Departments of Industry and Handicraft, MIH=Ministry of industry and Handicraft, PIA=project implementation assistance, PIU=project implementation unit, PMU=project management unit, PWW=public waterworks.

IV. COSTS AND FINANCING

21. The estimated investment costs for the Project is \$37.40 million including recurrent cost of \$0.840 million, taxes and duties of \$2.56 million, and financing charges during construction of \$0.417 million. ADB will finance a total of \$34.0 million (90.9% of investment costs) to cover civil works, mechanical and equipment, consultants, financing charges during implementation. The Government will finance \$3.40 million in-kind/cash (9.1% of investment costs) to cover taxes, duties, counterpart staff, and office space and other facilities.

A. Detailed Cost Estimates by Expenditure Category

Item	\$ million			% of Total Base Cost
	Foreign	Local	Total	
A. Investment Costs				
1 Output 1 – Improvement in Seven Towns	0.796	3.262	4.058	15.6
2 Output 2 – Stung Treng	0.210	11.068	11.278	43.5
3 Output 3 – Siem Reap	-	5.002	5.002	19.3
4 Output 4 – Project Implementation Support and O&M Development	1.500	2.630	4.130	15.9
5 Vehicles and equipment (including O&M)	0.470	0.180	0.650	2.5
Subtotal (A)	2.976	22.142	25.118	96.8
B. Recurrent Costs (Government counterpart funds)				
1 Salaries	-	0.660	0.660	2.5
2 Office space and other facilities	-	0.180	0.180	0.7
Subtotal (B)	-	0.840	0.840	3.2
Total Base Cost	2.976	22.982	25.958	100
C. Contingencies				
1 Physical	-	-	4.216	16.2
2 Price	-	-	4.249	16.4
Subtotal (C)	-	-	8.465	32.6
D. Financing Charges During Implementation	0.417	-	0.417	1.6
E. Taxes and duties	0.280	2.280	2.560	9.9
Total Project Cost (A+B+C+D+E)	3.673	25.262	37.400	144.1

B. Allocation and Withdrawal of Loan Proceeds

No.	Item	Amount Allocated \$ million	Percentage and Basis for Withdrawal from Loan Account	
1	Output 1 – Improvement in Seven Towns	4.058	100.0%	of total amount claimed*
2	Output 2 – Stung Treng	11.278	100.0%	of total amount claimed*
3	Output 3 – Siem Reap**	5.002	100.0%	of total amount claimed*
4	Output 4 – Project Implementation Support and O&M Development	4.130	100.0%	of total amount claimed*
5	Vehicles and equipment (including O&M)	0.650	100.0%	of total amount claimed*
6	Interest Charge	0.417	100.0%	percent of amounts due
7	Unallocated	8.465		
	Total	34.000		

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

** Subject to the condition for withdrawal described in paragraph 6 of Schedule 3.

Source: ADB estimates

C. Detailed Cost Estimates by Financier

Item		ADB		RGC		Total
		amount	%	amount	%	amount
A. Investment Costs						
1	Output 1 – Improvement in Seven Towns	4.058	100	-	0	4.058
2	Output 2 – Stung Treng	11.278	100	-	0	11.278
3	Output 3 – Siem Reap	5.002	100	-	0	5.002
4	Output 4 – Project Implementation Support and O&M Development	4.130	100	-	0	4.130
5	Vehicles and equipment	0.650	100	-	0	0.650
	Subtotal (A)	25.118	100	0.0	0	25.118
B. Recurrent Costs (Government counterpart funds)						
1	Salaries	-	-	0.660	100	0.660
2	Office space and other facilities	-	-	0.180	100	0.180
	Subtotal (B)	0.0	0	0.840	100	0.840
	Total Base Cost	25.118	96.8	0.840	3.2	25.958
C. Contingencies						-
1	Physical	4.216	100	-	0	4.216
2	Price	4.249	100	-	0	4.249
	Subtotal (C)	8.465	100	-	0	8.465
D. Financing Charges During Implementation		0.417	100	0.0	0.0	0.417
E. Taxes and Duties (Government counterpart funds)		-	-	2.560	100.0	2.560
	Total Project Cost (A+B+C+D+E)	34.000	90.9	3.400	9.1	37.400

Source: ADB estimates.

D. Detailed Cost Estimates by Outputs/Components

Items	Amount	Category as % of Total Project Cost
A. Investment Costs		
Output 1 – Improvement in Seven Towns	4.058	10.9
Output 2 – Stung Treng	11.278	30.1
Output 3 – Siem Reap	5.002	13.4
Output 4 – Project Implementation Support and O&M Development	4.130	11.0
Vehicles and equipment (including O&M)	0.650	1.7
Subtotal (A)	25.118	67.1
B. Recurrent Costs (Government counterpart funds)		
1. Salaries	0.660	1.8
2. Office space and other facilities	0.180	0.5
Subtotal (B)	0.840	2.3
Total Base Cost	25.958	69.4
C. Contingencies		
1. Physical Contingency	4.216	11.3
2. Price Contingency	4.249	11.4
Subtotal (C)	8.465	22.7
D. Financing Charges During Implementation	0.417	1.1
E. Taxes and Duties (Government counterpart funds)	2.560	6.8
Total Project Cost (A+B+C+D+E)	37.400	100

Source: ADB estimates.

E. Detailed Cost Estimates by Year

Item	2015	2016	2017	2018	2019	2020	Total
A. Investment Costs							
1 Output 1 – Improvement in Seven Towns	-	-	1.595	1.972	0.491	-	4.058
2 Output 2 – Stung Treng	-	-	2.651	3.836	3.836	0.955	11.278
3 Output 3 – Siem Reap	-	-	1.175	1.700	1.700	0.427	5.002
4 Output 4 – Project Implementation Support and O&M Development	0.620	0.828	0.828	0.828	0.828	0.198	4.130
5 Vehicles and Equipment (including O&M)	0.500	0.030	0.030	0.030	0.030	0.030	0.650
Subtotal (A)	1.120	0.858	6.279	8.366	6.885	1.610	25.118
B. Recurrent Costs (Government Counterpart funds)							
1 Salaries	-	-	-	-	-	-	-
2 Equipment Operation and Maintenance	-	-	-	-	-	-	-
Subtotal (B)	-	-	-	-	-	-	-
Total Base Cost	1.120	0.858	6.279	8.366	6.885	1.610	25.118
C. Contingencies							
1 Physical	0.188	0.144	1.054	1.404	1.156	0.270	4.216
2 Price	0.189	0.146	1.062	1.415	1.165	0.272	4.249
Subtotal (C)	0.377	0.290	2.116	2.819	2.321	0.542	8.465
D. Financing Charges During Implementation	-	-	0.045	0.159	0.213	-	0.417
Total Project Cost (A+B+C+D)	1.497	1.148	8.440	11.344	9.419	2.152	34.000

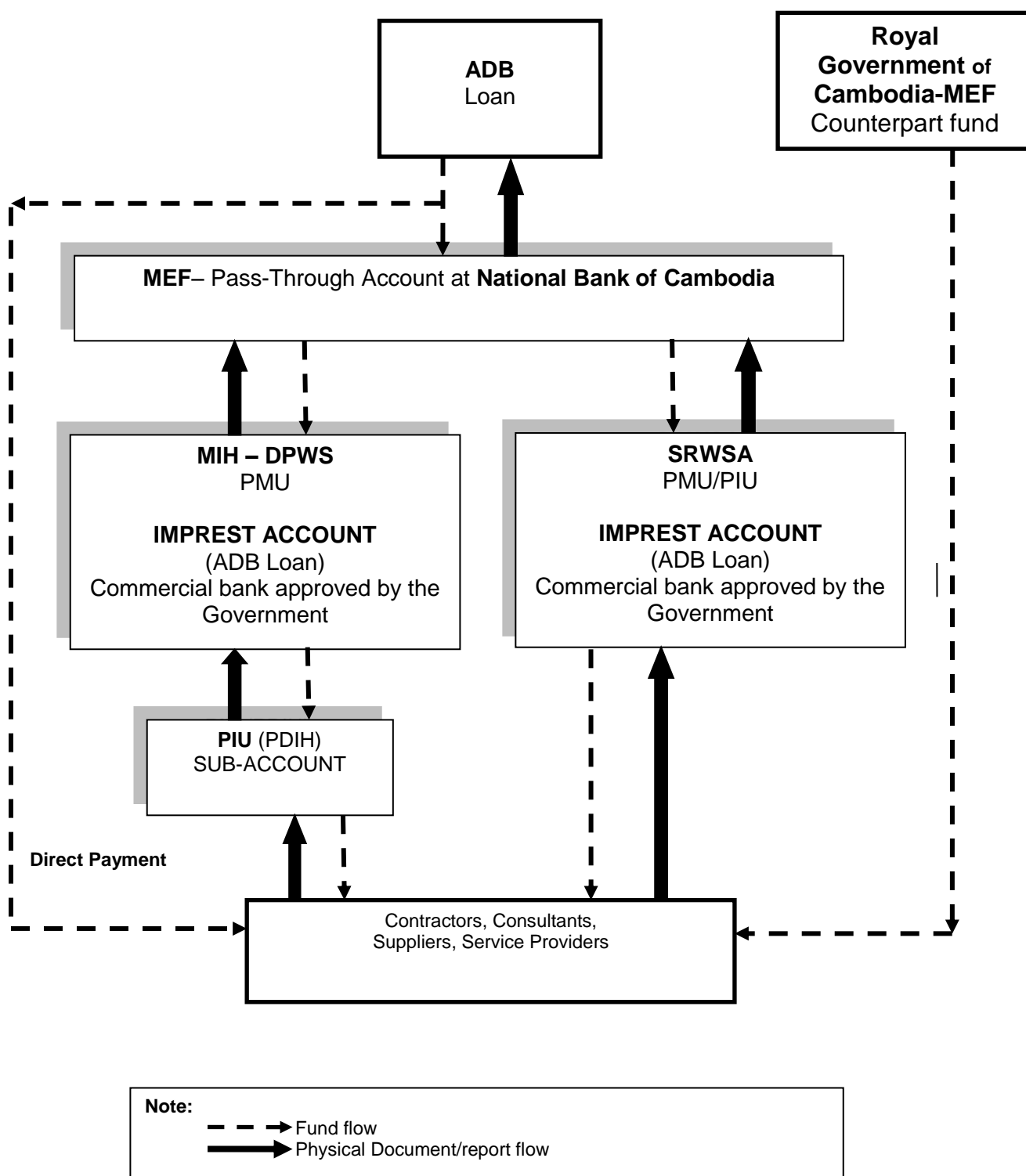
Source: ADB estimates.

F. Contract and Disbursement S-curve

22. The procurement will be carried out under international competitive bidding (ICB) for three civil works packages; one package Stung Treng (\$12.970 million) with a new water treatment and supply system; one package Siem Reap with Zone 1 distribution network (\$5.752 million); and the remaining seven water treatment and supply rehabilitation subprojects as one package (\$4.667 million). One consulting firm will be recruited for the PIA consultant package (\$4.23 million including provisional sums for surveys, investigations, training, etc.) and several packages for purchase of vehicles and equipment (total \$0.47 million). Contract disbursement S-Curve of the packages and combined disbursement S-Curve are as follows:

Quarter	Contract Awards	Disbursements
Q1	-	-
Q2	0.635	-
Q3	-	0.635
Q4	5.578	0.837
Q5	-	0.279
Q6	-	0.279
Q7	-	0.279
Q8	-	0.279
Q9	-	0.279
Q10	5.481	1.101
Q11	21.974	4.243
Q12	0.017	2.831
Q13	-	2.814
Q14	-	2.814
Q15	-	2.814
Q16	0.098	2.912
Q17	-	2.814
Q18	-	2.148
Q19	-	2.148
Q20	0.217	2.365
Q21	-	2.129
Total	34.000	34.000

G. Fund Flow Diagram



DPWS=Department of Potable Water Supply; MEF=Ministry of Economy and Finance; MIH=Ministry of Industry and Handicraft; PDIH=Provincial Department of Industry and Handicraft; PIU=project implementation unit; PMU=project management unit.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

23. A financial management assessment of the executing agency (MIH) and implementing agencies (eight PWWs and SRWSA) confirmed adequate project implementation and financial management arrangements. The MIH is a new ministry established in 2014. It has no track record in managing externally funded projects. However, it was formed from the previous Ministry of Industry, Mines and Energy (MIME) and its Department of Potable Water Supply (DPWS) has a long track record with externally-funded projects and technical assistance, including ADB projects. In addition, the new MIH leadership and senior officials are very familiar in managing externally funded projects.

24. There is an existing PMU under MIH/DPWS tasked to monitor implementation of the PPTA for this loan. A new PMU for the project implementation will be formed, utilizing existing experienced DPWS staff plus new staff as needed. The MIH and DPWS have qualified and experienced finance and accounting staff who can be nominated to the PMU. Furthermore, the financial and accounting staff are knowledgeable of the MEF's Financial Management Manual (FMM) for All Externally Financed Projects and Programs in Cambodia (May 2012) which is recognized by ADB and the World Bank. The staff have not been trained on updated ADB project implementation procedures, but training will be provided by ADB in coordination with the Cambodia Resident Mission.

25. The eight PWWs are government entities under the MIH, while SRWSA is a state-owned enterprise established under Decree No.4, dated 10 January 2007. With the exception of Stung Treng and Stoung, all of the PWWs and SRWSA have implemented externally-financed projects with multilateral and/or bilateral agencies, and all are subject to internal and national audits (by MEF). There are adequate finance and accounting staff at all nine IAs to fill PIU positions, but they need training on ADB financial reporting procedures, which will be provided by ADB in coordination with the Cambodia Resident Mission.

26. In addition to ADB training, Output 4 of the project will strengthen the capacity of the EA, PMU, and IA staff through continuous on-the-job support in project and financial management until project completion. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MIH.

B. Disbursement

27. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2012, as amended from time to time), and detailed arrangements agreed upon between the Government and ADB. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS [2009]), ADB funds may not be applied to the activities described in the ADB Prohibited Investment Activities List set forth at Appendix 5 of ADB's SPS (2009).

28. The government will establish one Pass-through account at the National Bank of Cambodia to receive from ADB Loan resources.

29. The PMU, will administer an imprest account as will the PMU/PIU at SRWSA.¹⁹ The imprest account will be established for resources from the ADB loan. Separate sub-accounts

¹⁹ Disbursement procedures discussed in Chapter 6 of *Loan Disbursement Handbook*.

may be established in the PWWs.

30. The maximum ceiling of the imprest account(s), in aggregate, will not at any time exceed the estimated ADB-financed expenditures to be paid from the imprest account for the next 6 months or 10% of the respective loan amount, whichever will be lower. If the PMU can demonstrate that it has adequate capacity to manage a larger imprest account at the time of implementation, ADB will consider removing the imprest account ceiling and provide advances to the account on the basis of six months estimated expenditure.²⁰ The currency of the imprest account will be in US dollars. The imprest and sub-accounts will be established, managed, replenished, and liquidated in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time) and the financial regulations of the Government.

