



Country Presentation: CAMBODIA

*Efforts towards achievement of SDG6.3_By 2030, "Halving the Proportion of Untreated Wastewater" Should Be Accomplished.



WWTP @ Siem Reap Province



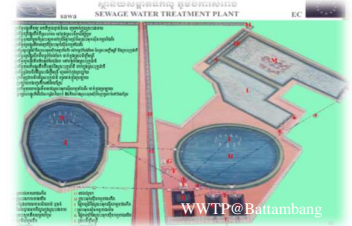
WWTP @ Sihanouville Province

The Inaugural Symposium of Asia Wastewater Management Partnership (AWaP)

3

Participants:

- 1. Mr. CHAO Sopheap Phibal Director, Sewerage Management and Construction Dept_MPWT
- 2. Mr. MEN Vivoitvithiea Deputy Director, of Department of Investment,
General Department of Budget
Ministry of Economy and Finance, MEF



Kitakyushu International Conference Center



July 25 ,2018 @ Kitakyushu, Japan

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I. Country & Ministry Information

II. Current Situation

III. Issues and Challenges

IV. Concepts of Wastewater

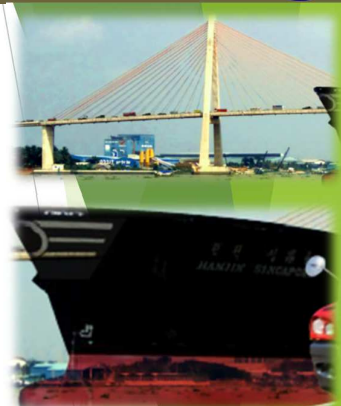
Management in Cambodia (Draft)



H.E Senior Minister SUN Chanthol

Contact Address:

Ministry of Public Works and Transport
Norodom Blvd, Corner of Street 106
Phnom Penh, Cambodia
Tel. (+855) 23 427 845/(+855) 012 877 866
E-mail: info@mpwt.gov.kh / phibal@gmail.com
Website & Facebook: WWW.mpwt.gov.kh/
<https://www.facebook.com/mpwt.gov.kh/>
<https://www.facebook.com/MPWT.SMCD/>



