OVERVIEW OF THE WATER SERVICES INDUSTRY IN MALAYSIA

BY

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OUTLINE OF PRESENTATION

1. BACKGROUND
2. AREAS OF CONCERN
3. THE WAY FORWARD

BACKGROUND

- ROLE OF KETTHA FOR THE WATER SECTOR
- ECONOMIC TRANFORMATION PLAN
- MALAYSIA DEVELOPMENT PLAN
- MINISTRY‘S STRATEGIC PLAN 2010 – 2015 FOR THE WATER SECTOR

ROLE OF KETTHA (MINISTRY OF ENERGY, GREEN TECHNOLOGY AND WATER)

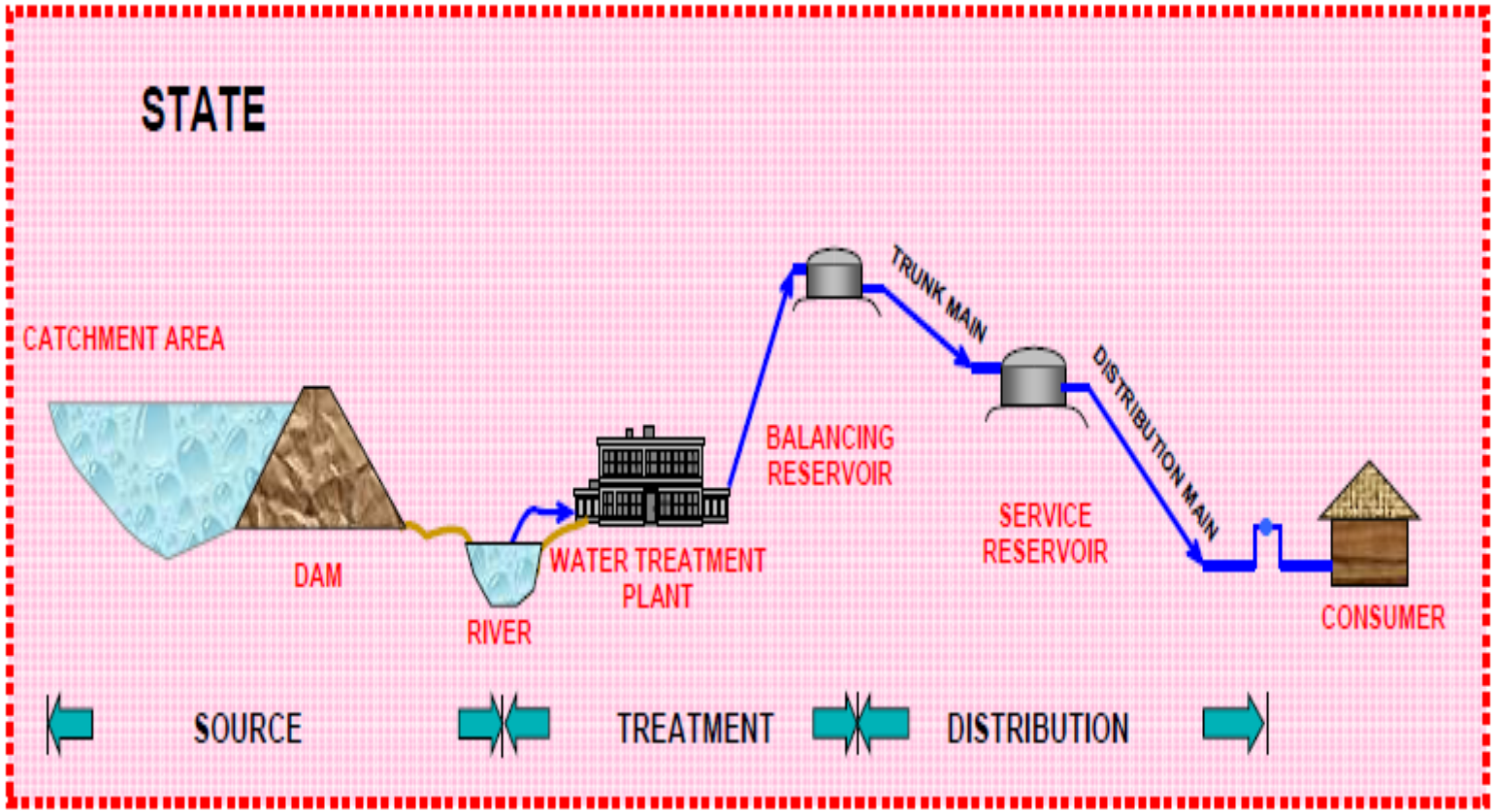
- Formulation and implementation of national water policy.
- Planning and developing strategic directions.
- Formulating licensing and supervising policy and framework.
- Planning, evaluating and monitoring development projects.
- Create a regulatory system that is dynamic and progressive.
- Ensure a suitable environment for the development of the water service industry

- **ECONOMIC TRANSFORMATION PROGRAMME**
- **KEY PERFORMANCE INDICATORS**
- **MALAYSIA DEVELOPMENT PLANS**
- **KETTHA'S STRATEGIC PLAN 2010-2015**