31. The request for initial and additional advances to the imprest account should be accompanied by an Estimate of Expenditure Sheet setting out the estimated expenditures for the forthcoming 6 months of project implementation. For every liquidation and replenishment request of the imprest account, the borrower will furnish to ADB (a) Statement of Account (Bank Statement) where the imprest account is maintained, and (b) the Imprest Account Reconciliation Statement reconciling the above mentioned bank statement against the EA's records.²¹ The imprest account and sub-accounts are to be used exclusively for ADB's share of eligible expenditures. The EA who established the imprest account in its name is accountable and responsible for proper use of advances to the imprest account, including advances to the sub-accounts.

32. 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, unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest and/or sub-accounts, or by the EA/IA and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept WAs below the minimum amount.

33. **Statement of Expenditure (SOE).** The SOE procedures will be used for reimbursement, liquidation and replenishment of the imprest account, for eligible expenditures not exceeding equivalent of \$100,000 per individual payment, in accordance with the *Loan Disbursement Handbook* (2012, as amended from time to time). If the PMU can demonstrate that it has adequate capacity to administer the procedure at the time of implementation, ADB will consider removing the SOE ceiling. SOE records should be maintained and made readily available for review by ADB's disbursement and review missions or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.²² Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB. In accordance with paragraph 3 of OM J6/OP, expenditures in relation to Siem Reap SOE components will be designated in separate cost categories than the PWWs, to ensure that the conditions for withdrawal do not prevent implementation of non-Siem Reap project components.

²⁰ Action 2.27 of the ADB Strategy 2020 Midterm Review Action Plan, approved in July 2014.

²¹ Follow the format provided in Appendix 10C of the *Loan Disbursement Handbook*.

²² Checklist for SOE procedures and formats are available at: Appendix 9B of the *Loan Disbursement Handbook* (2012).

C. Accounting

34. The MIH will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following International Public Sector Accounting Standard for cash based accounting. The MIH will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

35. The MIH will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing, by an independent auditor acceptable to ADB. The audited project financial statements together with the auditors' opinion will be submitted in the English language to ADB within six months of the end of the fiscal year by the MIH.

36. 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.

37. 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.

38. The Government, the MIH, and implementing agencies have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.²³ 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.

²³ 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.

39. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011)²⁴. 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.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Procurement of Goods, Works and Consulting Services

40. Goods, works and services financed under the loan will be procured in accordance with the Cambodian Procurement Manual (updated May 2012) and ADB's Procurement Guidelines, (2013, as amended from time to time). Except as ADB may otherwise agree, the following thresholds in the table will apply to procurement of goods and works.

41. Within a year of loan effectiveness, the EA shall submit a revised procurement plan to ADB for approval. This revised plan contains all ongoing procurement activities and those that are planned for the succeeding 18 months. The plan shall be updated annually or as required after every loan review mission or after award of each major ICB contract.

42. **Modification in Civil Works Contracts.** For any contract variation, which would be in aggregate increase in the original contract amount by more than 15%, the EA shall provide detailed justification and seek no-objection from ADB on the proposed contract variation. If the proposed variation is inconsistent with the procurement plan and the provision of the financing agreement, the ADB shall promptly advise the EA stating the reasons for its position. The EA shall furnish the ADB all amendments to the contracts for civil works for legal and record purposes

43. The PIA consultants for the design and engineering review, tendering assistance, and construction management are provided under ADB financing and will be selected in advance and engaged in accordance with the ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

²⁴ Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>.

B. Procurement Plan

Basic Data

Project Name: Urban Water Supply Project	
Project Number: 41403-013	Approval Number:
Country: CAMBODIA	Executing Agency: Ministry of Industry and Handicraft
Project Procurement Classification:	Implementing Agency: Department of Potable Water Supply
Procurement Risk: Low	
Project Financing Amount: \$ 37.40 million ADB Financing: \$ 34.00 million Cofinancing (ADB Administered): Non-ADB Financing: \$ 3.40 million	Project Closing Date: 31 December 2019
Date of First Procurement Plan:	Date of this Procurement Plan: 14 November 2014

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

1. Procurement and Consulting Methods and Thresholds

44. 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	\$3,000,000	
International Competitive Bidding for Goods	\$1,000,000	
National Competitive Bidding (NCB) for Works ²	Beneath that stated for ICB, Works	
National Competitive Bidding for Goods ²	Beneath that stated for ICB, Goods	
Shopping for Goods	Below \$100,000	

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS) (80:20)	

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

45. 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 ⁵	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Not applicable						

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

46. 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
	Project Implementation Assistance Consultant	\$4.23 million	QCBS (80:20)	Prior	Q4/2014	Full Technical	

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

47. 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 ⁵	General Description	Estimated Value	Number of Contracts	Procurement Method	Review [Prior / Post/Post]	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Vehicles (9)	\$315,000	1	NCB	Prior			Goods
	Vehicles (2)	\$70,000	1	Shopping	Prior			Goods
	Equipment	\$85,000	3	Shopping	Prior/Post			

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments

B. Indicative List of Packages Required Under the Project

48. The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post]	Bidding Procedure	Comments
1a	WTP rehabilitation	\$3.56 million	1	ICB	Prior		Works
1b	Pipelines	\$1.11 million	1	NCB	Prior		Works
2	Stung Treng	\$12.97 million	1	ICB	Prior		Works
3	Siem Reap	\$5.75	1	ICB			Works

C. National Competitive Bidding

A. Regulation and Reference Documents

49. The procedures to be followed for national competitive bidding shall be those set forth for the “National Competitive Bidding” method in the Government’s Procurement Manual issued under Sub-Decree Number 74 ANKR.BK, updated version dated 22 May 2012 with the clarifications and modifications described in the following paragraphs. These clarifications and modifications are required for compliance with the provisions of the Procurement Guidelines.

50. For the procurement of ADB financed contracts under National Competitive Bidding (NCB) procedures, the use of harmonized national bidding documents (NCB and National Shopping) developed in consultation with development partners including ADB, is mandatory except where the Government and ADB have agreed to amendments to any part of the documents. The Procurement Manual also advises users to check the ADB website from time to time for any update on ADB documents, which form the basis, among others, of the existing harmonized national bidding documents.

B. Procurement Procedures

1. Application

51. Contract packages subject to National Competitive Bidding procedures will be those identified as such in the project Procurement Plan. Any change to the mode of procurement of any procurement package in the Procurement Plan shall be made through updating of the Procurement Plan, and only with prior approval of ADB.

2. Sanctioning

52. Bidders shall not be declared ineligible or prohibited from bidding on the basis of barring procedures or sanction lists, except individuals and firms sanctioned by ADB, without prior approval of ADB.

3. Rejection of all Bids and Rebidding

53. The Borrower shall not reject all bids and solicit new bids without ADB’s prior concurrence. Even when only one or a few bids is/are submitted, the bidding process may still be considered valid if the bid was satisfactorily advertised and prices are reasonable in comparison to market values.

4. Advertising

54. Bidding of NCB contracts shall be advertised on the ADB website via the posting of the Procurement Plan. Borrowers have the option of requesting ADB to post specific notices in the ADB website.

C. Bidding Documents

5. Use of Bidding Documents

55. The Standard National Competitive Bidding Documents provided with the Government's Procurement Manual shall be used to the extent possible both for the master bidding documents and the contract-specific bidding documents. The English language version of the procurement documents shall be submitted for ADB review and approval in accordance with agreed review procedures (post and prior review) as indicated in the Procurement Plan. The ADB-approved procurement documents will then be used as a model for all procurement financed by ADB for the project.

7. Bid Evaluation

56. Bidders shall not be eliminated from detailed evaluation on the basis of minor, non-substantial deviations.

57. 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.

8. Employer's Right to Accept or Reject Any or All Bids

58. The decision of the Employer to accept or reject any or all bids shall be made in a transparent manner and involve an obligation to inform of the grounds for the decision through the bid evaluation report.

9. ADB Policy Clauses

59. A provision shall be included in all NCB works and goods contracts financed by ADB requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

60. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that the Borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

61. A provision shall be included in all bidding documents for NCB works and goods contracts financed by ADB stating that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

D. Consultant's Terms of Reference

62. A Project Management Unit (PMU) is to be established within the Ministry of Industry and Handicraft (MIH), through its Department of Potable Water Supply (DPWS), and Project Implementation Units (PIUs) at eight waterworks (Kampong Cham, Kampong Thom, Kampot,

Pursat, Sihanoukville, Stoung, Stung Treng, and Svay Rieng). At Siem Reap Water Supply Authority (SRWSA), this state-owned enterprise will make its own arrangements for the project implementation and agree this with the MIH. The PMU will ensure effective project execution, including overall project planning; ensuring designs and contract documents are prepared and approved; ensuring contracting and procurement of goods, works and services under the project; monitoring and reporting to the Government and Asian Development Bank (ADB) on project implementation; ensuring compliance with project safeguards and loan covenants; and assist PIUs with project and construction supervision, monitoring and reporting and day-to-day management of project activities.

63. MIH/DPWS, the waterworks, and SRWSA will require assistance in managing and implementing the project. This will be provided through the provision of consulting services under the proposed project implementation assistance (PIA) component. A team of international and national consultants will be recruited under ADB guidelines to provide this assistance. Advance recruitment of the consultants has been requested by the MIH to ensure that they are in place to train staff to adequately plan and manage the start-up and execution of the project.

64. The overall goal of the consulting services package is to enhance the effectiveness and efficiency of the MIH/DPWS, and the public water utilities, and to ensure that the proposed project is implemented effectively. Assistance will be provided to the PMU, the PIUs, and SRWSA. Key objectives of the assistance are:

- To provide engineering services—detailed engineering design, bidding documents, and construction supervision—for project implementation.
- To provide project implementation and management support, including safeguards, procurement, and monitoring.
- To develop the capacity of the PMU staff to effectively manage project execution, and with PIUs' staff.
- To develop the capacity the waterworks and SRWSA to operate and maintain the facilities developed and equipment purchased under the project.

1. Project Implementation Assistance (PIA) Consultant Package

1. Description

65. The scope of the consulting services involves four main components: (i) provision of engineering services; (ii) provision of project implementation and management support; (iii) capacity development and training of PMU and PIUs in project management and implementation, through on-the-job training; and (iv) building the operation and maintenance capacity of the waterworks and SRWSA through on-the-job training. One package is proposed to accomplish all four of the above objectives for the project implementation assistance.

66. Engineering services will cover the detailed engineering design, bidding, and construction supervision for (i) improvement and rehabilitation of existing water supply systems in seven provincial towns; (ii) a new water supply system for Stung Treng; and (iii) new transmission and distribution pipelines in Siem Reap.

67. Consultants will carry out all necessary surveys—including detailed topographical and soil surveys, field verification, studies, collection of data, and analyses needed to prepare the detailed engineering designs and bidding/contract documents for the three components covering nine subproject towns. The consultants will prepare detailed designs and cost

estimates—accurate to plus or minus five percent—and bidding documents in line with the procurement plan and ADBs standard bidding documents. They will manage and administer construction contracts, including any variation orders. The consultants will also support the PMU and PIUs in the supervision of construction to ensure quality control and compliance with all aspects of the project designs and specifications.

68. All design and procurement documents prepared by the design and construction supervision consultants will be in accordance with national and international norms and procedures as required. The consultants will coordinate closely with the PMU and PIUs in all aspects of the consultancy design and supervision services. Bidding and Contract Documents shall be in accordance with the *ADB Procurement Guidelines (2013 as amended from time to time)*, ADB Standard Bidding Documents for Procurement of Works, or Procurement of Goods, and government procurement rules and regulations.

69. PMU and PIUs in project implementation, management and financing, managing imprest accounts, monitoring resettlement, environmental and social safeguards. General tasks include assistance in:

- Setting up project accounts.
- Preparing project administration procedures, manuals, and software.
- Training PMU and PIUs' staff on project implementation.
- Training on ADB procedures for national, provincial and municipal agencies and for other stakeholders.
- Preparing, updating and implementing resettlement plans, environmental plans and other social plans—gender action plan—for the project.
- On-job-training for PMU, PIUs/USUs and provincial and municipal agencies on (O&M) of the infrastructure improvements to be implemented under the project.
- Preparation of required project reports—quarterly progress (including safeguard monitoring reports), annual project performance monitoring and evaluation, and other required reports.
- Support the Government and the ADB project team in carrying out milestone reviews—midterm and final reviews, and the preparation of the project completion report (including safeguard monitoring reports). The PMIS consultants will also assist in updating the procurement capacity assessment during the midterm review.

70. On-the-job training for PMU and PIUs includes:

- training staff for the effective and efficient implementation of the project.
- improving staff capacities in the management of the new facilities.
- ensuring adequately trained staff for effective operations and maintenance of the project facilities, and to enhance cost recovery.
- strengthening monitoring, reporting and evaluation of the project (project performance management system)

71. The project implementation support includes a training plan to transfer knowledge in all aspects of project management; more specifically:

- **Procurement**—formal and informal training through on-the-job sessions which will include the preparation of bidding documents, specifications, selection criteria as well as bid evaluation processes. It will cover the training of EA, PMU, and PIUs and will be coordinated with available ADB training.

- **Financial management**—the procurement and operationalization, including staff training, of a computerized accounting system for the PMU and PIUs/USUs; training in ADB loan disbursement procedures and the government's standard operating procedures for externally-financed programs and projects; and technical support in project financial management and administration, and project accounting. This will be coordinated with available ADB training.
- **Customer relations**—training to improve the interface with customers, and the design and operations of an effective billing and collection system.
- **Social and environmental safeguards**—training of PMU and PIUs staff in the design and methodology for undertaking poverty and social assessments (PSA), conducting such surveys, and the necessary data and information analysis. These training programs will incorporate the provisions of the national policies and requirements of the ADB Safeguard Policy Statement.
- **Gender mainstreaming**—participatory workshops with provincial and municipal authorities and project staff to update the gender action plan (GAP), to improve knowledge and skills staff in respect of gender issues, increasing women's participation in key decision making and implementation arrangements. On-the-job training will be provided on gender related matters. Information, Education and Communication (IEC) programs will also be implemented to improve the participation of women in urban community development through communities in the two towns. Implementation of workshops and sessions might be done together with MIH's gender working group.
- **Environmental management**—training to enable staff to review the Initial Environmental Examination (IEE) reports, due diligence reports, and to update the Environmental Management Plans (EMPs).
- **Operation and maintenance of the project facilities**—manuals will be prepared with the PMU and training will be provided on their use. Training, through workshop sessions, group discussions and on-the-job training will be provided to the PIUs. Training also will be provided in revenue generation and collections, if needed.
- **Monitoring, reporting and evaluation**—training to enable the design and implementation of the Project Performance and Monitoring System (PPMS). This will assist the project staff to carry out monitoring, reporting and evaluation activities required during implementation.