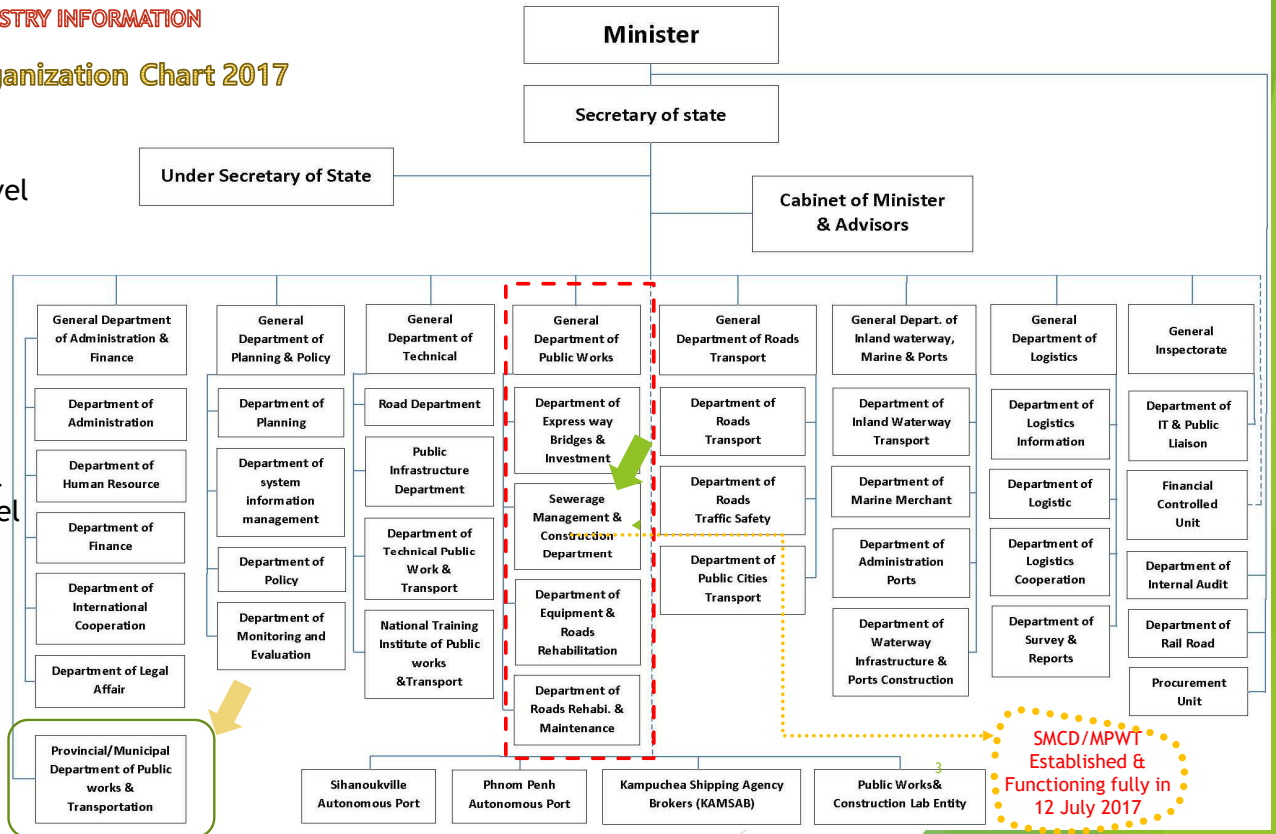
WWTP @ Siem Reap Province

I. COUNTRY & MINISTRY INFORMATION

MPWT Organization Chart 2017

Management Level

Technical Level
 National level
 Provincial level



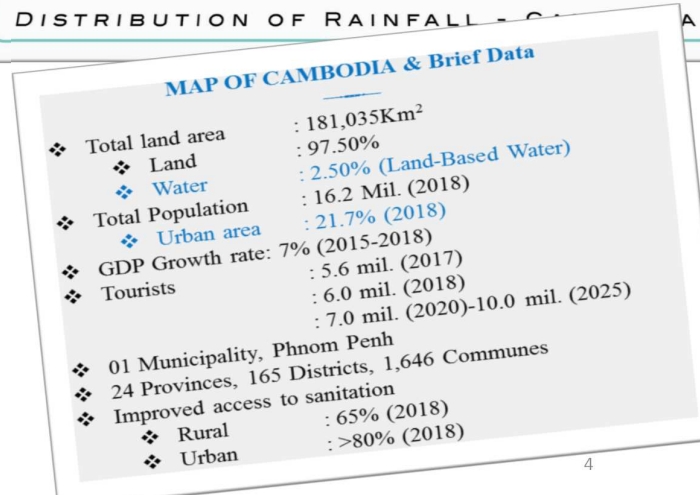
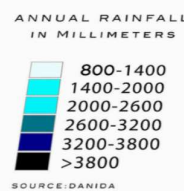
Country Presentation: CAMBODIA

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III. Current Situation on Wastewater and System

- Fast urbanization, Socio-economical development and industrialization is our Challenges in Urban Wastewater.
- World Bank Report, 2008
 - Human excreta : 234 tons/day
 - Human urine : 2,335m³/day
 - Grey water : 8,154m³/day
 - BOD : 497 tons/day
- No Law relating to Sewerage and Drainage Management Yet, only Sub-decree No.235 dated on 25 Dec 2017 on the Management of Drainage and Wastewater Treatment Management.
- Limited Drainage System and WWTP
 - Combined sewerage system is a major type of WW collection
 - Septic tank is a main existing sanitation system in urban areas
 - Insufficient of WWTP Capacity (Supply << Demand)
- Only three WWTP through out the country/24 Provinces plus Phnom Penh Municipality
 - In Sihanoukville, Siem Reap & Battambang Provinces
 - Phnom Penh Municipality- Under detailed study & construction by JICA
- Master Plan on Drainage and Sewerage Improvement in Phnom Penh Metropolitan Area by JICA in December 2016
- Master Plan on Sewerage System Development in Takhmau Town, Kandal Province, EDCF, Korea Oct 2016
- Master Plan under study by Chinese Firm at 03 Provincial Towns expected to complete by 2020
 - Sihanoukville, Siem Reap & Takhmau Towns
- MOC, MOUs (MLIT-Japan, CDIA, GGGI) & Sub-TWG/UWS

Globally, 80% of Wastewater generated flow back into ecosystem without treated or reuse.