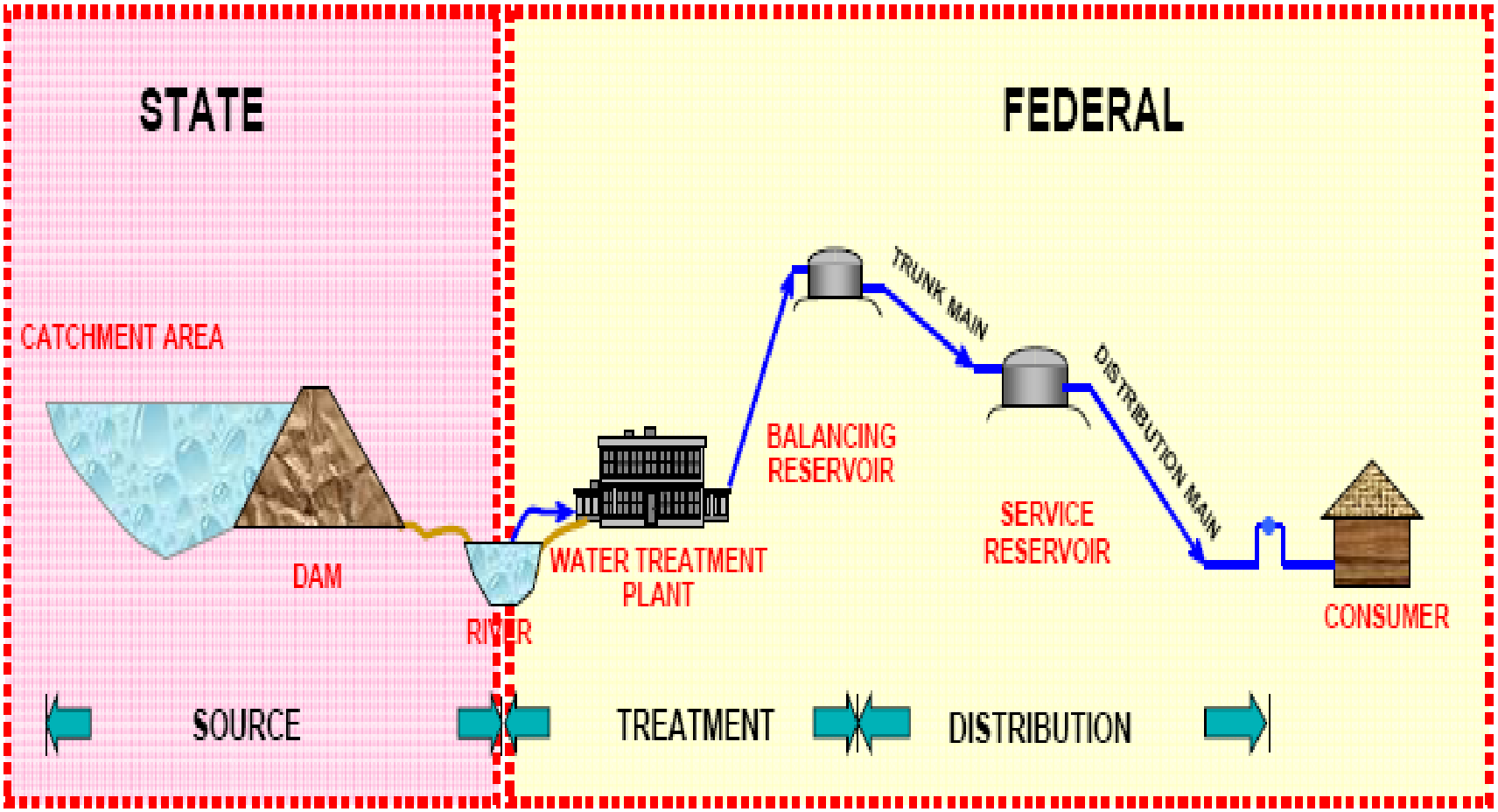
WATER SERVICES INDUSTRY ROADMAP

8th Plan Period (2001-2005) Stabilization	9th Plan Period (2006-2010) Consolidation	10th Plan Period (2011-2015) Towards Efficiency
■Privatisation and corporatization of state water authorities ■Planning for restructuring of water services industry -amendments to Federal Constitution	■Operationalisation of SPAN ■Enforcement of WSIA 2006 ■Transfer of water related assets to PAAB at negotiated value and development of new water infrastructure ■Service providers become asset light and focus on efficiency and effectiveness	■Tariff setting mechanism to allow full cost recovery to be fully phased in by 2013 ■Integration of water supply and sewerage services ■Initial efforts towards introduction of integrated water and sewerage tariffs

WATER MANAGEMENT IN MALAYSIA – PRE-AMENDMENTS TO THE FEDERAL CONSTITUTION

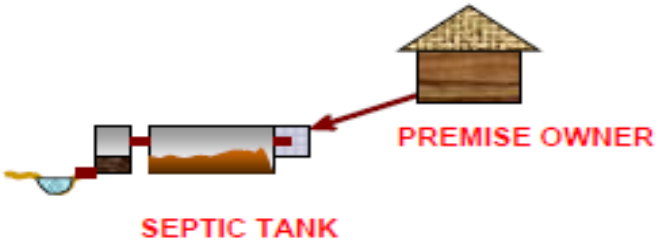


WATER MANAGEMENT IN MALAYSIA – POST-AMENDMENTS TO THE FEDERAL CONSTITUTION



MANAGEMENT OF SEWERAGE SERVICES IN MALAYSIA

A) Individual Septic Tank



B) Connected System

PRINCIPAL ROLE OF FEDERAL AND STATE GOVERNMENTS

Body	Area of responsibility	Description
Federal Government	Policy matters	Development of a holistic water policy for the country by setting policy directions.
State Government	Water resources matters	Manage existing water basins with the view of protecting the quality of raw water and identifying new water basins when required.
National Water Resources Council (NWRC)	Governance matters	Ensures coordination with the various State Governments in the management of the water resources.
Suruhanjaya Perkhidmatan Air Negara (SPAN)	Regulatory matters	Regulate the whole water industry based on the policy directions set out by the Federal Government. Promote an efficiency driven regime

INTRODUCING REGULATORY REGIME

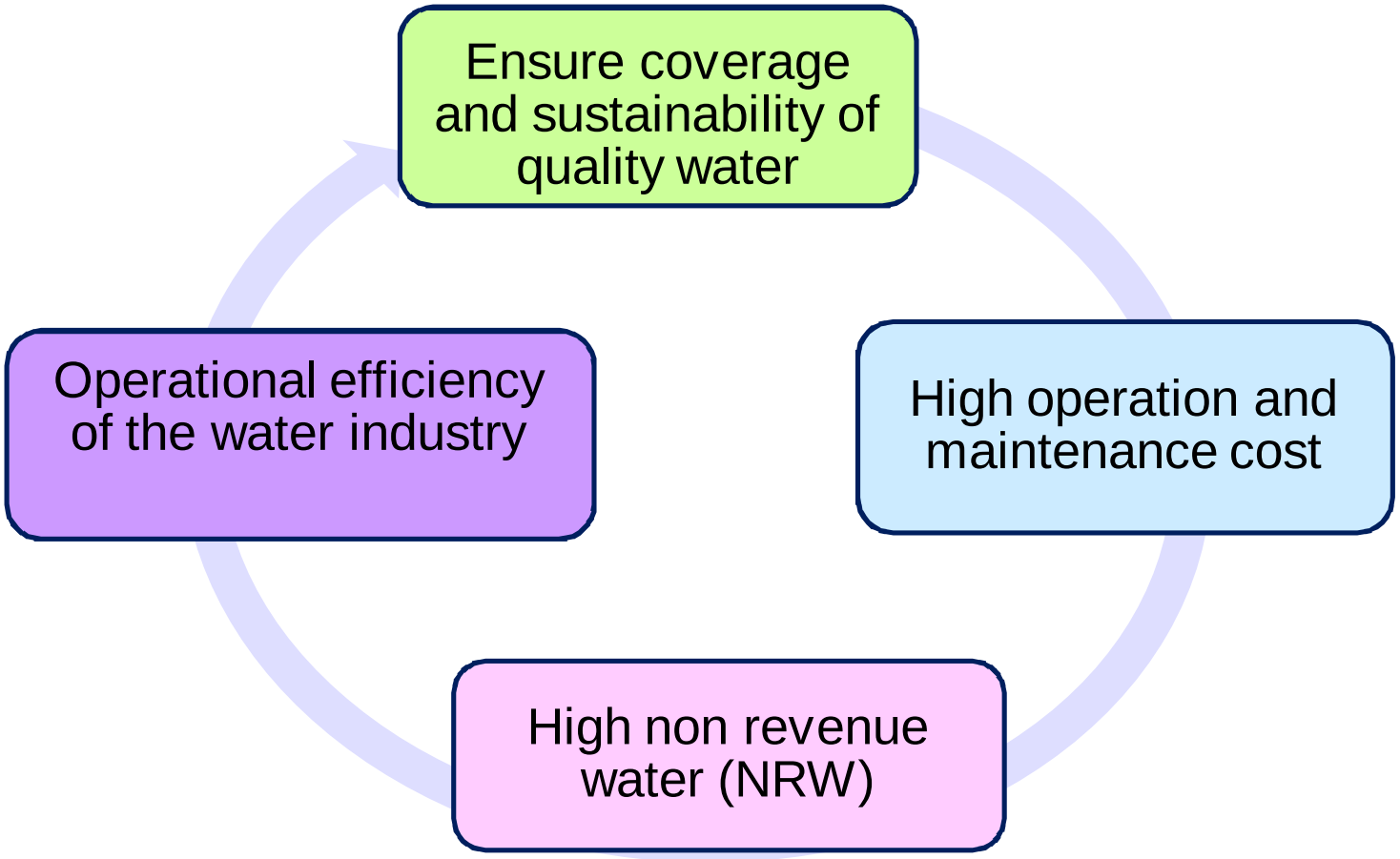
WATER SERVICES INDUSTRY ACT 2006 (WSIA)