72. The training plan will be implemented by the EA through the PMU. Capacity building assistance and training programs on financial and procurement management will need to be closely coordinated with the Ministry of Economy and Finance and tied in with available ADB training programs. The PMU will work closely with Ministry of Environment on the training programs involving the updating of the EMPs and mitigation measures on environment safeguards. Capacity development on gender considerations will be coordinated with the gender working group within MIH and the Ministry of Women's Affairs, and sustainability measures will be developed during project implementation. The training programs on the O&M of will be coordinated by the PMU and may utilized the expertise of Phnom Penh Water Supply Authority.

2. Staffing and Qualifications

73. The consultants' team to be fielded to prepare detailed engineering designs, bidding, undertake construction supervision, and to implement the training will require an estimated 503 persons months of consultants—88 person-months of international and 531 person-months of national consultants will be required. The team will work closely with all relevant stakeholders, particularly the PMU and the PIUs. All team members are expected to act as resource persons for the training and development activities. The international and national positions required are set out in the table below:

Position & Task	Person-Months	Minimum Qualifications	Minimum Work Experience
<i>International Consultants</i>			
Team Leader & Water Supply Specialist	32	Degree in civil engineering or a related discipline specializing in water supply.	At least 15 years' experience in detailed design and construction of urban water supply systems and water treatment plants. Previous experience as team leader of water supply design and construction supervision projects for multilateral development agencies in Southeast Asia is preferred. Experience in operation and maintenance with a water utility is preferred.
Senior Water Supply Engineers - Design (2 positions)	22	Degree in civil engineering or a related discipline specializing in water supply.	At least 10 years' experience in the detailed engineering design of urban water supply systems and water treatment plants. Previous experience working on urban water supply projects in Southeast Asia is preferred. One position based in Stung Treng and one position based in Phnom Penh.
Electro-Mechanical Engineer	5	Degree in mechanical or electrical engineering or a related discipline.	At least 10 years' experience in the detailed engineering design of urban water supply systems and water treatment plants. Previous experience working on water supply projects in Southeast Asia is preferred.
Structural Engineer (2 positions)	10	Degree in civil or structural engineering or a related discipline.	At least 10 years' experience in the detailed engineering design of urban water supply structures and water treatment plants. Previous experience working on water supply projects in Southeast Asia is preferred.
Geotechnical Specialist	4	Masters Degree in civil or geotechnical engineering or related subject	10 years' experience of geotechnical engineering & soil mechanics for urban water supply projects, including water treatment plants. Previous experience working on projects in Southeast Asia is preferred.
Environment Specialist	5	Masters Degree in environmental science, engineering, planning or equivalent	10 years' experience in environmental management & assessment in developing countries. Experience in Southeast Asia of urban water supply or related projects financed by multilateral development agencies is preferred.

Position & Task	Person-Months	Minimum Qualifications	Minimum Work Experience
Social Development/ Gender/ Resettlement Specialist	5	Degree in relevant social sciences discipline	10 years' experience in poverty & social analysis with particular expertise in areas of social risk mitigation and gender & development , preferably within urban & peri-urban communities. Experience in Southeast Asia and of urban water supply projects or related projects financed by multilateral development agencies is preferred.
Finance Specialist	4	Degree in finance, accounting, business management or a related discipline.	10 years of experience of financial management & accounting of projects financed by multilateral development funding agencies, with 5 years' experience on the financing of urban water supply projects and on designing cost recovery systems. Previous experience working on projects in Southeast Asia with multilateral development agencies is preferred.
Institutional/Training Specialist	6	Master's degree in human resource management or a related discipline or an equivalent professional qualification.	15 years of working experience in institutional development and capacity building of public entities and water utilities, preferably involved in urban water supply and service delivery. Experience in designing and conducting training courses/assignments in urban water supply is essential and previous work experience with multilateral development agencies is preferred.
TOTAL	93	Person Months of International Consultants	
National Consultants			
Deputy Team Leader/ Water Supply Engineer	44	Degree in civil or municipal engineering or a related discipline	15 years' experience in detailed design and construction supervision of urban water supply, sanitation and related projects. Previous work experience on projects with multilateral development agencies, with 3 years' experience as a deputy team leader on such projects. Fluency in written and spoken English is required. Experience working with a water utility is preferred.
Water Supply Engineer (3 positions)	54	Degree in civil engineering or a related discipline specializing in water supply.	10 years' experience in the detailed engineering design of urban water supply systems and water treatment plants. Fluency in written and spoken English is required. Must have a demonstrated ability to work within a multi-disciplinary consulting team with counterparts and others project stakeholders.
Electrical Engineer	12	Degree in electrical engineering or a related discipline specializing in water supply.	10 years' experience in the detailed engineering design of projects, with at least 5 years experience in urban water supply systems and water treatment plants or related projects. Fluency in written and spoken English is required. Must have a demonstrated ability to work within a multi-disciplinary consulting team with counterparts and others project stakeholders.

Position & Task	Person-Months	Minimum Qualifications	Minimum Work Experience
Mechanical Engineer	12	Degree in mechanical engineering or a related discipline specializing in water supply.	10 years' experience in the detailed engineering design of projects, with at least 5 years experience in urban water supply systems and water treatment plants or related projects. Fluency in written and spoken English is required. Must have a demonstrated ability to work within a multi-disciplinary consulting team with counterparts and others project stakeholders.
Structural Engineer (2 positions)	18	Degree in civil or structural engineering or a related discipline.	10 years' experience in the detailed engineering design of civil engineering structure, with at least 5 years experience in urban water supply systems and water treatment plants. Fluency in written and spoken English is required. Must have a demonstrated ability to work within a multi-disciplinary consulting team with counterparts and others project stakeholders.
Geotechnical Engineer	8	Masters degree in civil or geotechnical engineering or related subject	8 years' experience of geotechnical engineering & soil mechanics for urban water supply projects, including water treatment plants. Fluency in written and spoken English is required. Must have a demonstrated ability to work within a multi-disciplinary consulting team with counterparts and others project stakeholders.
Procurement Specialist	12	Degree in civil engineering, or an equivalent professional qualification	8 years of working experience on the procurement of civil works contracts and services, within demonstrated experience in the water supply and sanitation sector. Experience on assignments funded by multilateral development agencies would be beneficial. Fluency in written and spoken English is required.
Environment Specialist	12	Degree in environmental science, engineering, planning or a related discipline	5 years of experience in environmental management, safeguards or environmental impact assessments. Experience on urban development or related assignments funded by multilateral development agencies would be beneficial. Fluency in written and spoken English is required
Social/Gender/Resettlement Specialist	12	Degree in social sciences, development sociology or a related discipline.	5 years' experience of working with social safeguards in development projects. Experience on urban water supply projects or related assignments funded by multilateral development agencies (preferably ADB).would be beneficial. Fluency in written and spoken English is required.
Human Resource / Training Coordinator	12	Master's degree in human resource management, governance or another related institutional development discipline or an equivalent professional qualification.	5 years or more of working experience in consultancy assignments and/or at senior level. Experience on urban water supply or related assignments funded by multilateral development agencies related to human resources and training assignments would be beneficial. Fluency in written and spoken English is required.

Position & Task	Person-Months	Minimum Qualifications	Minimum Work Experience
Financial Management / Accounting Specialist	44	Qualified accountant with a degree in business management or accounting	5 years of experience of financial management & accounts for urban development project implementation. Experience on urban development or related assignments funded by multilateral development agencies would be beneficial. Fluency in written and spoken English is required
Resident Engineer (3 positions)	99	Degree in civil engineering, construction management, or related discipline.	10 years' experience of supervising construction of large scale infrastructure projects and having worked as resident engineer on 3 projects and with at least one urban water supply or related project funded by a multilateral development agencies would be beneficial.
Site Engineers (4 positions)	132	A degree in civil, structural or municipal engineering or a related discipline	5 years of experience in construction supervision of urban water supply or infrastructure development projects.
AutoCAD Operators (4 positions)	60	A diploma in computer aided technical design	5 years of experience in the preparation of computer aided detailed engineering designs using AutoCad software for urban infrastructure. Familiarity with the design of landfills, drainage systems and flood control facilities would be beneficial, as would work with international funding institutions.
TOTAL	531	Person Months of National Consultants	
GRAND TOTAL	624	Person Months of International and National Consultants	

3. Detailed Terms of Reference

74. **Team Leader and Water Supply Specialist** (International, 32 person-months)

- Responsible for overall project implementation and delivery of all aspects including but not limited to procurement, safeguards, detailed engineering design, financial and social development.
- Responsible for signing off on the final project and infrastructure designs for all outputs.
- Develop strong working relationship with executing agencies, implementing agencies, and PIUs, and ensure smooth coordination among them.
- Confirm commitments to project implementation from all stakeholders.
- Develop detailed time bound implementation schedules.
- Development a project performance management system that includes links to the gender action plan, and loan covenants.
- Provide initial training in project management and oversight for PMU, PIUs, and NGO members.
- Help ensure compliance with the relevant policies and guidelines of the Government and ADB.
- Check as necessary detailed designs, cost estimates, bidding documents, and other contract documentation for all outputs.
- Provide regular oversight to PMU and PIU staff and local consultants in the management of civil works and goods contracts and in the supervision of construction and subsequent commissioning of works for all outputs.
- Provide oversight for overall subproject financial management, accounting, disbursements and audit requirements.
- Coordinate cross-cutting in the project amongst team members.
- Assist in arranging for smooth handover of the project facilities to the agencies responsible for operation and maintenance including advice and assistance on the preparation of all documentation necessary (i.e. as-built drawings) to close out contracts.
- Ensure proper and timely submission of regular progress reports to executing agencies and ADB, particularly the progress against target indicators. Incorporate information from other consulting packages for respective outputs.
- Initiate actions in the event of any adverse, oblique and/or other variances against the original plan.
- Provide overall guidance to the implementation of training.
- Assist in ensuring all resettlement and environmental impact mitigation measures are fully implemented, ensure associated reporting is completed, and minimize adverse environmental impacts during construction.
- Provide site management guidance to PIUs and local consultants in relation to the construction for the all outputs.
- Assist in project planning, scheduling, and reporting of subproject activities.
- Assist in ensuring the quality of all of the infrastructure components.
- Train executing agency, implementing agency, and PMU and PIU staff on ADB procurement guidelines.
- Assist in the detailed monitoring and evaluation surveys for the project.
- Provide overall support for selection of contractors and suppliers, contract management, and quality control and inspection.
- Ensure annual submission of project performance monitoring reports against the PPMS developed.

- Ensure implementation of gender and social development measures, including the implementation and monitoring of the GAP and community participation plan.

75. **Senior Water Supply Engineer** (International, 11 person-months x 2 positions)

- Review the viability of the proposed subprojects already prepared/identified by the PPTA Consultants and revised by the DPWS, MIH in the nine subproject towns. Identify any potential changes based on the current situation at each town.
- Discuss with the Team Leader and the PMU and confirm the priority areas and finalize the infrastructure investment subprojects.
- Identify any missing data or information and prepare scopes of work, specifications, and bidding documents for studies, investigations, and surveys to complete the necessary information required for detailed engineering design.
- Assess all viable technical options and identify the least-cost analysis and review and define design criteria and standards.
- Coordinate closely with the Electro-Mechanical Engineers, Geotechnical Engineers, and Structural Engineers to ensure technical designs are compatible.
- Coordinate closely with the Environmental Specialists to ensure compatibility of the design with the EMP.
- Prepare detailed engineering designs, cost estimates, specifications, and bidding documents for all selected subprojects.
- Incorporate lessons learned from the experience of PPWSA, SRWSA, into the design.
- Contribute to the final design report.
- Contribute to all necessary reporting under the project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

76. **Electro-Mechanical Engineer** (International, 8 person-months)

- Review the viability of the proposed subprojects already prepared/identified by the PPTA Consultants and revised by the DPWS, MIH in the nine subproject towns. Identify any potential changes based on the current situation at each town.
- Discuss with the Team Leader and the PMU and confirm the priority areas and finalize the infrastructure investment subprojects.
- Identify any missing data or information and prepare scopes of work, specifications, and bidding documents for studies, investigations, and surveys to complete the necessary information required for detailed engineering design.
- Assess all viable technical options and identify the least-cost analysis and review and define design criteria and standards.
- Coordinate closely with the Water Supply Engineers and Structural Engineers to ensure technical designs are compatible.
- Coordinate closely with the Environmental Specialists to ensure compatibility of the design with the EMP.
- Prepare detailed engineering designs, cost estimates, and specifications, and provide inputs to the bidding documents for all selected subprojects.
- Incorporate lessons learned from the experience of PPWSA, SRWSA, into the design.
- Contribute to the final design report.

- Contribute to all necessary reporting under the Project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

77. **Structural Engineer** (International, 9 person-months x 2 positions)

- Prepare the structural designs for all required civil works structures to national structural design standards and coordinate closely with the Senior Water Engineers.
- Liaise with the International and National Geotechnical Engineers regarding design issues and criteria relevant to the prevailing soil conditions.
- Liaise with the AutoCAD operators for the production of structural drawings.
- Prepare detailed technical specifications, performance specifications, detailed cost estimates, and quantities relating to the structural components.
- Contribute to the final design report.
- Contribute to all necessary reporting under the project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

78. **Geotechnical Engineer/Specialist** (International, 4 person-months)

- Prepare scope of work and terms of reference for geotechnical surveys and investigations required for all subprojects, to ensure sufficient data are collected for effective and efficient design of the civil works structures.
- Provide overall supervision of the geotechnical surveys and investigations and report to the Team Leader.
- Based on results from the surveys and investigations confirm or develop appropriate geotechnical design criteria, design concepts, and methodologies for the civil works.
- Prepare detailed geotechnical designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- Contribute to the final design report.
- Contribute to all necessary reporting under the project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

79. **Environment Specialist** (International, 5 person-months)

- Ensure ADB Environment safeguard category remains B or below.
- Assist the PMU in ensuring the incorporation of relevant mitigation measures in the detailed designs, coordinated public consultations and disclosure and information dissemination with the social and resettlement team, and that the RGC's environmental assessment requirements will not cause delay in the commencement of the construction phase.
- Finalize and update the IEEs and EMPs, as necessary, based on the detailed engineering designs, and ensure consistency, where applicable, with other safeguard plans.
- Assist the PMU in preparing for procurement by: (i) ensuring that the SPS-compliant EMP is part of the tender documents and civil works contracts; and (ii) establishing and incorporating environmental criteria, scoring and weight in the evaluation of bids in coordination and agreement with the procurement committee.

