



## Regional: Promoting Innovations in Wastewater Management in Asia and the Pacific

Project Name	Promoting Innovations in Wastewater Management in Asia and the Pacific				
Project Number	45119-001				
Country	Regional				
Project Status	Closed				
Project Type / Modality of Assistance	Technical Assistance				
Source of Funding / Amount	<table border="1"> <tr> <td colspan="2"><b>TA 8060-REG: Promoting Innovations in Wastewater Management in Asia and the Pacific</b></td> </tr> <tr> <td>Japan Fund for Poverty Reduction</td> <td>US\$ 2.00 million</td> </tr> </table>	<b>TA 8060-REG: Promoting Innovations in Wastewater Management in Asia and the Pacific</b>		Japan Fund for Poverty Reduction	US\$ 2.00 million
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Japan Fund for Poverty Reduction	US\$ 2.00 million				
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth				
Drivers of Change	Governance and capacity development Partnerships Private sector development				
Sector / Subsector	<b>Water and other urban infrastructure and services</b> - Urban water supply				
Gender Equity and Mainstreaming					
Description	In accordance with the ADB's Water Policy, the TA will support development of wastewater investment projects through knowledge management, examination of technology options, incentives and financing mechanisms, and conduct of knowledge exchange and capacity development activities. The TA proposes to concretize the advocacy into potential business opportunities by undertaking limited pre-feasibility studies to establish financial sustainability and then conducting round tables amongst stakeholders (primarily public sector agencies and private investors) to confirm their interest to invest after full fledged feasibility studies (beyond scope of this proposal). Proven solutions that can be potentially applied to a local situation will be discussed at the roundtable as a sustainable business opportunity for wastewater management. The mutually accepted opportunities will then be further developed as a wastewater investment project with private participation by ADB with other partners.				
Project Rationale and Linkage to Country/Regional Strategy	The Knowledge drive would develop a compendium of environmental sanitation solutions as a structured database, comprising case studies outlining the sanitation need, technical solution, project/institutional setting, financial viability aspects etc., which would be disseminated through web-based information network. The Technology drive would dive deeper into specific technology datasheets and its applications (proven, under development, under research for future potential) for different treated wastewater output quality required for various end-uses. The Incentives and Financing drive would look at developing business opportunity briefs based on pre-feasibility studies to demonstrate financing viability of sanitation solutions. The Awareness and Advocacy drive would be the key networking and knowledge exchange platform through roundtables bringing all stakeholders (public sector, private investors, technology providers, research organization, users etc.) to discuss and move forward on identified business opportunities. There would be other supporting activities in each of drives as envisaged in the working draft RETA Concept Paper. As a part of the broader advocacy, DMCs will be engaged in regional and in-country environmental sanitation dialogues and encouraged to make wastewater management a priority agenda and include it in their country partnership strategies, and overall national economic development plans.				
Impact	Enhanced sustainable investments in environmental sanitation projects.				

### Project Outcome

Description of Outcome	Increased awareness and enhanced institutional and professional capacity of DMCs in developing viable and sustainable septage, wastewater, and sludge management and reuse plans and/or projects.
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Progress Toward Outcome	<p>Awareness on wastewater and septage management issues and options to address these issues have increased. Specifically, local stakeholders have become more aware that there are many technical and financial options to plan, implement and sustain wastewater/septage management projects. While there is much work to be done to address the constraints, local government officials and service providers have become more conscious of the work that needs to be done to enable more aggressive implementation of projects.</p> <p>Necessary institutional reforms have been identified and difficulties in implementing such is acknowledged. Whole life-cycle planning is introduced, which gives appropriate importance to capex, opex including sludge management. This is in contrast with the usual planning which puts much bias on capex as a decision tool. Reuse and other resource recovery options such as waste-to-energy management is discussed and considered.</p>
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## Implementation Progress