NATIONAL WATER SERVICES COMMISSION

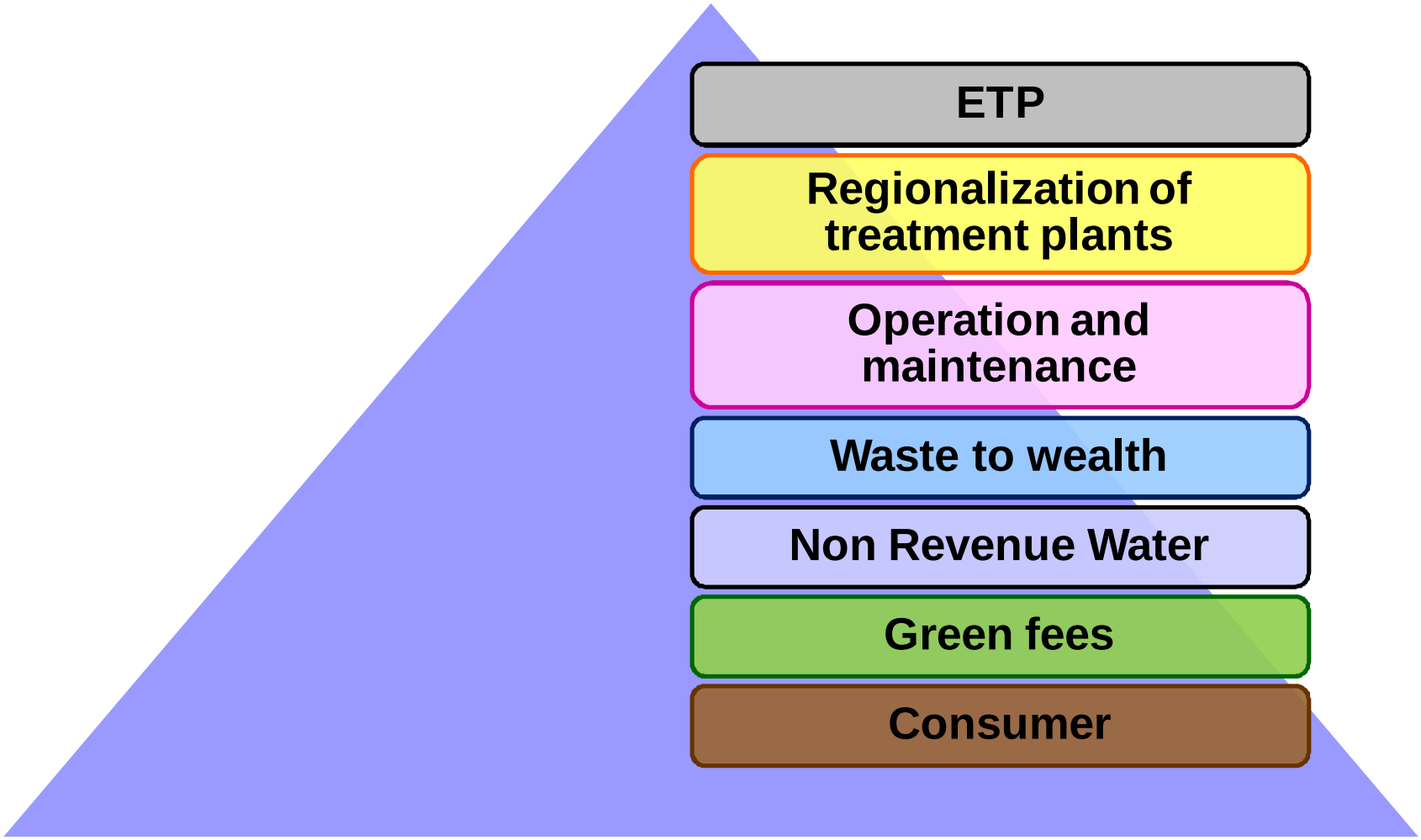
PAAB – *PENGURUSAN ASET AIR BERHAD - (WATER MANAGEMENT AGENCY)*

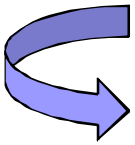
INDAH WATER KONSORTIUM BERHAD

AREAS OF CONCERN



THE WAY FORWARD





To create a **holistic** and **viable** water services industry with the proficiency to deliver an **efficient** and **excellent** water and sewerage service

Thank you

SEWERAGE MANAGEMENT IN MALAYSIA

Presentation to PPP Council for Overseas Water Infrastructure

KeTTHA
KEMENTERIAN TENAGA, TEKNOLOGI HIJAU DAN AIR

IndahWater

Evolution of Sewerage Systems in Malaysia

Prior to 1950-s

Technology

Pour Flush

Septic Tank

Imhoff Tank

OP/AL

Activated Sludge/ Biological Filters

Fully Mechanised Plants

1950-s | 1960-s | 1970-s | 1980-s | 1990-s | 2000 | Year

Early Days in Malaya

Primitive / Primary Treatment

(Address Public Health)

Partial / Full Secondary Treatment

(Address River Pollution)