- Assist the PMU in ensuring that contractors prepare their respective contractor's EMP (C-EMP) based on the SPS-compliant EMP and actual site conditions and in evaluating the contractor's EMPs (C-EMPs).
- Assist the PMU in preparing for the activation of the grievance redress mechanism, undertaking pre-construction environmental quality monitoring as recommended in the EMP, and reviewing and evaluating Contractor's EMPs to ensure they are fully responsive to the SPS-compliant EMPs.
- Design a tool or system to facilitate effective consultations, monitoring and inspection and reporting by the PMU.
- Coordinate with the MOE and TSA on regulatory compliance issues—for water quality in the the Tonle Sap, noise and dust from construction sites, sanitation in workers campsite, etc.
- Provide training lectures and/or seminars on the EMP and its implementation.
- During construction and operation, guide the PMU in supervising, monitoring, and reporting EMP implementation.
- Assess the operation and observance of the grievance redress mechanism, and recommend improvements.
- Review the results of the environmental effects monitoring. Recommend investigations and recommend corrective actions, as necessary
- Assist the PMU and PIUs in follow up consultations.
- Conduct visits to work sites to provide guidance to, and advise the PIUs and operators on environmental management concerns arising during project construction and operation, respectively, and recommend corrective measures.
- Prepare the necessary status reports for compliance with the conditions set out in approved Royal Government of Cambodia's IEE and EIA Reports.
- Assist in the preparation of monthly and semi-annual environmental monitoring reports (EMRs) and finalize the monthly EMRs for input to the PMU's monthly progress report and semi-annual EMR for submission to the ADB.
- Recommend measures to ensure effective EARF and EMP compliance and/or implementation, as necessary.
- Ensure that capacity development in environmental management is carried out through "hands on" training during the implementation of the EARF and EMPs, through lectures, seminars and other activities on the EARF and EMP implementation.

80. Resettlement/Social Development/Gender Specialist (International, 5 person-months)

- Work closely with PMUs and local authorities at all levels on all social development and social safeguards (resettlement and indigenous peoples) matters, in updating and implementing the resettlement due diligence reports, including the gender action plan and related activities for all outputs.
- Ensure that the EA confirms with the loan covenants on land acquisition and resettlement activities.
- Assist in the public consultation activities and include the feedback into the project design as necessary.
- Ensure that grievances are addressed promptly and properly and that grievance redress mechanism is functioning well.
- Provide necessary training on grievance if needed.

- Establish and implement procedures for ongoing internal monitoring for land acquisition and resettlement activities in accordance with the updated DDR and include it in the internal monitoring report for the subproject prior to contract awards.
- Design and deliver capacity development activities for all relevant agencies, as needed, in the areas of ADB resettlement and indigenous peoples policy; participation and communication; gender and development; and livelihood restoration.

81. **Finance Specialist** (International, 4 person-months)

- Review ongoing activities for the different waterworks.
- Identify issues and problems and propose tariff structure in consideration of the affordable limits of target beneficiaries, O&M cost, economic efficiency, and sustainability.
- Review the financial performance of service delivery and capacity of implementing agencies regarding cost recovery, borrowing capacity, collection of fees and taxes, accounts receivable, and subsidies, as appropriate.
- Develop a tariff setting and subsidy methodology designed to achieve financial sustainability.
- Monitor project financial performance of the investments and the sector, considering the proposed financial structure and tariff setting methodology.
- Draft recommendations regarding an effective and appropriate regulatory mechanism to ensure requisite service quality and tariffs.

82. **Institutional/Training Specialist** (International, 6 person-months)

- Develop a detailed capacity development and/or training plan for the project, catering to the needs of the PMU and PIUs.
- Prepare, deliver, evaluate and follow-up on training courses.
- Ensure that training records are sex-disaggregated for each session.
- Ensure that at least 30% of training opportunities are allocated to women in project implementation structures.
- Design and contribute to project workshops, training events, and reports as required.
- Prepare a monitoring table for capacity development and training activities.
- Prepare a capacity development and training evaluation report format for the Team Leader to complete at project end.

83. **Deputy Team Leader/Water Supply Engineer** (National, 44 person-months). The national consultant will support the international consultant in carrying out the tasks below:

- Be responsible for overall project implementation and delivery of all aspects including but not limited to procurement, safeguards, detailed engineering design, financial and social development for all outputs.
- Develop strong working relationship with executing agencies, implementing agencies, civil society organizations and PIUs, and ensure smooth coordination among them.
- Confirm commitments to project implementation from all stakeholders.
- Work with the Team Leader to develop detailed time bound implementation schedules.
- Provide initial training in project management and oversight for PMU and PIUs.

- Help ensure compliance with the relevant policies and guidelines of the Royal Government of Cambodia and ADB.
- Check as necessary detailed designs, cost estimates, bidding documents, and other contract documentation.
- Provide regular oversight to PMU and PIU staff and local consultants in the management of civil works and goods contracts and in the supervision of construction and subsequent commissioning of works.
- Provide oversight for overall subproject financial management, accounting, disbursements and audit requirements.
- Assist in arranging for smooth handover of the project facilities to the agencies responsible for operation and maintenance including advice and assistance on the preparation of all documentation necessary (i.e. as-built drawings) to close out contracts.
- Ensure proper and timely submission of regular progress reports to executing agencies and ADB, particularly the progress against target indicators.
- Initiate actions in the event of any adverse, oblique and/or other variances against the original plan.
- Provide overall guidance to the implementation of training and community awareness programs.
- Assist in ensuring all resettlement and environmental impact mitigation measures are fully implemented, ensure associated reporting is completed, and minimize adverse environmental impacts during construction.
- Provide site management guidance to PIUs and local consultants in relation to the construction.
- Assist in project planning, scheduling, and reporting of subproject activities.
- Assist in ensuring the quality of all of the infrastructure components.
- Update the draft procurement plan from time to time (at least annually).
- Train executing agency, implementing agency, and PMU and PIU staff on ADB procurement guidelines.
- Assist in the detailed monitoring and evaluation surveys.
- Provide overall support for selection of contractors and suppliers, contract management, and quality control and inspection.
- Ensure implementation of gender and social development measures, covering GAP and community participation plan.

84. **National Water Supply Engineer** (International, 18 person-months x 3 positions). Assist the International Water Supply Engineers to:

- Review the viability of the proposed subprojects already prepared/identified by the PPTA Consultants and revised by the DPWS/MIH in the nine subproject towns. Identify any potential changes based on the current situation at each town.
- Discuss with the Team Leader and the PMU and confirm the priority areas and finalize the infrastructure investment subprojects.
- Identify any missing data or information and prepare scopes of work, specifications, and bidding documents for studies, investigations, and surveys to complete the necessary information required for detailed engineering design.
- Assess all viable technical options and identify the least-cost analysis and review and define design criteria and standards.
- Coordinate closely with the Electro-Mechanical Engineers, Geotechnical Engineers, and Structural Engineers to ensure technical designs are compatible.

- Coordinate closely with the Environmental Specialists to ensure compatibility of the design with the EMP.
- Prepare detailed engineering designs, cost estimates, specifications, and bidding documents for all selected subprojects.
- Incorporate lessons learned from the experience of PPWSA, SRWSA, into the design.
- Contribute to the final design report.
- Contribute to all necessary reporting under the project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

85. **National Electrical Engineer** (International, 12 person months)

- Assist the International Electro-Mechanical Engineer to prepare the designs, technical specifications, for all required electrical works to national design standards.
- Liaise with the International and National Mechanical Engineer regarding design issues and criteria.
- Liaise with the AutoCAD operators for the production of electrical drawings.
- Assist the International Electro-Mechanical Engineer to prepare detailed technical specifications, performance specifications, detailed cost estimates, and quantities relating to the electrical components.
- Contribute to the final design report.
- Contribute to all necessary reporting under the Project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

86. **National Mechanical Engineer** (International, 12 person months)

- Assist the International Electro-Mechanical Engineer to prepare the designs, technical specifications, for all required mechanical works to national design standards.
- Liaise with the International and National Electrical Engineer regarding design issues and criteria.
- Liaise with the AutoCAD operators for the production of mechanical drawings.
- Assist the International Electro-Mechanical Engineer to prepare detailed technical specifications, performance specifications, detailed cost estimates, and quantities relating to the mechanical components.
- Contribute to the final design report.
- Contribute to all necessary reporting under the Project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

87. **National Structural Engineer** (International, 9 person months x 2 positions)

- Assist the International Structural Engineer to prepare the structural designs for all required civil works structures to national structural design standards.
- Liaise with the International and National Geotechnical Engineers regarding design issues and criteria relevant to the prevailing soil conditions.
- Liaise with the AutoCAD operators for the production of structural drawings.

- Assist the International Structural Engineer to prepare detailed technical specifications, performance specifications, detailed cost estimates, and quantities relating to the structural components.
- Contribute to the final design report.
- Contribute to all necessary reporting under the Project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

88. **National Geotechnical Engineer** (National, 8 person-months)

- Assist the International Geotechnical Engineer to prepare scope of work and terms of reference for geotechnical surveys and investigations required for all subprojects.
- Provide day-to-day supervision of the geotechnical surveys and investigations and report to the International Geotechnical Engineer.
- Assist with the preparation of preliminary geotechnical designs, and assist with cost estimates for the detailed engineering designs.
- Assist the International Geotechnical Engineer to prepare detailed geotechnical designs for all subproject works, technical specifications, performance specifications, detailed cost estimates and quantities.
- Undertake regular inspections during construction to ensure that the geotechnical works comply with the design intent and report back any issues to the Team Leader and International Geotechnical Engineer.
- Contribute to the final design report.
- Contribute to all necessary reporting under the Project, as determined by the Team Leader.
- Assist in any other related works as deemed necessary by the Team Leader.

89. **National Procurement Specialist** (National, 12 person-months)

- Assist the PMU in establishing capacity to accomplish all procurement in accordance with the Royal Government of Cambodia and ADB policies and procedures, including the identification of responsibilities, requirements for approvals, oversight, documentation and reporting for all outputs.
- Support the PMU in the procurement of civil works, equipment purchase and installation, consulting services, and other contracts to implement the project for all outputs.
- Assist the PMU in preparing the necessary bid documents required for local and international competitive bidding. The bidding documents will include instruction to bidders; general and special conditions of contract, technical specifications, bills of quantities, tender drawings, and forms of contract. The specification will be detailed and use locally applicable standards as well as follow ADB procedures. The bill of quantities will be based on detailed calculations of quantities and costs estimates will be based on market prices. This shall be for all outputs.
- Assist the PMU in preparing bid documents for design and contracts including input data and status, output requirements, technical specifications, bills of quantities, tender drawings for all outputs.
- Assist the PMU in evaluation of bid proposals and preparing bid evaluation report, contract negotiations with the successful bidders and preparing contract documents for all outputs, including.

- Provide inputs for training and capacity development; coordinate with other team specialists to carry out the training program, and provide support to the capacity development activities for PMU and PIU staff.

90. **National Environment Specialist** (National, 12 person-months). The national consultant will support the international consultant in carrying out the tasks below:

- Support the PMU in ensuring the incorporation of relevant mitigation measures in the detailed designs, coordinated public consultations and disclosure/information dissemination with the social/resettlement team, and that the RGC's environmental assessment requirements will not cause delay in the commencement of the construction phase.
- Finalize and update the IEEs, DDRs, and EMPs, as necessary, based on the detailed engineering designs, and ensure consistency, where applicable, with other safeguard plans.
- Support the PMU in preparing for procurement by: (i) ensuring that the SPS-compliant EMP is part of the bidding documents and civil works contracts; and (ii) establishing and incorporating environmental criteria, scoring and weight in the evaluation of bids in coordination and agreement with the procurement committee.
- Support the PMU in ensuring that contractors prepare their respective contractor's EMP (C-EMP) based on the SPS-compliant EMP and actual site conditions and in evaluating the contractor's EMPs (C-EMPs).
- Support the PMU in preparing for the activation of the grievance redress mechanism, undertaking pre-construction environmental quality monitoring as recommended in the EMP, and reviewing/evaluating Contractor's EMPs to ensure they are fully responsive to the SPS-compliant EMPs.
- Design a tool or system to facilitate effective consultations, monitoring/inspection and reporting by the PMU.
- Coordinate with the MOE and TSA on regulatory compliance issues—for water quality in the the Tonle Sap, noise and dust from construction sites, sanitation in workers campsite, etc.
- Provide training lectures and seminars on the EMP and its implementation.
- During construction and operation, guide the PMU in supervising, monitoring, and reporting EMP implementation.
- Assess the operation and observance of the grievance redress mechanism, and recommend improvements.
- Review the results of the environmental effects monitoring. Recommend investigations and recommend corrective actions, as necessary
- Support the PMU and PIUs in follow up consultations.
- Conduct visits to work sites to provide guidance to, and advise the PIUs and operators on environmental management concerns arising during project construction and operation, respectively, and recommend corrective measures.
- Prepare the necessary status reports for compliance with the conditions set out in approved Royal Government of Cambodia's IEE/EIA Reports.
- Review draft monthly and semi-annual environmental monitoring reports (EMRs) prepared by the PMU, and finalize the monthly EMRs for input to the PMU's monthly progress report and semi-annual EMR for submission to ADB.
- Ensure that ADB's environment safeguard categorization remains B. Recommend measures to ensure effective EARF and EMP compliance/ implementation, as necessary.

- Ensure that capacity development in environmental management is carried out through “hands on” training during the implementation of the EARF and EMPs, through lectures, seminars and other activities on the EARF and EMP implementation.

91. **National Resettlement/Social Development/Gender Specialist** (National, 12 person-months). Assist international resettlement/social development specialist expert with:

- Prepare a detailed action and monitoring plan and design an implementation framework for the implementation of the project's social inclusion, poverty and gender measures and targets in the DMF, GAP, and SPRSS with clear timelines, costing/budgets and responsibilities and prepare a standard template for monitoring social inclusion and poverty reduction measures.
- Coordinate the implementation of the project's social inclusion, poverty and gender measures as reflected in the project's GAP, SPRSS, Stakeholder Communication Strategy and Participation Plan, with relevant stakeholders including the civil contractor, PWWs, PIUs, NGOs, civil society, local communities to ensure that these measures and targets are implemented in an inclusive and effective manner.
- Provide social and gender awareness training (at least 70% male participation) to MIH/DPWS/PMU and PIUs and relevant stakeholders on social and gender measures and its implementation, monitoring, review, reporting and evaluation process.
- Provide support to MIH/DPWS/PMU and PIUs to develop greater gender sensitive and responsible policies.
- Support female PMU staff training (at least 30% female) in appropriate levels of knowledge on planning, design, financial management, procurement, and operation and maintenance of project facilities.
- Engage in advocacy with NGOs/CSOs partners in IEC campaign and delivery of training on how to apply for new connection subsidies targeting especially poor households with 50% female participation.
- Support design of IEC campaign materials to ensure they are simple, gender sensitive, and available in local languages.
- Ensure the collection of relevant sex disaggregated statistics for all project activities in the development of the PPMIS, and guide implementing agencies on how to collect and use sex disaggregated data for input into project PPMIS quarterly, mid-term, and final reviews, and bi-annual GAP Progress Performance reports as per ADB template.
- Continue to track and record, review and update social and gender progress and results from the project in a systematic and easily acceptable form, linked to overall project results.
- Assess and address any inadequacy in social inclusion and gender provisions, and identify remedial actions to review or strengthen social and gender measures if required.
- Ensure that all review missions include consideration of social and gender progress, involve consultation with men and women beneficiaries and include social and gender reporting in mission reports by providing technical support to mission teams.
- Assist the PMU and to review and update the resettlement DDRs as per the detailed design.
- Assist the international Resettlement/Social Development/Gender Specialist and provide necessary support and capacity building to MIH and the Waterworks' staff for

DDR implementation, including orientation and training on the activities and implementation mechanisms to PMU and PIUs.