III. Current Situation, WWTP (Cont.)

Existing Wastewater Treatment Plants (Lagoon System)

Description	Unit	Sihanoukville	Battambang	Siem Reap
Population (2008)	people	0.221 million	1.025 million	0.896 million
Type of WWTP	-	Oxidation Pond	Oxidation Pond	Oxidation Pond
Size of WWTP	ha	16.2	4.7	8
Capacity of WWTP	m ³ /day	5,900	450 (Planned 1,000)	8,000
Coverage service area	ha	221.5	16,836 homes and business owners	1,083 (Excluding 264ha of ADB Project)
Construction cost	USD	11.19 million	0.46 million	29.96 million
Construction Completion	-	2005	1994	2013
Sources of Fund	-	ADB Loan	EU	ADB and EDCF loan
Current status	-	In Operating	Partially Operating	Partially Operating



III. Issues and Challenges

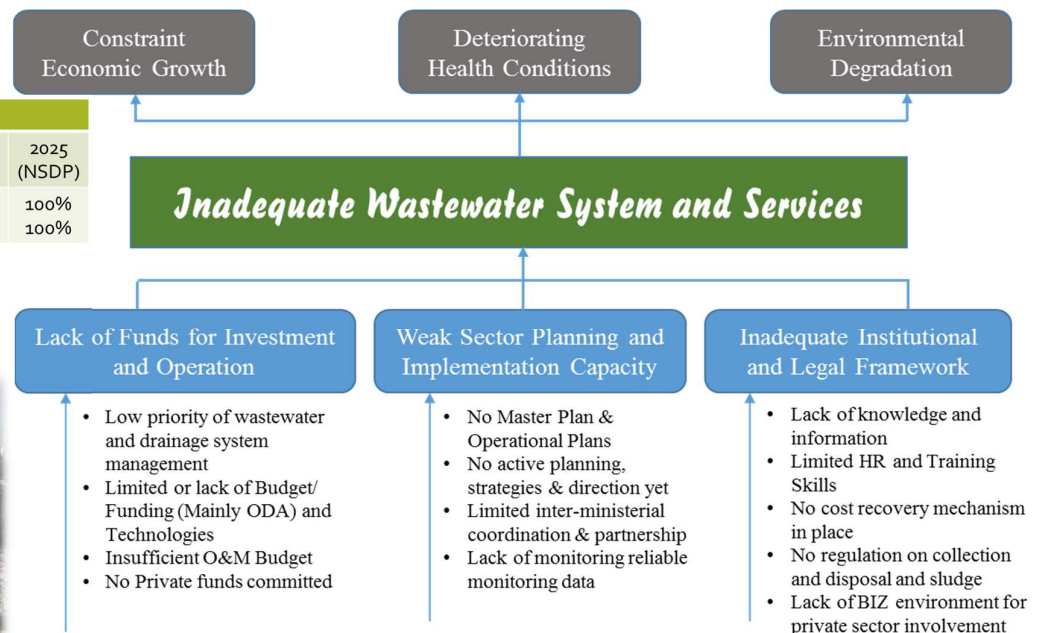
CAMBODIA: Access to Sanitation Current Status vs Targets

Sanitation Accessibility	Current Status		Targets		
	2012 (NSDP)	2012 (JMP)	2015 (CMDG)	2018 (NSDP)	2025 (NSDP)
1. RURAL	25%	25%	30%	65%	100%
2. URBAN	>80%	82%	74%	>80%	100%

Note:
 ✓ NSDP: National Strategic Development Plan, 2014-2018
 ✓ JMP: Joint Monitoring Program (UNICEF-WHO)



PROBLEM TREE ON WASTEWATER SECTOR





<<Early July 2018>>




 Samdech Akka Moha Sena Padei Techo HUN SEN
 Prime Minister of the Kingdom of Cambodia