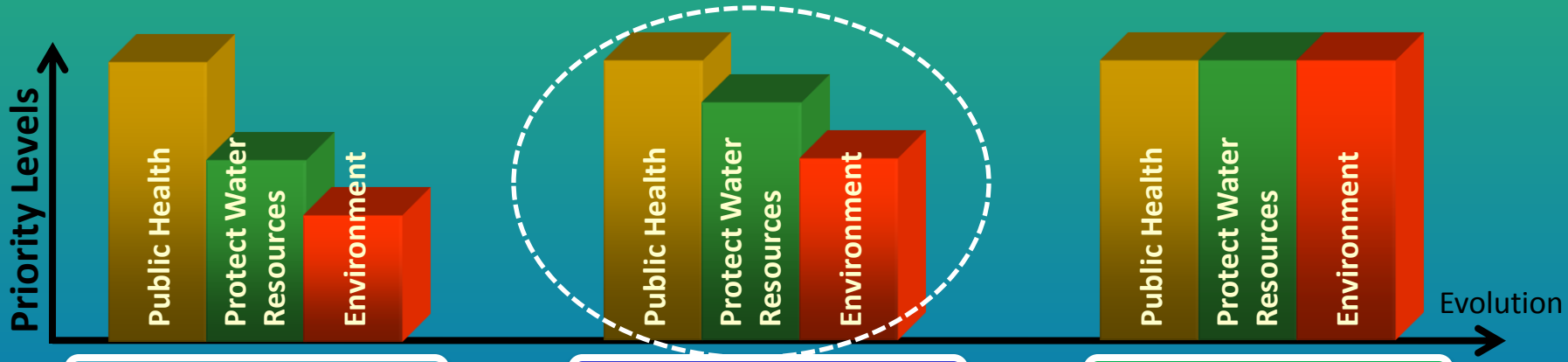
Future Tertiary Treatment

(Address Environment)

The sewerage technology in Malaysia has improved significantly within a span of over 5 decades

Progressive Development of Malaysia's Sewerage Services

Past	Present	Potential
		
Protect Public Health	Protect Water Resources	Preserve Environment



No Tariff	Current Tariff	Green Tariff
1. Poor hygiene 2. Water pollution 3. Water Borne Diseases: • Diarrhea • Worm Infections, • Cholera • Typhoid • Stunted Growth • Death	Domestic Charge of RM2 to month does not cover operating costs: 1. O&M 2. Collection 3. Conveyance RM8 per Equipment Replacements 4. Depreciation 5. Planning 6. Monitoring 7. Administration etc.	1. Conserving the environment 2. Reducing pollution 3. Increase level of health through sanitary standards 4. Mitigate climate change via conservation& limiting waste 5. Sustainable sewerage management

Sewerage Management in Malaysia

Before Merdeka	Mostly Managed by Local Sanitary Board
After Merdeka	Urban by Municipals & Rural by Ministry of Health
June-93	Sewerage Act 1993 (Act 518) was passed by Parliament
December-93	Dept. of Sewerage Services was formed as regulator for sewerage services under the SSA.
Before 1994	Sewerage Services were managed by 144 Individual Local Authorities
April-94	Indah Water took over sewerage management in most states in Peninsular Malaysia
June-00	Govt. Under Minister of Finance Incorporated took over IWK
June-06	Water Services Industry Act 2006 & SPAN approved by Parliament
January-08	Establishment of National Water Services Commission (SPAN) & enforcement of Water Services Industry Act 2006
Currently	Indah water provides sewerage services in 88 out of the 144 Local Authorities in Malaysia (*however not on holistic manner*). Rest of the areas is still managed on Ad-Hoc basic

Governance Structure for Sewerage Services

KeTTHA
KEMENTERIAN TENAGA, TEKNOLOGI HIJAU DAN AIR

Ministry of Energy, Green Technology & Water

Ministry of Finance

- 100% Equity
- Govt. Support Loan & Subsidy

Ministry of Natural Resources & Environment

SPAN
Suruhanjaya Perkhidmatan Air Negara

Regulator of Sewerage Services

Policy & Control of National Sewerage Agenda

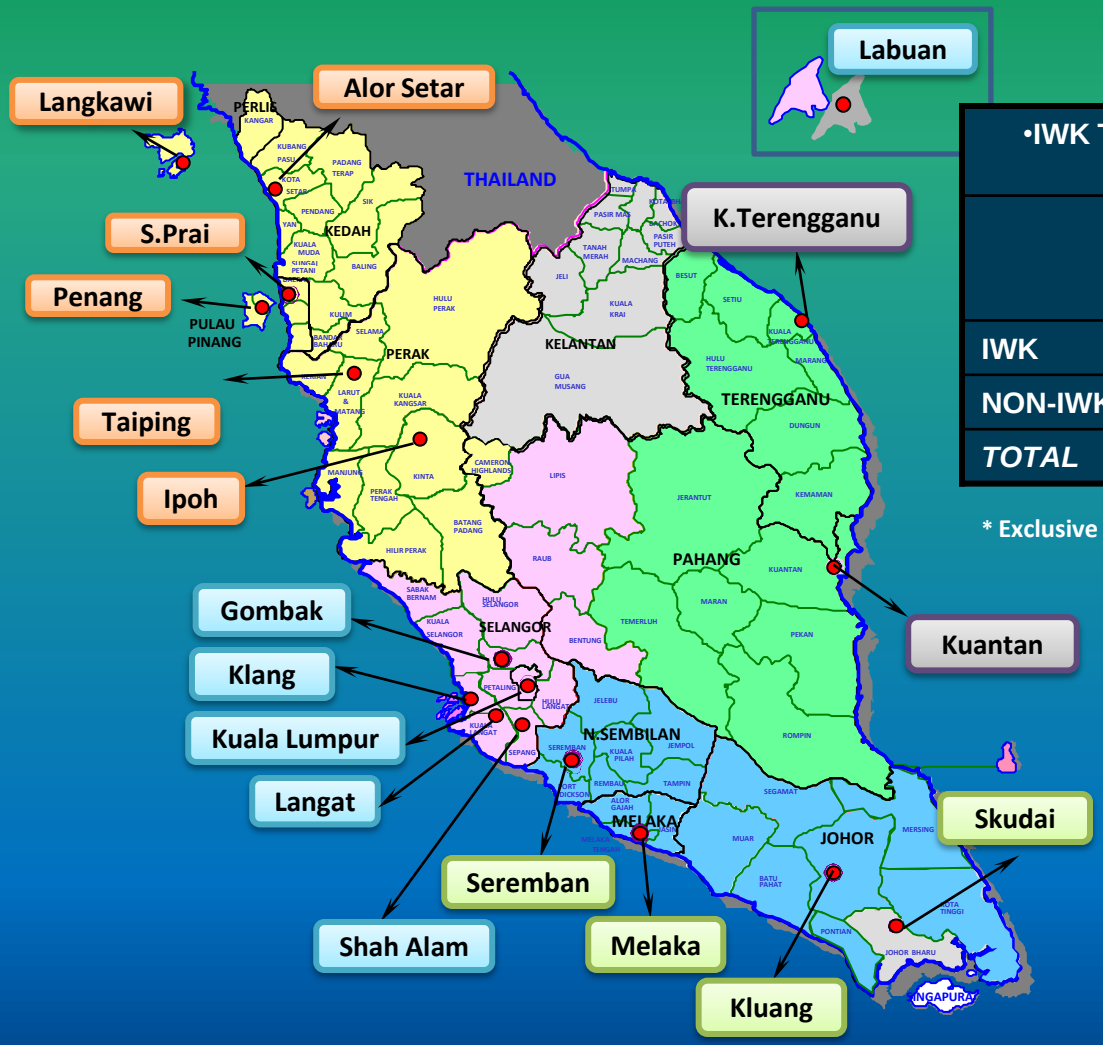
IndahWater

1. Sewerage Services
2. Operator in 88 Local Authority Areas.
3. Sewerage Services Billing & Collection.
4. Undertakes Refurbishment/ Upgrading Projects Funded by Govt.