- Assist PIUs with consultations and finalization of DDRs based on the detailed design to reflect any change in impacts, mitigation measures, costs and monitoring plans along with including updated budget and implementation schedules, as required. Ensure that ADB's resettlement and indigenous peoples safeguard categorization remains C.
- Assist PMU in implementing the updated DDRs with a focus on community consultation, and grievance procedures.
- Assist the PMU to establish and implement procedures for ongoing internal resettlement monitoring.
- Work closely with the local authorities and assist PMU in obtaining local and national clearances and approvals.
- Establish and implement liaison mechanisms to ensure proper technical and logistical support between the project to the PMU, local administrative authorities, resettlement committees and concerned government departments.
- Assist the PMU in conducting public information campaigns and community participation.
- Assist in updating the public information booklets as necessary.
- Ensure compliance with relevant Royal Government of Cambodia laws and regulations and the ADB SPS (2009) for all project components.

92. **National Human Resource/Training Coordinator** (National, 12 person-months). The national consultant will support the international consultant in carrying out the tasks below:

- Carry out initial training needs assessment and participant identification in PMU and in the project towns to cover public infrastructure planning and implementation, operation and maintenance, financial management and cost recovery, procurement, social and environmental safeguards, monitoring, reporting and evaluation, solid waste management, environmental management and climate resilience.
- Select a representative set of participants for the training program.
- Prepare training course designs covering all the aspects mentioned above.
- Provide advice to PIUs on support management, including general administration, logistics and back-up services for the training courses.
- In collaboration with PIUs, undertake primary responsibility for administering the training functions, running the sessions and ensuring that all management support requirements are clearly communicated well in advance to respective PMUs and the other offices involved.
- Carry out course evaluations, customized for the different target groups making up the set of participant, and involving a mix of questionnaires and interviews.
- Identify the sources for potential future trainers with the capacity for undertaking subsequent long term capacity-building and suggest the level of additional training such trainers may require.
- Make recommendations for the type of operational and training manuals that may be required for implementing long term capacity-building programs, with an outline of the contents and the resources required for drafting such manuals.
- Based on the findings of the pilot activities, make outline recommendations for the form and content of a long term program and identify the options for enhanced sustainability and institutionalization of the proposed program.
- Engage local university and/or vocational training institute and/or any other local education institution for long term engagement on skill and capacity building.

93. **National Financial Management/Accounting Specialist** (National, 44 person-months).
The national consultant will support the international consultant in carrying out the tasks below:

- To (i) assist in preparing good quality and timely submission of the monthly, quarterly and annual project financial statements, (ii) ensure that the PMU has taken proper actions to make sure that the auditor's TOR has been approved by the Government and ADB, the selection and the engagement of the auditor are in compliance with the guidelines, auditing arrangements have been made and monitored to support the good quality, complete and the timely submission of audited annual project financial statements, and if the government's audits were either not satisfactory or not applicable and/or not available, ensure that the PMU can allocate adequate funding to appoint private auditor, and (iii) ensure that the PMU provide good quality financial statements and help audit satisfactorily complete their assignment.
- Plan and organize financial management training seminars for the accounting staff in the PMU and two PIUs. The training will cover loan disbursement procedures and financial management practices for ADB financed projects including but not limited to ADB procedures and requirements as described in the Loan and Disbursement Handbook of ADB (2012).
- Install good practices and knowledge for project accounting by providing on job training.
- Identify any issues in the financial management system for project implementation in the PMUs and recommend measures to address the issues identified.
- Advise PIUs on organizational arrangements for effective financial management for project implementation.
- Assist PMU and PIUs to develop procedures for financial accounting, reporting and auditing and loan disbursement for the project.
- Guide and assist PMU to process loan withdrawal applications in accordance with ADB's procedures. Assist the executing agencies to coordinate with the PMUs and communicate with ADB in relation to financial management and loan withdrawal matters.
- Support PMU to prepare documents for loan withdrawal including certificates, imprest account reconciliation statement, summary of expenditure sheets, and reporting formats for efficient and effective flow of funds between ADB, government, PMU, PIUs, other relevant local government departments and contractors.
- Assist PIUs to prepare and update continuously financial records, projections, and reports of the project in accordance with procedural requirements of ADB and the government.
- Review current budgeting, accounting, and financial reporting in the PMU and PIUs 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.
- Review internal control systems in the PIUs and recommend improvements for internal control systems in the PIUs.
- Assist the PIUs to (i) develop and continuously improve monitoring system on financial statements and audited annual project financial and economic statements; (ii) communicate directly, or facilitates the EA's staff to communicate, with staff of implementing agencies (IAs), ADB resident mission, project team leader and other stakeholders on further actions; (iii) ensure compliance with ADB's financial management and audit requirements by reviewing, validating, monitoring and

evaluating project teams' implementation status of audited recommendations; and
 (iv) act as PIU's focal point for all financial management, reporting and audit matters.

94. **Resident Engineers** (National, 33 person-months x 3 positions)

- Carry out overall supervision of the works on site and assure quality of construction.
- Review the Contractor's monthly statements and prepare Payment Certificates.
- Issue any variation orders regarding the quantities of the works and the period for completion of the works after obtaining the approval of the contracting authority.
- Supervise and monitor construction of all project components, prepare measurements for works completed and in progress and verify bills for payment to the contractors and suppliers.
- Ensure contractors adhere to the provisions of the land acquisition and resettlement plans and the environmental management plans.
- Attend third party inspections, as necessary, and provide certification on the quality of the supplies based on such inspections.
- Monitor and enforce the measures taken to ensure safety of the workers, other project personnel, general public and works.
- Furnish detailed drawings, with revisions as necessary, to the contractor.
- Regularly monitor physical and financial progress against the milestones according to the contract to ensure completion on time.
- Assist the Implementing Agency in the resolution of various other contractual issues and overall contract management.
- Approve "as built" drawings.
- Prepare the Taking-over Certificate, and Final Acceptance Certificate.

95. **Site Engineers** (National, 33 person-months x 4 positions)

- Assist the resident engineer in all tasks.
- Check correctness of the contractor's setting out related to all survey reference markers provided by the relevant authorities.
- Inspect the works, and check to ensure compliance with the specifications and drawings.
- Check line levels and the layout of construction to ensure conformity with the contract, and propose any change in the plans, if required.
- Witness testing of all materials and equipment arriving at the site to ensure compliance with the specifications.
- Continuously monitor the contractor's work program and progress, quality of work, site safety, equipment and material orders and deliveries, environmental issues, etc. If necessary instigate corrective actions in accordance with the conditions of contract.
- Maintain a daily works site logbook recording works site events and instructions given to the contractor, and other relevant information, which may at a later date be of assistance in resolving queries or dispute—in particular, records shall be kept of the contractor's activities, including equipment and labor on site. Relevant information concerning weather conditions, equipment breakdown and other factors affecting work progress will also be recorded.
- Supervise the contractor in all matters concerning site health, safety and environment.
- Examine contractors' claims for time extension, variations, additional compensation etc. and recommend appropriate decisions.

- Review and recommend for approval the contractor's "As Built Drawings".
- Inform the Resident Engineer of any potential problems, which may arise in connection with the construction of the works, and provide recommendations and possible solutions.

96. **AutoCad Operators** (National, 15 person-months x 4 positions)

- Develop and prepare all drawings as requested by the Team Leader and international and national technical specialists.
- Provide soft and hard copies of as directed by the Team Leader.
- Ensure correct filing and storage of all hard and soft copy drawings, including systematic and regular back-up of soft copies.

VII. SAFEGUARDS

A. Environmental Safeguards

97. The project is classified as Category B for environment in accordance with ADB SPS (2009). The proposed subprojects are not expected to cause irreversible adverse environmental impacts. Initial environmental examinations (IEEs) have been prepared for six subprojects (Kampong Cham, Kampong Thom, Stung Treng, Pursat, Siem Reap, and Svay Rieng). Environmental DDRs have been prepared for three subprojects (Kampot, Sihanoukville, and Stoung) to address minimal environmental impacts limited to the boundary of existing facilities. Potential impacts of climate change and/or natural hazards on the project have been integrated into the IEEs and environmental DDRs with recommendations for consideration during the design stage. Also, the revised IEEs and environmental DDRs will put additional emphasis on the following issues:

- (i) Siem Reap subproject - identification of relevant requirements that should be obtained from the APSARA Authority (including UNESCO World Heritage Committee, if applicable). Of particular concern are the requirements that have to be coordinated or obtained prior to project approval (i.e., pre-development consent).
- (ii) Strengthened discussions on occupational and public safety on the use of chlorine gas for disinfection. Of particular interest is the provision/procurement of adequate safety equipment (e.g., personal protective equipment), emergency procedures (during leaks/spills, etc.), and regular training including simulated drills.

98. Six of the subprojects involve WTP replacement and rehabilitation, and extension of distribution systems in which potential adverse impacts are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures. IEEs inclusive of EMPs are prepared for these six subprojects.

99. Three subprojects take place within the confines of the water treatment plant property and involve replacement of mechanical equipment, with minor exceptions: two involve construction of concrete storage tanks in Kampong Thom and Sihanoukville. Short feasibility studies are prepared for these subprojects and EMPs have been included in the environment DDRs conducted for these subprojects and relevant mitigation measures to be implemented by the construction contractor are included in the environment DDRs.

100. Mitigation measures for identified impacts are included in the EMPs. Initial costs for developing and implementing the EMPs have been estimated for inputs to project costing. At the detailed design stage, as IEEs and 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. The final EMPs, cleared by ADB (Manila), will form part of the contract bidding documents. EMP implementation will be ensured by a designated Environment Officer in the PMU. The roles and responsibilities are detailed in the respective EMPs. Environmental considerations during design and allocation of sufficient budget for O&M 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 after the approval/endorsement of the EAs.

B. Social Safeguards

101. The category for involuntary resettlement category is “C” with no land acquisition and resettlement (LAR) impacts and the category for indigenous people is “C”, in accordance with the requirements outlined in OM/F1 and ADB’s Safeguard Policy Statement (SPS) 2009. Due diligence has been conducted for each subproject and has confirmed that none of the subproject components will involve any LAR impacts. Most of the infrastructure components for the subprojects are within existing waterworks compounds and will not require land acquisition. All distribution/pipeline network components have minimal working widths and will be installed on the edge of road shoulders or easements, which are part of existing rights-of-way (ROWS) that are free from encroachment, are wide enough to accommodate digging of trenches. However, any temporary impacts during construction that involve replacement of old pipes and expansion of new pipelines, including other unanticipated impacts, will be addressed during implementation based on actual impacts and in accordance with the national laws and ADB’s SPS. Civil works contracts will require contractors to restore the ROW to their original condition after installation of pipes is completed. A loan covenant is included that “any component that involves LAR and triggers ADB’s Safeguard Policy Statement will be excluded from the subproject during implementation”.

102. Resettlement DDRs have been prepared in consultation with local communities and are in accordance with ADB’s SPS 2009 and government regulations. Effective monitoring at all stages of subproject implementation will be ensured. A grievance redress mechanism will help to facilitate resolution of complaints regarding project performance. The resettlement DDRs will be updated after DED to identify and confirm any LAR impacts and will be addressed and mitigated in accordance with ADB’s SPS. All the DDRs, IEEs, and EMPs will be updated and disclosed after DED and cleared by the government and ADB prior to contract awards. In compliance with ADB’s information disclosure and consultation requirements, the safeguard documents will be posted on ADB’s website.

C. Ethnic Minorities

103. There is no impact on any ethnic minority groups in any project areas as the works will be limited to replacement of equipment within the existing water works area and easements of the roads. Field investigations and discussions with EA suggest that the sub projects do not impact any ethnic minority groups and a standalone IPP is not required. Any unanticipated impacts during project implementation will be addressed in accordance with the ADB’s SPS (2009). A grievance redress mechanism will be established to facilitate resolution of complaints regarding project performance.

VIII. GENDER AND SOCIAL DIMENSIONS

104. During project preparation, a socio-economic survey was conducted in the four pilot subproject areas to determine the socio-economic and gender characteristics of the target Project beneficiaries in the nine subproject towns. The baseline data and assessment results supported the preparation of the poverty, social and gender analysis report on the nine subproject areas which identified the poverty, social and gender issues, risks, needs, priorities and opportunities for the beneficiaries. Based on this assessment, a summary poverty and reduction strategy (SPRSS), gender action plan (GAP) and stakeholders communication strategy (SCS) were prepared with measures to enhance project benefits and mitigate potential risks or negative impacts to the project beneficiary population.

105. The project will improve public health and promote investment and employment opportunities that will benefit the 551,000 people in the nine towns/subproject areas, including the poor and vulnerable households living below the poverty line (average poor household monthly income of \$195 or KR794,625) that ranges from 0.9% to 30% between the towns. These are people that mostly live in peri-urban areas of these towns without adequate piped water supply, wastewater and solid waste collection and treatment services, and generally poor roads and non-existent drainage. They often experience serious water supply shortages (dry season), poor water quality, wastewater pollution, and poor urban environment. The poor have less capacity to cope with the pollution and degraded environments and in turn have increased exposure and risk to pollution of the air and surface and groundwater, which add to their existing level of poverty.

106. The project will bring benefits to households through access to reliable and safe water supply with social inclusive design features which ensures that: (i) domestic water supply connections will be made available under a range of subsidies (up to 100%) to 11,600 households; (ii) an appropriate tariff structure based on customer affordability and willingness-to-pay; (iii) opportunities to participate in project-related waged employment such as project construction and post project operations and maintenance activities; and (iv) IEC to train on consumers on who qualified for connection subsidies and how to apply for it.