Phnom Penh, 10 July 2018

His Excellency Shinzo Abe
 Prime Minister of Japan
 Tokyo

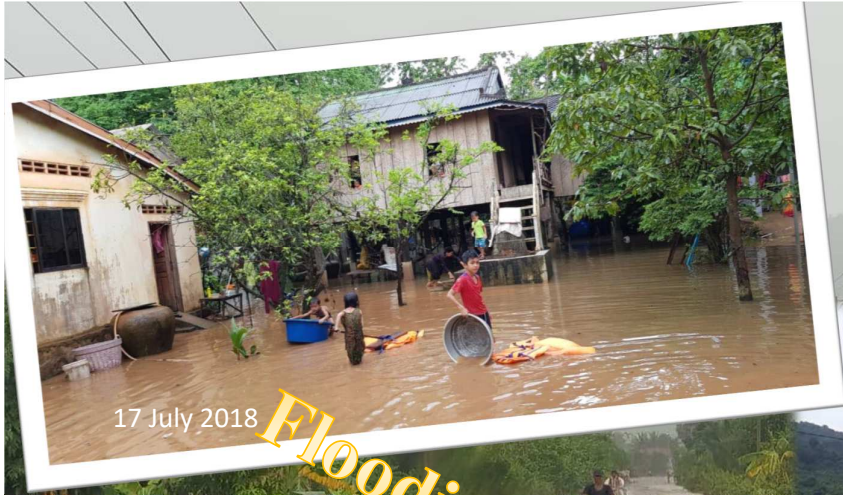
Your Excellency

I am extremely saddened to learn about the loss of so many lives in the floods and landslide due to heavy rains, which have caused massive damages in the Southern and Western parts of Japan, since last week.

On behalf of the Royal Government and people of Cambodia, I would like to convey my heartfelt condolences to Your Excellency and the people of Japan, particularly the bereaved families at this moment of profound grief and immense loss.

Please accept, Your Excellency, the assurances of my highest consideration and my deep sentiment of solidarity.


 HUN SEN



17 July 2018



16-17 July 2018, NR4

Flooding and Wastewater



17 July 2018



17 July 2018, Rice Paddy

stewater status and manage X Indicator 6.3.1 - Wastewater tr X (17) សាធារណការ រាជធានីភ្នំពេញ X +

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សាធារណការ រាជធានីភ្នំពេញ Timeline Recent

Like Reply 1w

Write a comment...

សាធារណការ រាជធានីភ្នំពេញ
July 11 at 12:07 PM

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Friends 4,992 (151 Mutual)

See what you have in common with សាធារណការ's friends.

English (US) ភាសាខ្មែរ Français (France) Español · Português (Brasil)

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stewater status and manage X Indicator 6.3.1 - Wastewater tr X (17) សាធារណការ រាជធានីភ្នំពេញ X +

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សាធារណការ រាជធានីភ្នំពេញ

សាធារណការ រាជធានីភ្នំពេញ Timeline Recent


From Phnom Penh

Followed by 6,876 people

Photos

សាធារណការ រាជធានីភ្នំពេញ
July 12 at 1:41 PM

មុនពេល និងក្រោយពេលកាយសំរាមប្រឡាយចំងត្របែក



Source: Phnom Penh DPWT, 12 July 2018

Friends 4,992 (151 Mutual)

See what you have in common with សាធារណការ's friends.

English (US) ភាសាខ្មែរ Français (France) Español · Português (Brasil)