Jabatan Alam Sekitar Malaysia

Regulator of Effluent standards

Areas of IWK Coverage and Resources

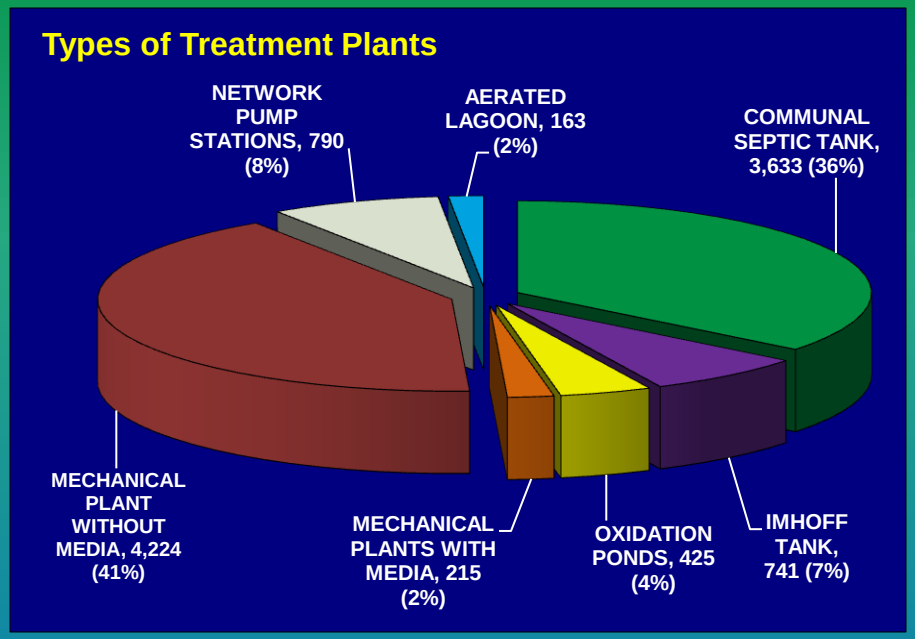


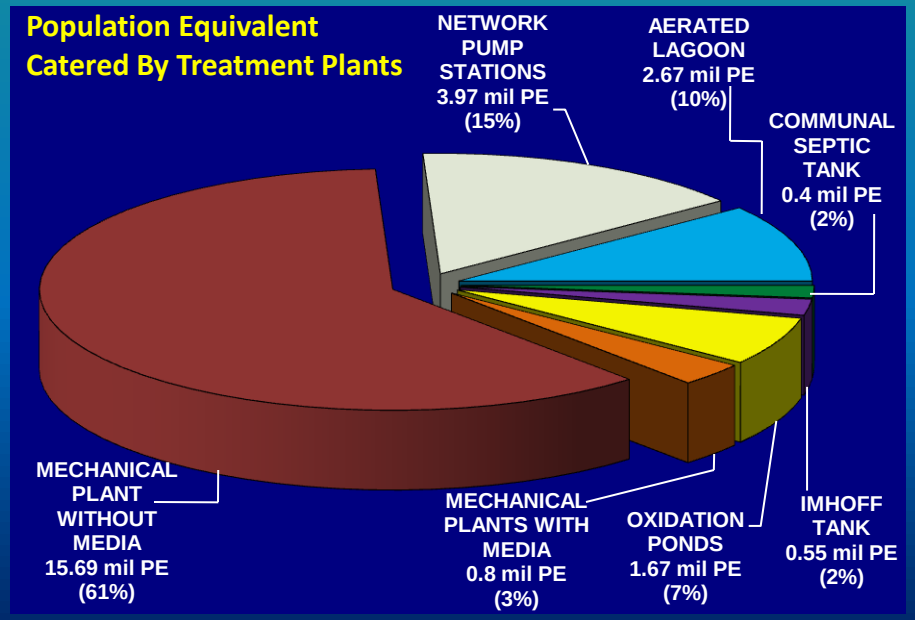
•IWK TOTAL OPERATIONAL AREA AND POPULATION SERVED (As at December 2010)				
	AREA (Sq. Km)	%	POPULATION EQUIVALENT (PE)	%
IWK	68,505.88	51.8	19,134,331	71.7
NON-IWK	63,769.54	48.2	7,361,729	28.3
TOTAL	132,275.42	100.0	26,695,297	100.0

* Exclusive of 2.96 million population utilising primitive (pour flush) systems

1. No. of Unit Office: 18
2. No. of Reporting Center: 48
3. No. of Laboratory facility: 3
4. No. of Certification Office: 11
5. No. of Regional Planning Office: 4
6. No. of Staff: 2,733
7. No. of Vehicle owned: 559
8. No of Local Authorities Served: 88