107. Based on the gender analysis and proposed actions, the project is gender mainstreaming category II—effective gender mainstreaming (EGM). The GAP captures project benefits for women including (i) 10% employment in civil works construction, and O&M with equal pay and job conditions as men; (ii) women's participation in construction skills training and upgrading to enhance their formal employment opportunities; (iii) PMU staff trained in planning, design, financial management, procurement, and O&M of project facilities, of which 30% are women; (iv) the EA, PMU, and PIUs develop greater gender sensitive and responsible policies, promote gender awareness training (at least 70% male participation); (v) at least 25% female staff in the EA, PMU, and PIUs, with 10% women in the management at these entities with equal pay as men for similar positions by 2019; and (vi) NGOs/CSOs to be partners in IEC on applying for new connection subsidies, with 50% female participation.

108. The MIH/DPWS/PMU and PWWs/PIUs in the nine towns will be responsible for ensuring that the social and gender measures and targets are implemented, properly resourced and monitored. A full-time national social and gender specialist will be appointed in the PMU to work with gender focals in each of the PWWs/PIUs to coordinate the GAP preparation, implementation and monitoring; and sex disaggregated data will be collected and used to monitor the GAP implementation and impact, and reporting during 6-monthly and mid-term reviews and PCR using the ADB GAP reporting template. The project implementation consultants will include national (12 person-months, intermittent) and international (2 person-months, inter-mitten) to support the PMU social and gender officer. The GAP table is below.

GAP Table

GENDER ACTION PLAN (GAP)	
Project Outputs	Proposed Gender Mainstreaming Design Measures and Targets
Output 1: Existing Water Supply Systems Improved in Seven Towns	<ul style="list-style-type: none"> At least approximately 194,500 women and girls will benefit from improved water supply services in the seven towns, including 2,000 new HH connections in Kampong Cham and Svay Rieng supplying approximately 5,200 women and girls will receive continuous, reliable and safe potable water supply. At least 10% women employed in project civil works construction and post project O&M activities with safe work working conditions, equal pay for work between male and female workers, and payment to be paid directly to female employees. Ensure all HHs in the towns with new connections, receive equal access to the system of subsidized connections. At least 50% female participation in consultation meetings and FGDs on project design and implementation. Ensure NGOs/CSOs to be partners in IEC campaign and delivery of training on how to apply for new connection subsidies targeting especially poor HHs with 50% female participation. NGOs/CSOs to partner contractors in providing training to all construction workers and the community to prevent the risk of HIV/AIDS/STDs and other diseases, and address issues associated with occupational health and safety, as part of contractual responsibility of contractors.
Output 2: New Water Supply System for Stung Trend	<ul style="list-style-type: none"> At least 4,600 HHs and approximately 11,720 women and girls will receive continuous, reliable and safe potable water supply At least 10% women employed in project civil works construction and post project O&M activities with safe work working conditions, equal pay for work between male and female workers, and payment to be paid directly to female employees. Ensure all HHs in the towns with new connections, receive equal access to the system of subsidized connections. At least 50% female participation in consultation meetings and FGDs on project design and implementation. Ensure NGOs/CSOs to be partners in IEC campaign and delivery of training on how to apply for new connection subsidies targeting especially poor HHs with 50% female participation. NGOs/CSOs to partner contractors in providing training to all construction works and the community to prevent the risk of HIV/AIDS/STDs and other diseases, and address issues associated with occupational health and safety.
Output 3: Water Supply Coverage Increased in Siem Reap	<ul style="list-style-type: none"> At least 5,000 HHs and approximately 13,000 women and girls will receive continuous, reliable and safe potable water supply At least 10% women employed in project civil works construction and post project O&M activities with safe work working conditions and equal pay for work between male and female workers, and payment is to be paid directly to female employees. Ensure all HHs in the towns with new connections, receive equal access to the system of subsidized connections. At least 50% female participation in consultation meetings and FGDs on project design and implementation. Ensure NGOs/CSOs to be partners in IEC campaign and delivery of training on how to apply for new connection subsidies targeting especially poor HHs with 50% female participation. NGOs/CSOs to partner contractors in providing training to all construction

	works and the community to prevent the risk of HIV/AIDS/STDs and other diseases, and address issues associated with occupational health and safety.
Output 4: Project Implementation, Support, Operation and Maintenance Development	<ul style="list-style-type: none"> • Contractors encouraged to train and upgrade the construction skills of all women in appropriate areas to enhance their formal employment opportunities. • MIH/DPWS/PMU and PIUs to develop greater gender sensitive and responsible policies; promote gender awareness training (at least 70% male participation) and provide training and employment opportunities to its female staff in technical and professional fields. • At least 25% female staff in EAs-MIH/DPWS/PMU and IAs – PIUs with equal pay as male staff for similar positions, by 2019, with at least 10% females in the management at these entities with equal pay as male staff for similar positions. • PMU staff trained in appropriate levels of knowledge on planning, design, financial management, procurement, and operation and maintenance of project facilities, of which 30% are women. • Full-time National Social and Gender Specialist to be employed in PMU and supported by PICs International (2 person-months, intermittent) and social (12 person-months, intermittent) gender specialists, to coordinate the implementation and monitoring of GAP with PMU and PWWs/PIUs; to collect sex disaggregated data, supporting the PPMIS quarterly, mid-term and final reviews, and bi-annual GAP reports.

CSO = civil society organization; CUSWP = Cambodia Urban Water Supply Project; EA = executing agency; FGDs = focal group discussion; GAP = gender action plan; HH = household; IA = implementing agency, ID Poor = identification of poor households program, IEC = information, education and communication; MIH = ministry of industry and handicraft; NGO = non-government organization; O&M = operation & maintenance; PCR = project completion report; PIU = project implementation unit; PMU = project management unit; PPMIS = Project Performance Management Information System; PWW = public water works, SGDS = social and gender development specialist, SRWSA = Siem reap Water Supply Authority; STI = sexually transmitted infections.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Expanded access to sustainable and safe water supply services for the urban population in Cambodia	<p>By 2025: The project will contribute to increasing access to safe water to 100% of the urban population in the project area, in line with the government's National Strategic Development Plan, 2014–2018 (2012 baseline: 88%)</p> <p>All public waterworks in Cambodia are financially autonomous by 2018 (2014 baseline: 2)</p>	<p>Reports and statistics from government agencies, development partners, and nongovernment organizations</p> <p>ADB loan review missions</p>	<p>Assumptions Government commitment to the provision of water supply continues. Government commitment to decentralization and corporatization of provincial waterworks is sustained.</p> <p>Risks Raw water sources are depleted. Government does not implement regulatory changes across the country.</p>
Outcome Water supply infrastructure and service provision improved in nine towns	<p>By 2019: Through about 438 km of new pipelines the urban population served in Kampong Cham, Siem Reap, Stung Treng, and Svay Rieng will be increased by more than 11,600 households (approximately 58,000 people, of whom 51% or 29,280 are women), with equal access to all households and subsidies of up to 100% for connections for the poor</p> <p>Real NRW levels reduced to less than 15% for all participating water utilities. Current NRW levels are inaccurate, but estimated to be at least 20%. Baseline NRW levels will be confirmed by 2015.</p> <p>MIH implements corporate principles at public waterworks and provides them with full financial autonomy. (2014 baseline: 1—SRWSA)</p> <p>Standard system of regulation and tariff-setting based on customer affordability, with full cost recovery, adopted by participating waterworks. The policy on subsidized connections for the poor applied by them uniformly. (2014 baseline: 1—SRWSA)</p> <p>All project stakeholders, including water end users, poor households, affected peoples, and civil society organizations are fully consulted through public and household consultations, and the media.</p> <p>Approximately 275,000 women and girls receive improved water supply services across the nine project towns.</p>	<p>Annual reports by provincial waterworks and MIH</p> <p>Project progress reports</p> <p>Project completion report</p>	<p>Assumptions Strong commitment and support from central and local governments and beneficiaries continues. O&M is prioritized and sufficient funds are allocated in annual budget.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Outputs 1. Existing water supply systems improved in seven towns	By 2019: New groundwater sources in Kampong Cham developed Seven existing water treatment plants in Kampong Cham, Kampong Thom, Kampot, Pursat, Sihanoukville, Stoung, and Svay Rieng rehabilitated Rehabilitation or new clear water storage tanks in Kampong Cham, Kampong Thom, and Sihanoukville completed Rehabilitation of pumping stations at Kampong Cham, Kampong Thom, Pursat, and Svay Rieng completed About 49 km of augmentation and replacement of water mains in Kampong Cham, Kampong Thom, Pursat, and Svay Rieng completed New water laboratories and equipment provided at Kampong Thom, Pursat, Sihanoukville, Stoung, and Svay Rieng Provision made for approximately 2,000 new household connections in Kampong Cham and Svay Rieng along new pipelines, with equal access to all households and connections for the poor subsidized up to 100% At least 10% of those employed in construction and post-project O&M activities are women and have safe working conditions and equal pay with men for equal work. (2014 baseline: 5%–10% on similar projects)	Project progress and project completion reports Baseline and follow-up surveys in project towns Construction records and evaluation reports, including GAP 6-monthly reports and midterm review	Assumptions Decision making by the executing agency and implementing agencies is timely. Commitment of government to institutional changes Appropriate tariffs imposed for cost recovery AFD-financed water treatment plant completed by 2017 to provide water to the new Siem Reap distribution zone Risks Lack of capacity in executing agency and implementing agencies may cause delays in project implementation New Ministry with no track record Unforeseen conditions affect construction.
2. New water supply system provided for Stung Treng	By 2019: Surface water intake, water treatment plant (approximate capacity 7,950 cubic meters per day), and about 354 km of new water transmission and distribution pipelines installed Provision made for approximately 4,600 new household connections, with equal access for all households and connections for the poor subsidized up to 100% At least 10% of those employed in construction and post-project O&M activities are women and have safe working conditions and equal pay with men for equal work. (2014 baseline: approximately 5%–10% on similar projects)	Project progress and project completion reports Baseline and follow-up surveys in project towns Construction records and evaluation reports, including GAP 6-monthly reports and midterm review	
3. Water supply coverage increased in Siem Reap	By 2019: About 41.5 km of new pipelines provided to distribute water from new water treatment plants financed by the AFD (in 2017) and JICA (in 2019) Provision for about 5,000 new household connections, with equal access for all households and connections for the poor subsidized up to 100% At least 10% of those employed in construction and post-project O&M activities are women	Project progress and project completion reports Baseline and follow-up surveys in project towns Construction records and evaluation reports, including GAP 6-monthly	

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	and have safe working conditions and equal pay with men for equal work (2014 baseline: 5%–10% on similar projects)	reports and midterm review	
4. Project implementation supported and O&M developed	<p>By 2019:</p> <p>Discrete NRW sections established in each participating provincial waterworks.</p> <p>The executing agency, PMU, implementing agencies, and PIUs develop greater gender-sensitive and responsible policies; promote gender-awareness training (at least 70% male participation), and provide training and employment opportunities to female staff in technical and professional fields</p> <p>At least 25% of staff and 10% of management positions in executing agencies, PMU, implementing agencies, and PIUs are women and paid as the same rate as men for similar positions. (2014 baseline: about 10% female staff)</p> <p>PMU staff trained in appropriate levels of knowledge on planning, design, financial management, procurement, and O&M of project facilities, and 30% of those trained are women. (2014 baseline: about 10% female staff)</p> <p>Contractors encouraged to train and upgrade the construction skills of women in appropriate areas to enhance their formal employment opportunities. (2014 baseline: 5%–10%)</p>	<p>Project progress and project completion reports</p> <p>Training records and evaluation of capacity development programs</p> <p>Organization's employment records and annual reports</p> <p>Construction records and evaluation reports, including GAP 6-monthly reports and midterm review</p>	
Activities with Milestones			Inputs
<p>1. Existing water supply systems improved in seven towns</p> <p>1.1 Complete detailed engineering design and bidding documents by June 2016</p> <p>1.2 Complete social and environmental safeguards approvals by September 2016</p> <p>1.3 Conduct bidding and contract award by March 2017</p> <p>1.4 Complete rehabilitation of water supply systems by March 2019</p> <p>2. New water supply system provided for Stung Treng</p> <p>2.1 Complete detailed engineering design and bidding documents by September 2016</p> <p>2.2 Complete social and environmental safeguards approvals by December 2016</p> <p>2.3 Conduct bidding and contract award by June 2017</p> <p>2.4 Construct water treatment plant and distribution system by December 2019</p> <p>3. Water supply coverage increased in Siem Reap</p> <p>3.1 Complete detailed engineering and bidding documents by September 2016</p> <p>3.2 Complete social and environmental safeguards approvals by December 2016</p> <p>3.3 Conduct bidding and contract award by June 2017</p> <p>3.4 Construct new distribution zone by December 2019</p> <p>4. Project implementation supported and operation and maintenance developed</p> <p>4.1 Provide management assistance, hands-on training to executing agency, PMU, implementing agencies, and PIUs, and conduct of training programs and workshops throughout the project</p> <p>4.2 Establish monitoring system to report on outputs and outcomes by June 2016</p> <p>4.3 Check and validate NRW, gender, and other baseline data by June 2016</p> <p>4.4 Identify potential opportunities for private sector engagement by June 2017</p> <p>4.5 Establish NRW units and implement NRW management program by March 2018</p>			<p>ADB:</p> <p>ADF \$34 million</p> <p>Government:</p> <p>\$3.40 million (estimated in-kind) to cover taxes and duties, counterpart staff, and office space.</p>

ADB = Asian Development Bank, ADF = Asian Development Fund, AFD = Agence Française de Développement GAP = gender action plan, JICA = Japan International Cooperation Agency, km = kilometer, MIH = Ministry of Industry and Handicraft, NRW = nonrevenue water, O&M = operation and maintenance, PIU = project implementation unit, PMU = project management unit, SRWSA = Siem Reap Water Supply Authority.

Source: Asian Development Bank.

B. Monitoring

109. Project performance monitoring will be based on the targets, indicators, assumptions, and risks in the DMF. Disaggregated baseline data for output and outcome indicators will be gathered prior to the project implementation, and will be updated and reported through the Project quarterly progress reports and after each ADB review mission. These quarterly progress reports will provide information necessary to update ADB's project performance reporting system.

110. Environmental mitigation measures and monitoring plans will be set out in the EMPs for all subprojects. The EMPs will be implemented by the contractors as a contractual obligation and the performance, monitored by the PIA consultants and PIU on a daily basis and reviewed by the PMU's Safeguards Management Officer. The PMU and the PIA consultants will ensure that the measures in the EMPs are in place before project commencement and requirements are included in any civil works contract and bidding documents financed by the ADB project. Likewise, environmental prevention and mitigation measures in the DDRs will be adopted by the relevant subprojects. The PIA consultants will be responsible for ensuring that the technical and environmental requirements are properly integrated in the detailed design and planning, and are implemented during construction and operation of the subprojects. The environmental monitoring report (EMR) shall be submitted on semi-annual basis.