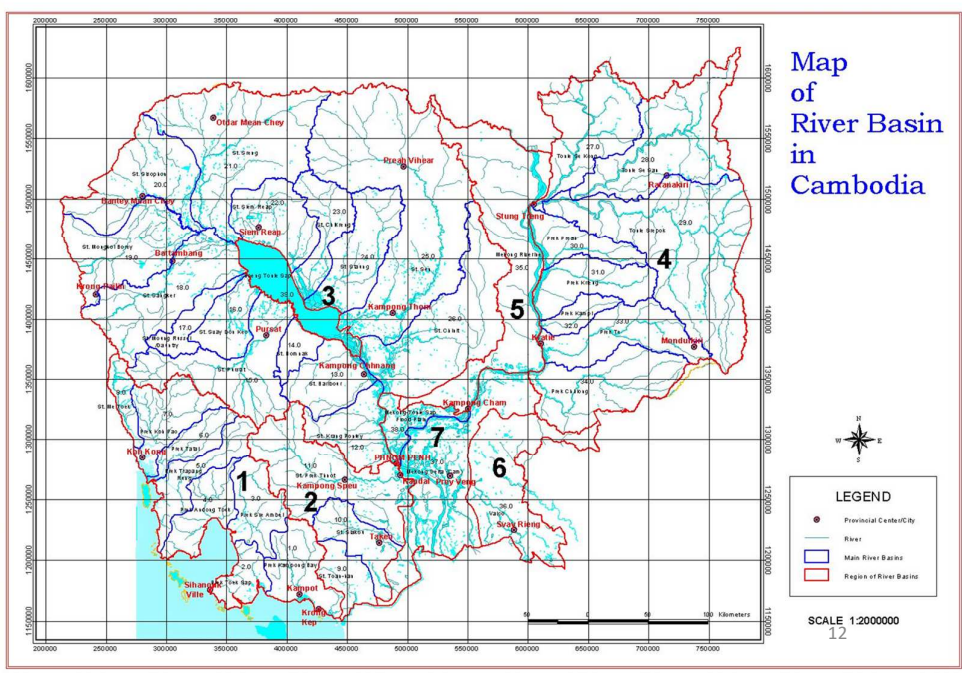
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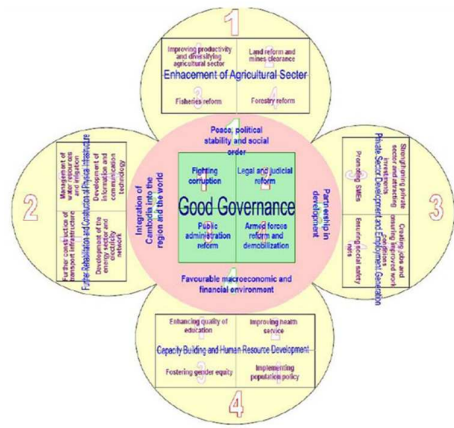




IV. Concepts of Wastewater Management in Cambodia

- 1) Geographical Relief
- 2) Treats to Wetland in Cambodia
- 3) The Tonle Sap Biosphere Reserve
- 4) The Coastal Zone
- 5) Development Plan
- 6) Target Plan