IWK's Assets and Population Equivalent Served





Communal Septic Tanks & Imhoff Tanks

Mechanical plants

Oxidation Pond

Aerated Lagoon

Pump Stations

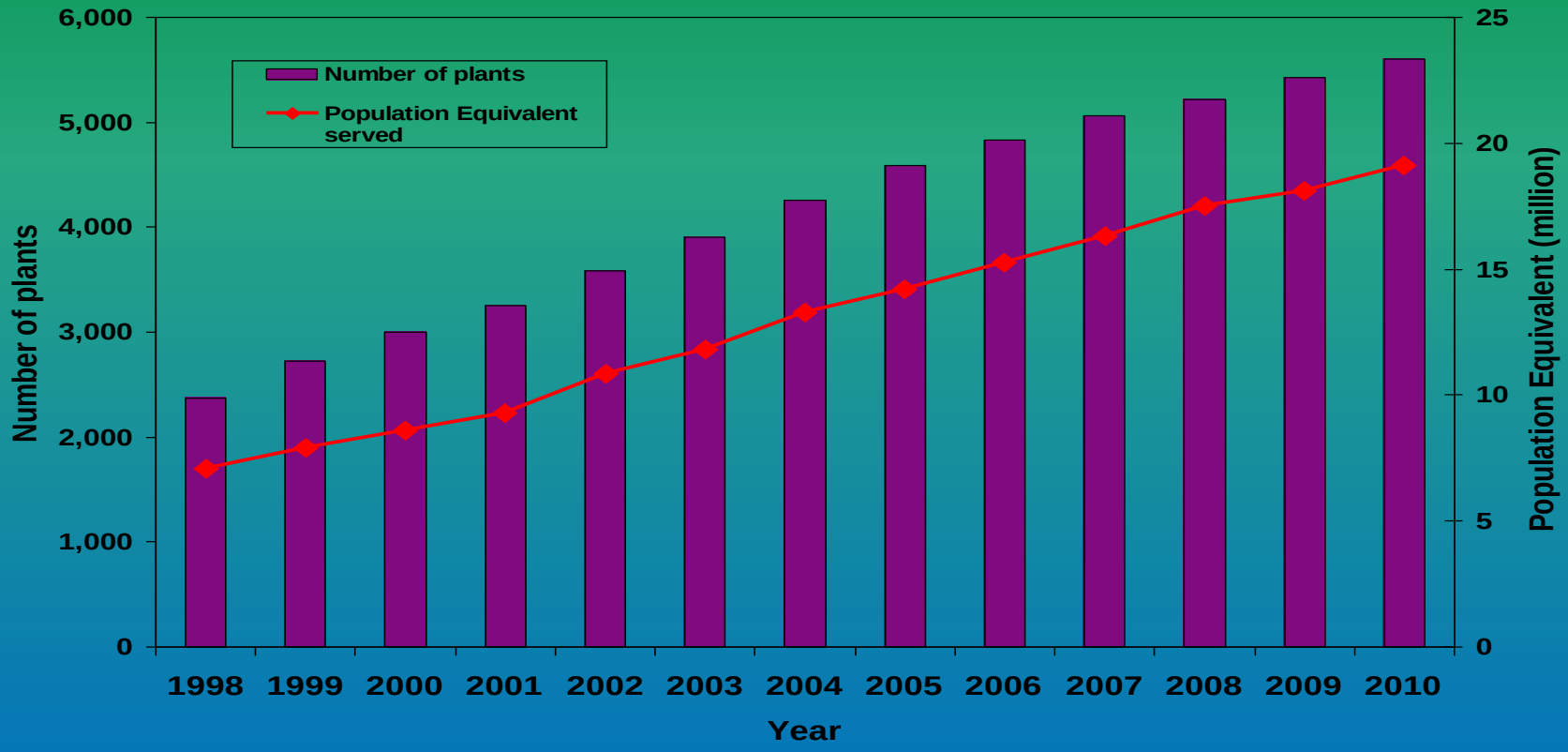
Pipe Network

Total Connected Population Equivalent Served by IWK is 18.7 million (excluding CSTs & NPSs).


Individual Septic Tanks

Approx. 1.2 mil Individual Septic Tanks and Population Equivalent Served by IWK is 6.1 mil.

Sewage Treatment Plants Growth



- Lack of investment in building large/regional STPs by the Government has resulted in the proliferations of small plants in new developments by developers.
- On the average about 300 STPs are built by developers & handed over to IWK to operate and maintain each year. **(83% of which are STPs less than 5,000 PE)**

Improvements In Sewerage Services Since Federalisation (1994)

Operation & Maintenance (O&M) Improvements

- O&M expertise for varied sewerage systems
- Efficient desludging services and septage management
- Effluent Compliances that contributes to improved water quality.

Sustainable Sewerage Planning & Development for Infrastructure Improvements

- Develop Guidelines and Standards
- Nationwide Catchments Strategy
- Integrated Financing strategy for Sewerage development

Customer Service & Awareness Program for Sustainable Services

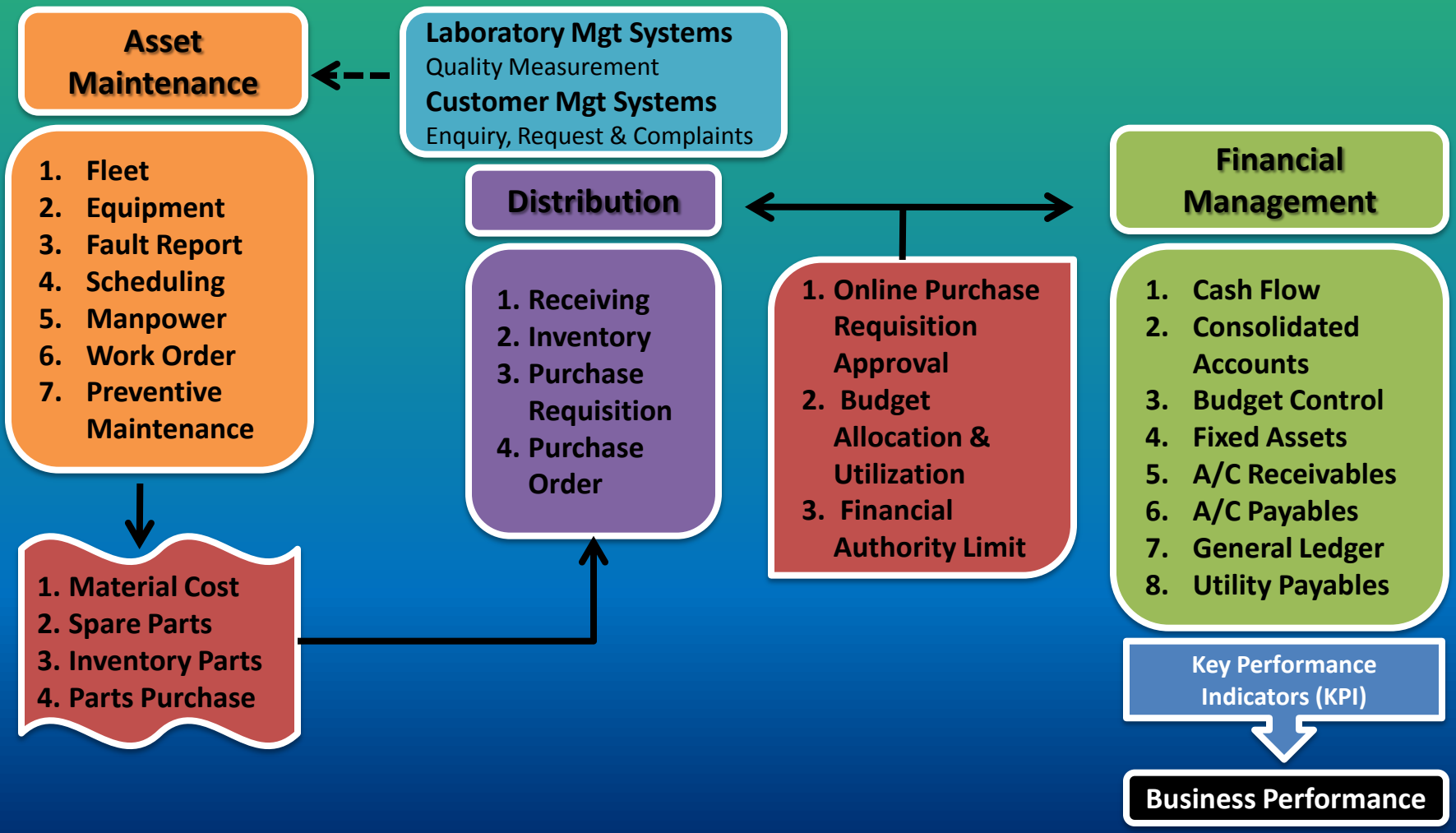
- Efficiently address operational complaints
- Improved Level of Service for customers
- Comperhensive Billing & Collection systems
- Communications and public outreach and education