111. Similarly, DDRs have been prepared for all subprojects confirming no LAR impacts. The DDRs will be updated after detailed design to identify and confirm any LAR impacts along the distribution pipeline network alignment. All identified impacts will be addressed and mitigated in accordance with ADB's SPS. The DDRs will be updated and disclosed after detailed design and cleared by the government and ADB prior to contract awards. In compliance with ADB's information disclosure and consultation requirements, the safeguard documents will be posted on ADB's website. PIA consultants will ensure that the contractors restore the ROW area to its original condition after installation of pipes is completed. PIA consultants will report these activities in the project monitoring reports on a quarterly basis.

112. Gender and social dimensions monitoring. The PIA consultants and PMU will be responsible for ensuring social and gender actions in the SPRSS, GAP, and Participation Plan are implemented and monitored. A full-time national social and gender specialist will be employed in PMU to coordinate the implementation and monitoring of GAP with PMU and PWWs/PIUs. The project will support employment of women in unskilled civil works construction and in post project O&M (targeting at least 10% in labor-intensive activities) and in government positions within the water sector (minimum 25% female staff, including minimum 10% in management positions) with equal pay as male staff for similar positions. The project will also support increased female professionals in the water sector through provision of training and employment opportunities to female staff in technical and professional fields; and training in planning, design, financial management, procurement, operation and maintenance of project facilities, of which 30% are female. The PMU will ensure that (i) contractors are encouraged to train and upgrade the construction skills of all women in appropriate areas to enhance their formal employment opportunities, (ii) construction labor camps are properly sited and managed, (iii) safe working conditions and equal pay for equal work to women and men workers will be provided, and (iv) no child labor is employed. NGOs will be engaged in IEC campaign to mitigate on health risks and train new consumers on how to apply for subsidised connections, public hygiene and sanitation awareness programs in Stung Treng. Implementation and monitoring will ensure 50%

participation of women in any community-based group consultations. The government and the PMU will ensure that civil work contracts and bidding documents under the Project include specific provisions to comply with the GAP and will monitor and report on the GAP performance indicators, making sure that all subproject data collected under the Project is disaggregated by sex.

C. Evaluation

113. ADB will review the project every six months. Each review will cover institutional administrative, organizational, technical, environmental, social, poverty reduction, gender mainstreaming, resettlement, economic, financial, and other aspects affecting the performance of the project and its continuing viability. The Government and ADB will jointly undertake a midterm review of the project within about 3 years of its start. The midterm review will focus on (i) project impact, (ii) implementation progress, (iii) the performance of consultants and contractors, (v) the status of compliance with covenants in the loan agreement, and (vi) the need for any midcourse changes in project scope or schedule to ensure full achievement of the intended impact. Within six months of physical completion of the Project, PIA consultants and PMU will submit a project completion report to ADB.

D. Reporting

114. The PIA consultants and PMU will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (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; (iii) bi-annual GAP Progress Performance Report using ADB template; and (iv) a project completion report within six months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project accounts and the EA annual financial statements, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

115. The PIA consultants and PMU will provide ADB with (i) quarterly progress reports in a Consultation and participation of project target beneficiaries, affected communities and stakeholders is required by ADB.²⁵ This exercise is done right through the project concept, design, preparation, implementation, and monitoring and evaluation stages.

116. Mindful of the above objectives and principles, a Stakeholder Analysis was undertaken in the lead up to the preparation of Stakeholder Communications Strategy (SCS) to identify key stakeholders that have a stake or interest in the project. These are the government and their representatives (MEF, MIH, MPWT, MRD, PWWs, PPWSA and SRWSA); private water utility companies, business sector/microenterprises, civil society/NGOs/community based organizations and affected residents/women/vulnerable groups.

117. Key informant interviews, focal group discussions and consultation meetings were undertaken with stakeholders in the early stage of the study and during the socio-economic survey (SES). The analysis was focused on their interests, perception of the problem, current resources and their mandate. Solutions to perceived problems were also solicited from them.

²⁵

As established in the Safeguard Policy Statement (2009) and Public Communication Policy (2011).

Using Table E.1 below, the assessment identified the major stakeholders and their respective interests and concerns.

118. The SCS is intended to ensure inclusiveness, transparency, timeliness and the meaningful participation of stakeholders in the project. Essentially, it provides a communication platform for all key stakeholders, particularly between the project's affected groups and the executing and implementing agencies, to ensure that the former's views and interests are fully integrated in the project design, implementation and monitoring systems through a regular flow of information and a two-way exchange. The SCS ensures that vulnerable groups, such as the poor, women and indigenous groups, who risk being marginalized, are provided with opportunities for communication and feedback during subproject design and implementation. In this way, the Strategy serves to inform and support community development, enhance government executing and implementing agencies capacity to manage project outcomes, enhance project benefits and mitigate negative impacts. Table E.2 below presents the SCS. It outlines key project stakeholders and their interests; and identifies key messages, means of communication, and timeline of delivery during the project cycle.

**Table E.1 - Stakeholder Analysis
Cambodia Urban Water Supply Project**

Stakeholders	Stakeholder's Interests	Perceived Problems	Resources	Mandate
Target Beneficiaries: consumers/end water users				
Underserved and unserved poor and vulnerable urban and peri-urban households in the subproject areas.	<p>To have access to reliable portable water supply and getting government assistance to pay for the perceived high cost of connection..</p> <p>Anticipate improvements to the household health and living standards and lessening of the burden of domestic activities on households and women in particular.</p> <p>Also concerned with the adequacy, reliability and quality of water supply in view of the supply and quality issues associated with the present urban WSS.</p>	<p>The lack of household affordability and willingness to pay – the high cost of water connection at around US\$100 is expensive for poor families and could deny poor households access to the system and safe drinking water. However, the poor are happy to pay the monthly tariff which is much cheaper than buying water from other current sources such as private water providers. Private water utilities operate in a monopolistic manner and are inefficient with poor infrastructure and charge excessive connection fees and tariffs.</p> <p>The poor will need to be informed about the WSSs connection and water tariff policy and how to apply for assistance.</p>	<p>Individual and family funds and assets</p> <p>Have the ability to make partial contribution to the cost of providing services and if improvements to sanitation can be marketed socially are able to provide most of the investment cost.</p>	Represent individual and community needs
Underserved and unserved non-poor urban and peri-urban households in the subproject areas.	<p>To have access to reliable portable water supply.</p> <p>Anticipate improvements to the household health and living standards and lessening of the burden of domestic activities on households and women in particular.</p> <p>Have the ability to pay for the provision of such services but</p>	<p>Municipal authorities have not in the past had either the resources or the political will to extend network coverage for water supply or provide necessary solid waste collection and disposal services.</p> <p>Having access to reliable information about the Project and its benefits.</p>	<p>Individual and family funds and assets.</p> <p>Not lacking the financial resources but require a sustained commitment by the supply entity. No need to subsidize services to be provided such as the cost of individual household connections.</p>	Represent individual and community needs

	need service providers to demonstrate reliable supply and good quality water.	Private water utilities operate in a monopolistic manner and are inefficient with poor infrastructure and charge excessive connection fees and tariffs.		
Inadequately served existing urban consumers.	Require services to be provided that are reliable and of sufficiently high quality to meet consumer demand.	<p>Municipal authorities have no commitment to providing efficient services or only understand supply-side issues rather than also demand-side issues.</p> <p>Private water utilities operate in a monopolistic manner and are inefficient with poor infrastructure and charge excessive connection fees and tariffs.</p> <p>Having access to reliable information about the Project and its benefits.</p>	<p>Individual and family funds and assets</p> <p>Affordability is not an issue but willingness to pay is linked to outcomes where services provided meet the demands of existing consumers.</p>	Represent individual and community needs
Women in the subproject areas	<p>Improved and reliable clean water supply to lessen the burden of domestic work and improve the household's home environment and living standards.</p> <p>Women's mobilization and inclusion/participation in the consultation on the Project design and implementation, training, IEC on hygiene and sanitation; and to have a fair share in the Project benefits including employment in construction and IAs and livelihood opportunities.</p>	Women note the unequal burden arising from the lack of reliable portable water supply and poor environmental sanitation, women's traditional domestic role, the lack of employment and participation in community decision making.	Individual and family funds and assets	Represent individual and community needs.

Government				
Ministry of Finance (MOF)	<p>Responsible for the overall management of government finance and budget and the negotiation of overseas development assistance (ODA).</p> <p>Recipient of ADB loans, negotiates and signs loan agreements and responsible for loan disbursement and repayments.</p> <p>Secure an ADB loan of US\$37 million to fund the Project.</p> <p>Effective and timely implementation of the Project and ensure that ADB policies and Government financial and procurements policies and regulations are properly followed and complied with.</p>	<p>Project funding has to be on acceptable terms and loan will require proper prioritization, design and loan due diligence, negotiation and approval.</p> <p>Lack of capacity and experience in the MIH and IAs to manage the design and effective implementation of the Project.</p>	GoC funds and assets and Government budget and staff.	GoC financial policies, laws and regulations
Ministry of Industry and Handicraft (MIH) – Department of Potable Water Supply (DPWS)	<p>Responsible for the urban water sector and promoting development of improved and reliable potable urban water supply systems in Cambodia's towns and cities.</p> <p>Secure an ADB loan of US\$37 million and the Project is designed and implemented soonest to address the urgent need for water supply improvements such as the expansion of water distribution pipes in unserved areas in Siem Reap</p> <p>Effective and timely implementation of the Project and ensure that ADB policies and Government financial and</p>	<p>People in the nine subproject towns lack adequate and reliable potable water supply contributing to a high incidence of water borne diseases and poor hygiene and sanitation in households.</p> <p>Private water utilities serving the towns and cities numbering around 148 provide poor service with high connection fees and water tariffs with the poor being generally excluded.</p> <p>Lack of funding is a constraint on the progressive development of WSS in Cambodia's towns and cities in line with national plans and</p>	Government budget, assets and staff and ADB loan	GoC/MIH policies and legislation for provision and regulation of urban water supply.

	<p>procurements policies and regulations are properly followed and complied with - have a stated preference to ultimately reduce supply of water by existing private operators and provide more effective service.</p> <p>Regulate drinking water quality standards and service levels, controls implementation of expenditure (except PPWSA), supervises through provincial line agencies service provision and performance of Siem Reap autonomous water supply operators and 13 provinces, licenses private operators, and regulates all public and private operators</p>	<p>proprieties.</p> <p>Lack of capacity and experience in the MIH and IAs to manage the design and effective implementation of the Project.</p> <p>There is a demonstrated demand for the provision of better quality water supply services in most urban towns and cities that will be corroborated during the course of this PPTA by the TA Consultants via the processes of participatory stakeholder engagement, to which MIH has agreed to support.</p> <p>The Project preparation, design and implementation is a lengthy and time consuming process.</p> <p>Appropriate connection fees and tariff policies have to be applied to ensure full cost recovery and the profitability and financial autonomy of PWWs but this will have to be balanced with access for the poor.</p>		
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Ministry of Public Works and Transport	<p>Responsible for developing and operating urban sanitation and waste water systems in the subproject towns of Sihanoukville, Siem Reap and Battambang, through the DPWT including the management of solid waste disposal.</p> <p>Urban water supply and sanitation/waste water systems are co-dependent where the provision of one without the other undermines the full effect of achieving improved hygiene and sanitation for households in urban areas.</p>	<p>The present urban water supply systems are unreliable and inadequate which limits the extent and scope of promoting sanitation development in urban areas.</p> <p>Urban sanitation facilities are very limited and exist in a very embryonic form and even when it has assumed responsibility for urban sanitation systems such as the EU financed engineered urban wastewater system in Battambang it has not been a very effective manager of such facilities.</p>	<p>Government budget, assets and staff</p> <p>The supply of water appears to be a higher priority among providers of ODA, for which MPWT is heavily dependent for financing urban sanitation facilities and probably better if local authorities were to be mandated with responsibility for operating and maintaining these facilities.</p>	Mandated to oversee the implementation of urban sanitation programs in Cambodia.
Municipal Authorities in the subproject towns	<p>Support and promote the development of improved and reliable portable water supply for their town residents including poor households.</p> <p>Would like to appropriate such a role for them but are frustrated because they are unable to secure such a mandate.</p>	<p>Municipal Authorities presently have no direct role or control over urban water supply development which is the provided by MIH through the public WSS and private operators.</p> <p>Municipal authorities have no commitment to providing efficient services or only understand supply-side issues rather than also demand-side issues. They presently lack delegated authority since the process of decentralization of powers to local governments is still in transition and will take several more years to complete.</p>	<p>Municipal Authorities income, resources and assets.</p> <p>Affordability is not an issue but willingness to pay is linked to outcomes where services provided meet the demands of existing consumers. Authorities are frustrated because they cannot provide such services.</p>	Lack authority to oversee management and operation of water and sanitation utilities even though Cambodia's Law on Decentralization and Deconcentration is being implemented but at a very slow pace
DIHs at provincial level	Supervise MIH regulations on drinking water quality and standards of service, license private operators and regulate tariffs.	Possess the institutional mandate but lack the institutional and financial capacity to support MIH at the provincial level or below. The relevant legislation has just been passed but MIH will take	Government budget and staff. Lack the resources and no indication when or if they will be adequately resourced.	Have the mandate through Government policies and laws to provide supervisory and regulatory oversight.

		some time to roll out the implementation linked also to the renewal of licenses of private water supply operators.		
Department of Rural Water Supply)	Under direction of Ministry of Rural Development (MRD) is responsible for the provision of water supply in rural communities and Department of Rural Health Care for hygiene promotion and sanitation programs.	<p>Need for improved and reliable potable water supply and sanitation services to rural Cambodian households and will require closer consultation with MIH in the implementation of the Project, especially in terms of IEC for improved hygiene and sanitation.</p> <p>There is unclear demarcation between DIHs and DRWs in peri-urban areas of these towns and cities. In some subproject areas where there is a degree of ambiguity between the administrative boundary of town and countryside in peri-urban areas there might be some overlap.</p>	Government budget and staff. Additional resources largely dependent on providers of ODA. ADB has provided a series of grants and loans under several projects for water supply but not sanitation.	Have the mandate through the Government's policies and laws to provide supervisory and regulatory oversight and carry out rural water and sanitation development activities.
Institutional Agencies				
EA, IAs, PMU, PIUs, PIC	<p>Project design/planning, implementation and monitoring and reporting/documentation</p> <p>Project consultants' selection, contracting and management.</p> <p>Project tendering/procurement implementation and management</p> <p>Conduct Project consultation meetings with all key stakeholders and solicit feedback on the Project</p>	<p>Implementation of government policies on provision of reliable urban water supply systems utilising ADB project loan and industry best practice and technology taking into account Cambodia's context and needs of the subproject towns.</p> <p>Institutional capacity to coordinate project design and implementation complying with ADB's process and requirements.</p>	Government and Project budget, assets and staff	Mandated by MIH and Legislature to acquire loan and implement the Project.