Description of Project Outputs	<p>Component 1: Knowledge drive will involve building up knowledge on environmental sanitation solutions. The outputs include: (i) structured database of models and case studies outlining the sanitation need, technical solution options, institutional setting, financial viability aspects and application areas; and a (ii) virtual knowledge center: web-based information system and network for easy access to the case studies, working models, technology and financing options, and investment and business opportunities.</p> <p>Component 2: Technology drive will focus on cost effectiveness and appropriateness. There is a mosaic of treatment options conventional/proven, innovative, emerging, under development, and potential for R&amp;D. Installations in new cities and retrofits of older systems can be designed around the cascading, modular system. Sewage can be harvested for energy and/or nutrients, and/or cleaned enough for agricultural, industrial or environmental use, thereby augmenting water supplies. The outputs under the technology drive will include: (i) inventory of technologies classified by treatment and reuse/recycle technology type; (ii) information briefs on technology applications for different levels of treatment and standards required for various end-uses.</p> <p>Component 3: Incentives and Financing drive will incorporate affordable financing mechanism to fast-track wastewater investment projects, and encourage extraction of resources from wastewater (when wastewater is seen as a resource with potential revenues, the incentive package changes). This will involve: (i) development and dissemination of business and investment opportunity briefs based on pre-feasibility studies demonstrating financial viability of sanitation solution options; and (ii) delivery and financing mechanism options (including public-private partnerships), and design of project financing with incentives (wastewater revolving fund, wastewater bonds, output-based aid, Clean Development Mechanism/carbon credits; guarantee mechanism; affordable lending terms; etc.).</p> <p>Component 4: Awareness and Advocacy drive will comprise aggressive knowledge and advocacy product development and dissemination on the technology and financing options, health and environmental impacts, energy costs, and benefits of various models of wastewater management among policy-makers, planners, investors, and beneficiary communities; and influencing the acceptance of a mosaic of options or a range of possibilities, among decision-makers. This will involve: (i) networking and knowledge exchange platform through: roundtables with investors, operating companies, service providers, research institutes, technology developers, and end-users; sub-regional and in-country conferences; and support to private sector capacity development to trigger the use of technology and financing options, and move forward on the identified business/investment opportunities; (ii) advocacy product development and dissemination, e.g., policy briefs, multimedia, articles, brochures, etc.; and (iii) knowledge product development and dissemination, e.g., toolkits on range of technology options and financing arrangements; and training and instructive materials.</p>
Status of Implementation Progress (Outputs, Activities, and Issues)	<p>Component 1: Completed a virtual knowledge center: <a href="http://www.wastewaterinfo.asia">www.wastewaterinfo.asia</a> Completed 3 case studies and 86 project briefs that are showcased in the website.</p> <p>Component 2: Completed technology compendium/database Completed 86 technology data sheets (TDS), preparing 25 more</p> <p>Component 3: Developing financial policy briefs Completed 1 out of 3 case studies and 18 out of 86 project briefs focused on delivery and financing options Developing pre-FS for Colombo, SRI Ongoing identification of business opportunities in target countries</p> <p>Component 4: Completed 1 multimedia video (total = 4) Conducted 5 in-country workshops and 1 sub-regional conference Completed 3 case studies (total = 11) Completed 86 technology data sheets (total = 111)</p>
Geographical Location	

## Summary of Environmental and Social Aspects

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

## Stakeholder Communication, Participation, and Consultation

During Project Design

During Project Implementation Regional consultation workshops will be held which will be participated in by various regional and national stakeholders and agencies.

## Business Opportunities

Consulting Services Approximately 23 person-months of international consultancy and 142 person-months of national consultancy will be needed to implement the activities of the TA. The major areas of expertise required are expected to include the technical, economic, financial, policy, institutional, social, environmental, information technology and multi-media disciplines related to wastewater investments, technology and financing options, knowledge management, advocacy and capacity development.

## Responsible Staff

Responsible ADB Officer	de Lijster, Michiel J.
Responsible ADB Department	SDSC
Responsible ADB Division	SDSC-WAT
Executing Agencies	ADB POHQ Regional

## Timetable

Concept Clearance	27 Jan 2011
Fact Finding	-
MRM	-
Approval	15 Mar 2012
Last Review Mission	-
Last PDS Update	20 Oct 2014

## TA 8060-REG

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
15 Mar 2012	-	15 Mar 2012	28 Feb 2016	31 Dec 2016	-

Financing Plan/TA Utilization						Cumulative Disbursements		
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	2,000,000.00	0.00	0.00	0.00	0.00	2,000,000.00	15 Mar 2012	1,488,030.45

Project Page	<a href="https://www.adb.org/projects/45119-001/main">https://www.adb.org/projects/45119-001/main</a>
Request for Information	<a href="http://www.adb.org/forms/request-information-form?subject=45119-001">http://www.adb.org/forms/request-information-form?subject=45119-001</a>
Date Generated	28 May 2017

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