Creating Value For The Sewerage Industry

- R&D for operational improvements & sustainable services
- Training & Accreditation services to develop skilled and knowledgeable workforce

Total Asset Management System

An integrated Financial, Asset, Laboratory, Customer Operations Enquiry & Desludging Management Systems to provide operational efficiency

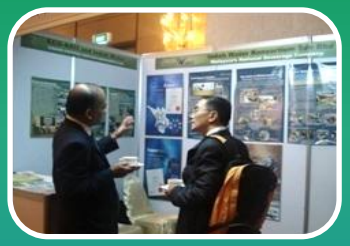


Capacity Building Initiative at International Level

Capacity Building for Urban Environmental Company URENCO Halong City, Vietnam

REGIONAL WATER AND SANITATION WORKSHOP AND TRAINING - Developing Comprehensive Septage Management Programs in Asia

Twinning partnership with Perusahan Daerah Air Minuman (PDAM) Tirtanadi, Medan, Indonesia



Waterlinks Forum at Bangkok

Study visit by NGO bodies from various city of Philippines

Date Visit: 14 December 2006

Technical visit from Vietnam Coastal City Environmental Sanitation Project

Date Visit: 5 – 7 October 2009

15th African Water Association Congress at Kampala

Date: 15 – 18 March 2010

Study Visit from TAIZ Water & Sanitation Local Corporation, Yemen

Date Visit: 22-26 January 2007

Study visit from Oman Wastewater Services Company

Date Visit: 10-12 September 2007

Technical Study Visit by Iranian Delegates

Date Visit: 13 November 2009

Technical visit by Philippine Department of Environment and Natural Resources Southern Mindanao on 20th – 21st July 2010

Diagnostic visit to Jemshedpur Utilities & Services Company Limited, India on 7th – 10th December 2010

Workshop for Philippine Multiple-Recipient Water Operator Partnership on 9th – 11th November 2010

Twinning Partnership with Maynilad Water Services, Philippines on January-August 2010

Twinning Partnership with Hai Phong Drainage and Sewerage Company (SADCO), Vietnam on Mac 2010-Sept 2010

Total Priority CAPEX Required FY 2011 to 2013

No	Project Category
Capex 1	**Refurbishment / Upgrading / Rationalisation**
Capex 1a	Refurbishment / Upgrading / Rationalisation to meet Cat 2 and Cat 3 Standards
Capex 1b	Brickwall Fencing to ensure safety and security
Capex 1c	Rationalise priority plants identified within the JBIC catchment to increase operational efficiencies
Capex 2	**Rehabilitation of Critical Sewer Network**
Capex 2a	Rehabilitation of Critical Sewer Network / Force Main to solve operational issues
Capex 2b	Sewer Profiling and Mapping to develop asset management plan
Capex 3	**Sludge Projects to meet current capacity/demand for sludge management***
Capex 4	**Pond Desludging to ensure compliance to Cat 2 requirements**

Phase 1 – Priority Needs Capital Expenditure Plan

Focus on Operational Enhancements and Compliance to Standards

- ✓ Refurbishment and upgrading of plants to meet new Category 1 standards;
- ✓ Sludge treatment facilities;
- ✓ Sewer rehabilitation program;
- ✓ Regionalistation and rationalisation in priority areas;

Item	Description
Refurbishment and upgrading of STPs to Cat 1 Stds.	4,600 STPs
Sewer rehabilitation	1,300 km
Sludge treatment facilities	30 Nos
Regional sewerage facilities	26 Nos

Long Term Needs Capital Expenditure Plan

Meets all objectives for the Sewerage Industry

- ✓ Refurbishment and upgrading of plants to meet new Category 1 standards;
- ✓ Rationalisation and regionalisation of plants;
- ✓ Sewer rehabilitation program and connection of premises to network;
- ✓ Develop new plants and sludge treatment facilities and land acquisition;
- ✓ Convert pour flush to ISTs
- ✓ Increase sullage connection to sewer network

Item	Description
Infrastructure upgrading and rationalisation	7,141 STPs
Sewer rehabilitation	1,319 km
Sludge treatment facilities	63 Nos
Regional sewerage facilities	178 Nos
Backlog connection (incl. sewer reticulation)	552,244 properties
Conversion of pour flush to ISTs	836,470 properties
Sullage Connection	244,034 properties

Sewerage CAPEX Fundings Sources

Current major CAPEX Fundings:

- **Malaysia Plan**
- **Funds via Government-to-Government arrangement**

Potential Sources of Financial for CAPEX

* **Malaysia Plan**
* **Government Grant**
* **Bond**
* **Sabah Credit Corporation**
* **Public Private Partnership / Private Finance Initiative**

Moving Forward

Progressing Towards
New Water
&
Sewerage Regime

NEW ENACTMENTS

Water Services Industry Act 2006(WSIA Act 655) and National Water Services Commission Act (SPAN Act 654) recently gazetted for enforcement