Private Sector and SOEs				
Private water utilities serve about 10 percent of the urban population in Cambodia including the nine subproject towns. There are about 148 licensed private water utilities and some reports claim that there are another 200 unlicensed private providers.	<p>To operate profitable and sustainable water supply businesses.</p> <p>Are seeking to maintain their share of the market because of investments they have made but many aware that with improved PWWs on a larger scale existing customers are likely to be lost.</p>	<p>The commercial threat from PWWs is real because in Cambodia's case, they have superior technology and systems and are more efficient than private operators that charge excessive tariffs and provide poor quality or untreated water and poor service.</p> <p>The new MIH policy and legislation will scrutinize the tariff and service levels of private water operators which can threaten the renewal of their license and business continuity if they fail to meet the standards.</p> <p>Private water utilities can charge what the market will accept and are more expensive than PWWs but are still less expensive than private water vendors (e.g. average tariff is KMR 2,500 per cubic meter compared to KHM 10,000 per cubic meter for water vendors).</p>	<p>Private water providers utilize own resources and assets.</p> <p>Fill a void that exists because system-wide network of water supply authority does not exist but generally poorer and more vulnerable households cannot afford to purchase water from these providers.</p>	DPWS are required to license private water providers but perhaps as many as 20% of such providers are unlicensed.
Business organizations operating in the nine subproject towns	<p>To operate profitable businesses and investments.</p> <p>Have access to reliable and clean water that is affordable which will support business expansion, new investments and reduce business operating costs.</p>	<p>Current water supply systems in the nine subproject towns are unreliable, inadequate and expensive in instances where private water utilities are involved and non-existent in unserved areas.</p> <p>Businesses suffer from the lack of water, investments are stalled and some face high operating costs from running their own well operated systems and are supplied by</p>	Own company funds and assets	Represent individual and collective business interests

		expensive private water utilities.		
Phnom Penh Water Supply Authority (PPWSA) is autonomous from MIH and other governmental agencies, is listed on Cambodia's Stock Exchange, and is considered a world class provider of water, including to poor and vulnerable households.	<p>Is seeking to maintain its reputation as a world class provider of water in Phnom Penh while also generating acceptable returns on its capital investments.</p> <p>Sets the benchmark and business model of a successful public water utility in Cambodia and internationally which can be scaled up in other towns and regions across Cambodia.</p> <p>Can support institutional capacity building and assistance in setting policies on connection fees for the poor and low income households and block tariff policy setting.</p>	<p>There is a lack of effective cooperation between PPWSA and PWWs and the opportunity should be promoted to take advantage of the institutional knowledge and experience that PPWSA has to offer. However, MIH's political leadership is committed to ensuring that this will happen and that the PPWSA model will be replicated all over Cambodia. For example, PPWSA is assisting SRWSA with through the transfer of skilled management from the former to the latter.</p> <p>PWWs should be more proactive and seek support and assistance from PPWSA.</p>	The world class status of PPWSA has also been greatly facilitated by significant grants of ODA finance but more importantly the economies of scale mean it will be quite difficult for water supply authorities outside of Phnom Penh to replicate the successes of the PPWSA.	Mandated originally as a public sector agency to supply water but with corporatization it has effectively been turned into a public company able to raise capital through the issuance of shares on the recently established Phnom Penh Stock Exchange.
Siem Reap Water Supply Authority (SRWSA)	<p>To provide improved and reliable potable water supply to meet Siem Reap's growing needs with a target of 8,000 new connections under the Project.</p> <p>To operate a profitable and sustainable water utility business with full financial autonomy and high quality customer service standards and water products.</p>	<p>The lack of reliable and adequate water supply is a major constraint to Siem Reap's growth and development especially in relation to tourism. It also degrades the resident's living standards exposing them to high incidence of water borne diseases and unhygienic and poor sanitation living conditions and environment while reinforcing poverty for low income households.</p> <p>The lack of capital is a constraint to SRWSA being able to implement its infrastructure and business</p>	SRWSA funds, assets and staff and ADB loan	Has legal autonomy to operate as an autonomous public sector water utility.

		growth plans.		
Donors/Overseas Development Assistance (ODA)				
Development Partners (ADB, AFD, JICA, SNV, UNHABITAT, UNICEF, USAID, WB/WSP, WHO and GRET.	<p>Support the Government's national policy and programs to promote improved and safe portable water supply to the urban and rural population in Cambodia.</p> <p>Donors assistance range from providing knowledge and technical assistance to support government, partners and other stakeholders overcome barriers to scaling up access to water and sanitation services to improving access to safe water for those living in major cities to specifically targeting poorer and more vulnerable groups gain access to water and sanitation services.</p>	<p>Many donors are involved in Cambodia's water sector but there is a need for donor coordination to optimize the use of scarce resources and capacity and avoid duplication.</p> <p>Some dichotomy between development partners as to whether investments should be more evenly made in rural areas where the majority of Cambodia's population lives or in rural areas where population growth rates are higher and more rapid economic growth.</p>	Resources range from loan monies for investment in productive services (focus more on water supply systems than urban sanitation systems) to grants for sanitation improvement programs (especially those associated with WASH) to technical capacity support building	<p>ADB (WSS and urbanization prioritized in CSP), AFD (non-sovereign loans to productive sectors); JICA (improving access to safe water for those living in major local cities); SNV (develop capacity of local NGOs to support WASH multi-stakeholder platforms0; UNHABITAT (water supply and sanitation activities under MEK-WATSAN to Kampong Thom, Kampong Cham, Pursat, Svay Rieng and Kampot; UNICEF (promoting access to suitable technologies for safe water, sanitation and hygiene in local communities); USAID (improving water, sanitation and hygiene practices targeted at vulnerable households); WB (assist government and municipal authorities in providing towns and growing peri-urban areas with potable water and sanitation services); WSP (working to overcome barriers to scaling up access to water and sanitation services by private water utilities; WHO (support guidelines for drinking water quality that include normal chemical, bacteriological and physical parameters; and, GRET (support for local private</p>

				investors to set up small-scale piled water systems and specific support to Kampot Water Supply Authority)
Civil Society/Non-Government Organizations (NGOs)				
Civil society groups that consist largely of NGOs in Cambodia but may also include local community groups that are largely unrecognized either within the NGO community because they have not been formally incorporated or officially because they have not applied for legal incorporation have an interest in water and sanitation issues although most of the emphasis is on rural areas and poorer urban areas of Phnom Penh where squatters face the prospect of being evicted and resettled involuntarily in places at distance from Phnom Penh where water and sanitation services if supplied are generally inadequate.	Major focus is on facilitating improved access to water supply and sanitation services for poorer and vulnerable households in urban and peri-urban contexts, especially households that are threatened with or have been involuntarily resettled. Have the resources, network and experience to participate in IEC campaigns and raising public and community awareness and support for development projects.	MIH showed limited past involvement or partnership with NGOs/civil society and internally it has limited awareness on the role and value adding that NGOs could contribute to urban water sector development. Civil society groups are more interested in the provision of small-scale water supply infrastructure such as neighborhood water collection points and smaller-scale storage tanks that are more suited to rural contexts than urban contexts. Moreover, because the incidence of poverty and indices of vulnerability are greater in rural areas civil society groups are better able to secure funding for such activities.	Resources are more concentrated in the field of advocacy than actual water supply or sanitation infrastructure investment and are unlikely to change. Is recognition by most civil society groups that they lack the financial resources to make such investments on anything but a very small-scale and this is largely in rural areas or an ad-hoc and temporary basis in urban areas.	NGOs are civil society have their own mandates but have received little support or recognition from MIH

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Table E.2: Stakeholders Communication Strategy (SCS)**Cambodia Urban Water Supply Project**

Objectives	Key Risks and Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources
<p>Ensure a regular flow of reliable information to enhance stakeholders support and feedback on implementation</p> <p>Ensure a two way communication flows, information sharing and feedback mechanism 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>Language/cultural barriers</p> <p>Literacy level</p> <p>Level of coverage and outreach</p> <p>Managing expectations</p> <p>Lack of familiarity with water supply systems</p>	<p>Target beneficiaries with new connections, underserved water users (affected peoples)</p> <p>Business owners/private sector and private water utilities</p> <p>Poor households</p> <p>Women</p> <p>MIH/DPWS/PMU, PIC, PWWs/PIUs</p> <p>Local Sangkat and Municipal Authorities,</p> <p>ADB/Donor agencies,</p> <p>NGOs/civil society</p> <p>Project Towns Radio and Television</p> <p>Provincial Governors Office</p>	<p>Project scope and design distinguishing subprojects that involve only water supply systems improvement and subprojects that include new distribution pipes and new connections, key project benefits, implementation arrangements and schedule of civil works.</p> <p>Main project impacts (positive, negative, social, gender, health and environmental).</p> <p>Key risks and planned mitigation measures (local hiring for construction employment and health risks).</p> <p>ADB processes, principles and mechanisms for social and gender</p>	<p>Workshops, seminars and public meetings with stakeholders.</p> <p>IEC campaigns (English and Cambodian) through information leaflets and publications, local media and public notices in partnership with civil society/NGOs and business sector.</p> <p>FGD and local community consultations</p> <p>Socio-economic survey</p> <p>Information sharing and dissemination at cultural and religious events</p> <p>PWWs/PMU will need to embrace outreach approaches to target local stakeholders</p> <p>Local Sangkat Authorities ensure all</p>	<p>From project outset through to project implementation.</p> <p>Regularly scheduled events in local media</p> <p>In schools and temples at beginning</p>	<p>DPWS/PMU/ PIC and PWWs/PIUs in the nine subproject towns</p> <p>Local Municipal Authorities</p> <p>Civil contractors</p> <p>Government Departments</p> <p>PPTA consultants</p>	<p>Cost of meetings and travel from funds of DPWS/PMU, PIC, PWWs/PIUs</p> <p>Cost of IEC materials funded from project budget</p>

Objectives	Key Risks and Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources
			<p>inclusive projects.</p> <p>Incorporate stakeholders views into project including acceptance of poverty criteria and ranking of poor and vulnerable stakeholders</p> <p>Explain how views of local stakeholders will be considered and integrated with overall project concerns</p> <p>Outreach to inform and promote women's employment in the project civil works construction and post construction O&M and inform of training opportunities for up skilling of women construction workers</p> <p>Identification of additional key issues that might have been overlooked during PPTA.</p>	<p>stakeholders are actively consulted and informed</p> <p>Multi stakeholder advisory groups established consisting of project affected persons, local Sangkat and municipal authorities, WSS and PIU</p>	<p>and end of each semester and in temples during major religious festivals such as the begging and end of Buddhist Lent and Pchumben</p>		

Objectives	Key Risks and Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources
Communicate tariff and connection charge fees	<p>Trust of information</p> <p>Literacy level</p> <p>Language/cultural barriers</p> <p>Level of coverage and outreach</p> <p>Managing expectations</p> <p>Lack of familiarity with water supply systems</p> <p>Information about proposed network expansion conveyed in reliable manner</p> <p>Poor and vulnerable HHs clearly identified and appropriate subsidized connections made available</p> <p>Language used readily understood at local level and devoid of excessively technical terms</p> <p>Local people informed of project related income generation opportunities</p>	<p>Project Affected Persons and target beneficiaries including HHs and businesses/organizations with new connections, underserves water users and poor people/women</p> <p>Local Sangkat Authority</p> <p>Water Supply Authority in Project Towns</p> <p>Project Towns Radio and Television</p> <p>Project Towns Municipal Government</p> <p>Provincial Governors Office</p> <p>MIH Phnom Penh</p> <p>Asian Development Bank</p>	<p>How to apply for subsidized HH water supply connections for poor and vulnerable HHs including FHHs</p> <p>IEC training on water usage and tariff based on affordability of average HHs living in poverty and promoting willingness to pay and enabling increase in tariff appetite/acceptability.</p> <p>Inform that water will not be supplied free of charge and bills must be paid on a monthly basis and on time and lifeline tariff rates (vary between PWWs subject to local household income levels) are available for households within the average poor household consumption rate of 0-10 cubic meters per month</p> <p>Existing providers of water at a localized level will need to</p>	<p>Project design workshops, seminars and public meetings in local Sangkats. Feedback communicated to PMU/PIC and PWWs/PIUs</p> <p>HH dissemination facilitated by PWWs/PIUs and local Sangkat Authority</p> <p>Media outreach via local television and radio in local language</p> <p>IEC campaigns (English and Cambodian) through information leaflets and publications, local media and public notices in partnership with civil society/NGOs and business sector</p> <p>Schools and temples announcing criteria for subsidized household connections</p> <p>Information sharing and dissemination at cultural and religious events</p>	<p>From outset of Project</p> <p>Regularly scheduled events in local media</p> <p>In schools and temples at beginning and end of each semester and in temples during major religious festivals such as the begging and end of Buddhist Lent and Pchumben</p>	<p>DPWS/PMU and PIC</p> <p>PWWs/PIUs in each subproject towns</p> <p>Where necessary assistance from each of the PWWs/PIUs</p> <p>Local Municipal Government</p>	<p>Activities including meetings, workshops, seminars, travel, wages, IEC materials to be funded from project budget and budget/resources of IAs (DPWS/PMU and PWWs/PIUs) under PIC coordination.)</p>

Objectives	Key Risks and Challenges	Main Stakeholders	Messages	Means of Communication	Timeline	Responsibility	Resources
			adjust tariffs should they choose to continue supply water	Print materials including posters prepared for the project by MIH/DPWS and PMU			

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X. ANTICORRUPTION POLICY

120. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.²⁶ 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.²⁷

121. To support these efforts, relevant provisions on good governance frameworks are to be included in the loan agreement/regulations and grant agreement/regulations and the bidding documents for the Project.

122. In all instances, the Loan Agreement shall be the overriding legal document. ADB Procurement Guidelines (2013, as amended from time to time) and ADB Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (2013, as amended from time to time), shall be applied pursuant to the Loan Agreement as they may be modified by the Loan Agreement. The Government of Cambodia's policies and procedures shall be applicable to the extent there is no discrepancy with the Loan Agreement or ADB's Procurement Guidelines and Consulting Guidelines. In the event there is a discrepancy, then the Loan Agreement, the Procurement Guidelines and the Consulting Guidelines shall apply.

XI. ACCOUNTABILITY MECHANISM

123. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.

XII. RECORD OF PAM CHANGES

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

- Discussion and endorsement of the PAM during loan negotiations held on 27-28 October 2014.

²⁶ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

²⁷ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>.