KINGDOM OF CAMBODIA FRENCH DEVELOPMENT AGENCY

**DELIVERABLE N°1:
INTERMEDIARY REPORT
(DRAFT VERSION)**

Consulting services for Advocacy for sanitation in Phnom Penh

May 2017
R1999

SOFRECO · TDM · SIK Research and Development

KINGDOM OF CAMBODIA FRENCH DEVELOPMENT AGENCY

**DELIVERABLE N°2:
FINAL REPORT**

Consulting services for Advocacy for sanitation in Phnom Penh

June 2017
R1999

SOFRECO · TDM · SIK Research and Development

KINGDOM OF CAMBODIA FRENCH DEVELOPMENT AGENCY

**DELIVERABLE N°3:
DEBRIEFING REPORT**

Consulting services for Advocacy for sanitation in Phnom Penh

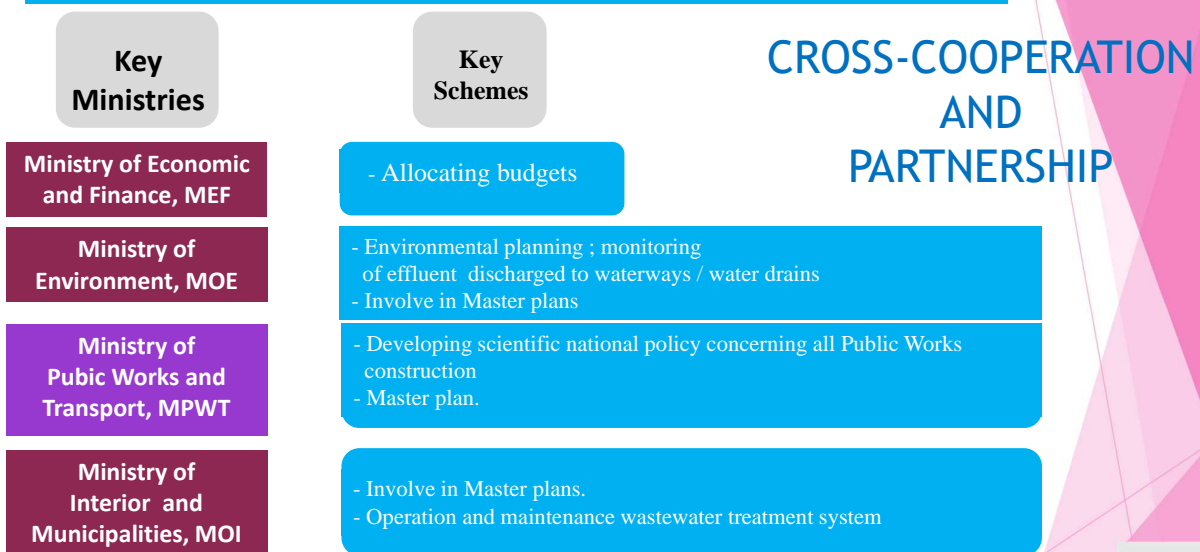
June 2017
R1999

SOFRECO · TDM · SIK Research and Development



- *TOOLS to Achieve the Wastewater Management***
- 1) National Strategic Development Plan, NSDP 2014-2018
 - 2) City Development Strategy, CDS
 - 3) Rectangular Strategy Phase-III, the 5th Mandate of Govt, 2013-2018
 - 4) Encourage PPP Scheme for Public Investment 2016-2020
 - 5) Sub-decree on Sewerage System and Wastewater Treatment Plant Management
 - 6) Work Programs/Plans with DPs
 - 7) Master Plan, and Guidelines

ROLE AND FINANCIAL RESPONSIBILITIES OF PLANNING DEVELOPMENT AND MANAGEMENT OF MUNICIPAL WASTEWATER TREATMENT





The Proposed to Establish the “Sub-TWG on Urban Wastewater and Sanitation” has been strongly supported and approved by the members of IRTIWG during the meeting on 27 June 2018

IRITWGs Meeting
27 June 2018

Infrastructure and Regional Integration Technical Working Group, IRTIWG: Its Sub-TWGs

- 1) Land Transport and Railway
- 2) Road Related Infrastructure
- 3) Marine / Waterway Transport Infrastructure (Ports)
- 4) Air Transport

- 5) Urban Water Supply
- 6) Electricity and Energy
- 7) Telecom Infrastructure
- 8) **Urban Wastewater and Sanitation (UWS)**

➤ Approved During the IRTIWG Meeting on 27 June 2018



MEMORANDUM OF COOPERATION BETWEEN MPWT AND MLIT SIGNED ON 15 FEB 2017 IN TOKYO, Japan



MEMORANDUM OF COOPERATION

between
THE MINISTRY OF PUBLIC WORKS AND TRANSPORT OF THE KINGDOM OF CAMBODIA
and
THE MINISTRY OF LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM OF JAPAN

1- Objective

The objective of this Memorandum of Cooperation (hereinafter referred to as “this MoC”) is to enhance cooperation between both sides in order to improve the quality of life and accelerate the sustainable economic growth for both countries.

Signed in duplicate as a non-legally binding document at Tokyo on this 15 day of February in the year 2017 in two original texts in the English language.

2- Areas of Cooperation

The areas of the cooperation between both sides will include the following:

- (1) Policy, planning, construction, operation and maintenance regarding sewerage/drainage works.
- (2) Legal and institutional system for sewerage/drainage works.
- (3) Technologies and technical standards for sewerage/drainage works.
- (4) Human resources development for implementation of sewerage/drainage works.
- (5) Promoting public awareness of sewerage/drainage works.
- (6) Promoting and supporting technical cooperation activities among cities/companies of Cambodia and Japan.

ON BEHALF OF
THE MINISTRY OF PUBLIC WORKS AND TRANSPORT OF THE KINGDOM OF CAMBODIA

Mr. Tauch Chankosal
Secretary of State, Ministry of Public Works and Transport, Kingdom of Cambodia

ON BEHALF OF
THE MINISTRY OF LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM OF JAPAN

Mr. Shinsuke SUEMATSU
State Minister of Land, Infrastructure, Transport and Tourism, Japan

- ❑ Policy, planning, construction, operation and maintenance regarding sewerage/drainage works
- ❑ Legal and institutional system for sewerage/drainage works

3- Methods of Cooperation

The methods of cooperation will include the following:





Kingdom of Cambodia
Nation Religion King

Royal Government of Cambodia
No. 235 ANKR.BK

SUB-DECREE

On

The Management of Drainage and Wastewater Treatment System

The Royal Government

Having seen the Constitution of the Kingdom of Cambodia
Having seen the Royal Decree No. NS/RKT/0913/903 dated 24 September 2013 on the appointment of the Royal Government of Cambodia
Having seen the Royal Decree No. NS/RKT/1213/1393 dated 21 December 2013 on the change and complement the composition of the Royal Government of Cambodia
Having seen the Royal Decree No. NS/RKT/0416/368 dated 04 April 2016 on the change and complement the composition of the Royal Government of Cambodia
Having seen the Preah Reach Kram No. 02/NS/94 dated 20 July 1994, promulgation to use the Law on the Establishment and Implementation of the Council of Ministers
Having seen the Preah Reach Kram No. 02/NS/94 dated 20 July 1994, promulgation to use the Law on the Establishment and Implementation of the Council of Ministers

- ✓ Participate to prepare master plan for the management of drainage and WWTS
 - ✓ Review and provide recommendation on the request for drainage connection, drainage, WWTS
 - ✓ ...
- (DPWT)

*Sub-decree No.235 ANKR.BK
Dated 25 Dec 2017

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សម្តេចនាយករដ្ឋមន្ត្រី ហ៊ុន សែន

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Chantol

ស៊ុន ចាន់ថុល

រដ្ឋមន្ត្រី
ហត្ថលេខា

Chapter 2
Competence Authority

Article 5:

Ministry of Public Works and Transport is responsible for manage and enhance the technical management of the drainage and wastewater treatment system operation and duties as following:

- Lead the policy-making, strategy, master plan, and drainage development plan and wastewater treatment system in Cambodia to submit to the Royal Government for consideration and approval;
- Prepare technical standard on construction, management, operation and maintenance of drainage and wastewater treatment system;

- ✓ Lead the policy-making, strategy, master plan and drainage development plan and wastewater treatment system in Cambodia to submit to the Royal Government for consideration and approval
 - ✓ Prepare technical standard on construction, management, O&M of drainage and WWTS
- (MPWT)

Article 12: -

Provincial Department of Public Works and Transport in cooperation with relevant specialized units shall fulfill its role as a staff of capital, provincial, municipal, district, khan on the management of drainage and wastewater treatment system and duties as the following:

- Participate to prepare master plan for the management of drainage and wastewater treatment system;
- Provide technical consultation on proposal of development investment regarding drainage and wastewater treatment system;
- Review and provide recommendations on the request for drainage connection, drainage and wastewater treatment system services;
- Encourage on concerned law and legal documents enforcement related to the management of drainage and wastewater treatment system and penalize on violations;
- Enhance public awareness regarding environmental sanitation by mainstreaming drainage and wastewater treatment services;
- Prepare mid-term, and annual report about the current status and procedure of drainage and wastewater treatment system management.

Session 1 Presentation: The First General Meeting of Asia Wastewater Management Partnership (AWaP)
Opinions on "AWaP's Work Plan"

THANK YOU SO MUCH FOR YOUR KIND ATTENTION!



- ❖ 28th July 2016, Nagoya, Japan: Conference on Watershed Management for Controlling Municipal Wastewater in Southeast Asia.
- ❖ 13th December 2017, Melia Yangon, Myanmar: Preparatory Workshop for Establishment of the AWaP
- ❖ 25 July 2018, Kitakyushu, Japan: 1st General Meeting of AWaP

Q & A