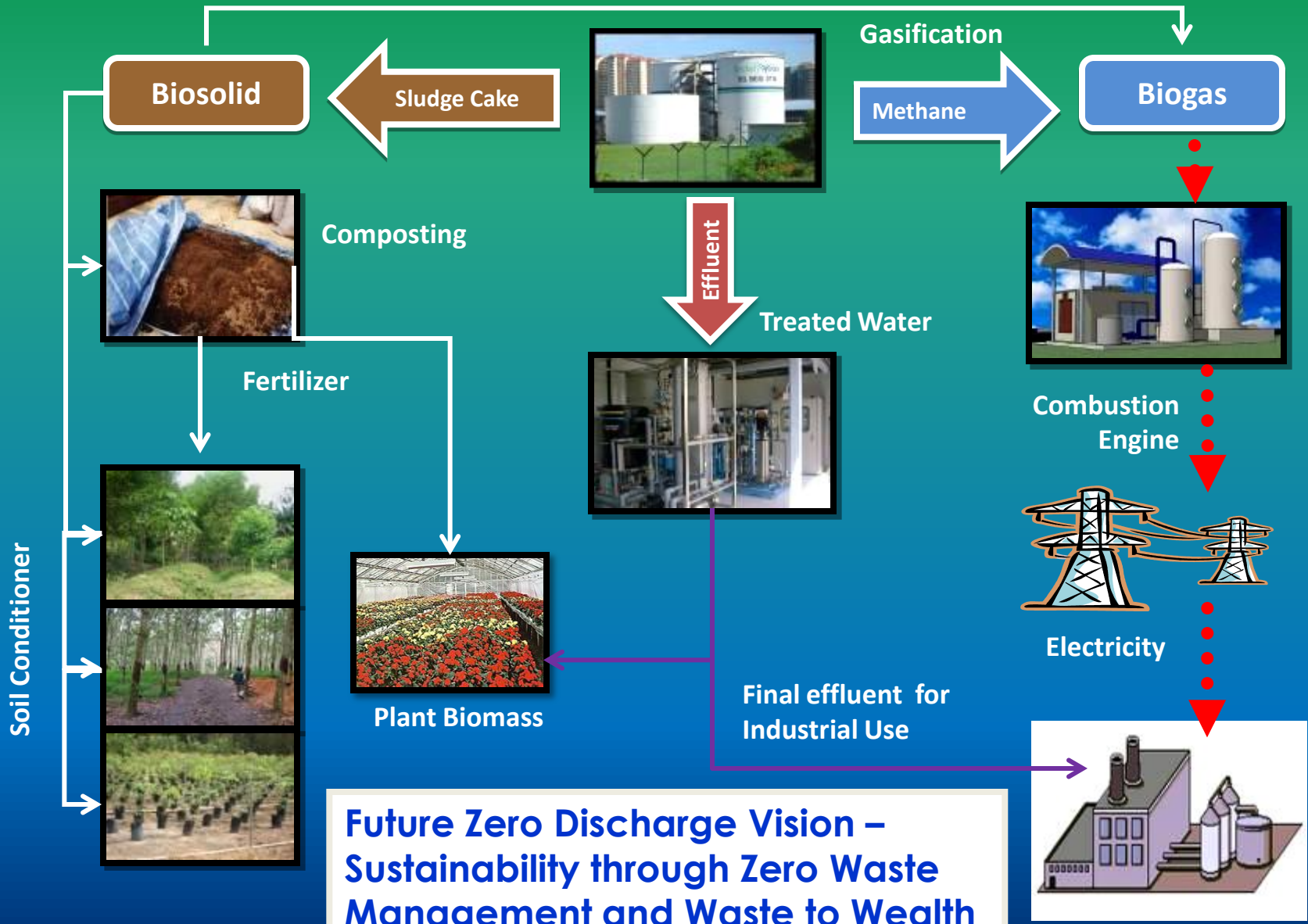
SPAN

New integrated regulator for water and wastewater services ("SPAN") was officially announced in February 07

WSIA

- WSIA offers resolution to critical issues for the sewerage industry such as billings & collection, refusal for individual septic tank desludging service and maintenance of private sewage treatment plants.

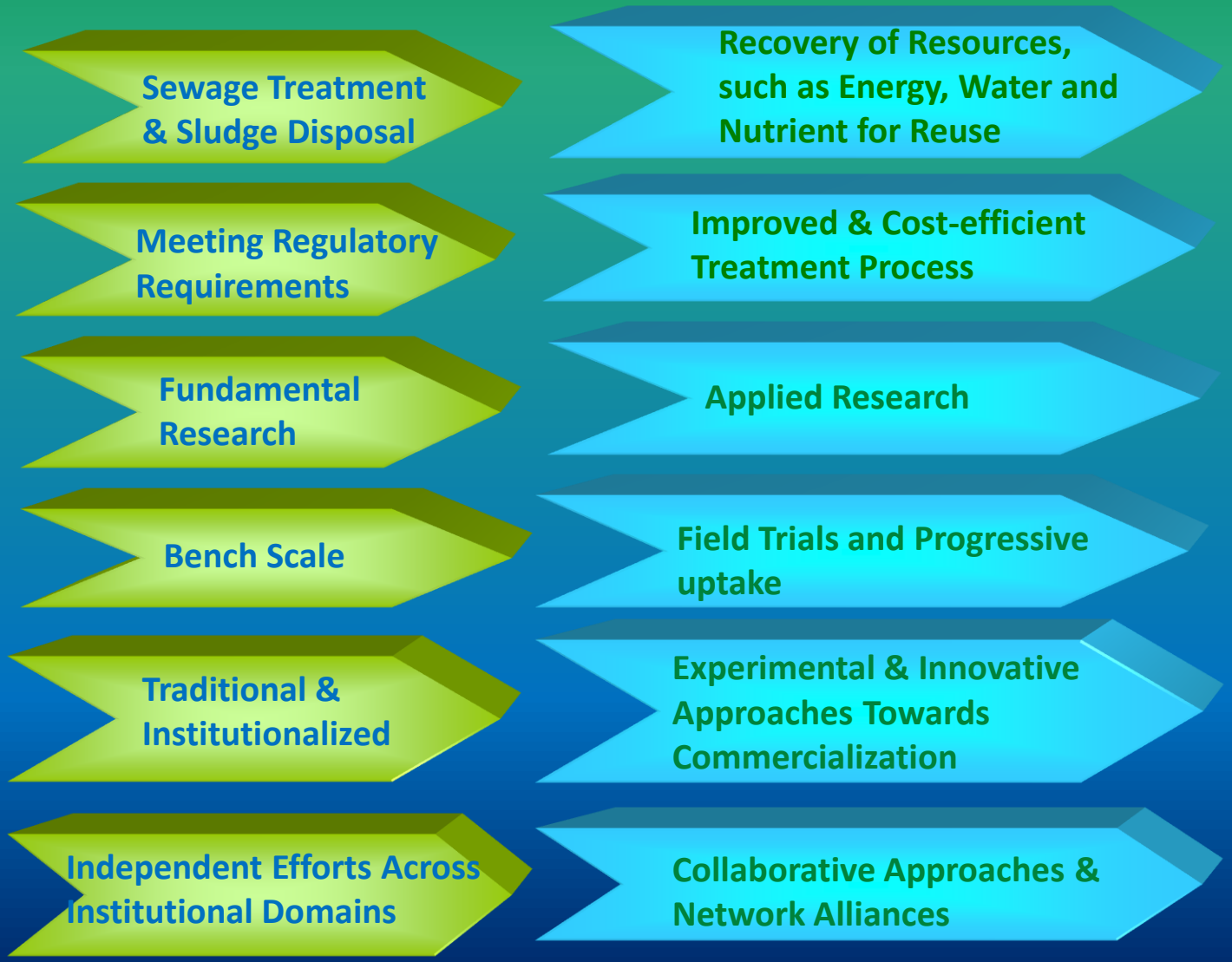
Green Technology For Sewerage Sector



Future Zero Discharge Vision – Sustainability through Zero Waste Management and Waste to Wealth

Research & Development For Green Technology

To ensure a sustainable future, R&D initiatives will need to look beyond:



Opportunities of Joint Efforts and Assistance In R&D For Green Technology Towards A Sustainable Future

Strategizing R&D Initiatives

Improve Network & Alliances:

Policy to promote partnerships & knowledge sharing.

Guidelines & Code of Practice with Model collaborative contracts.

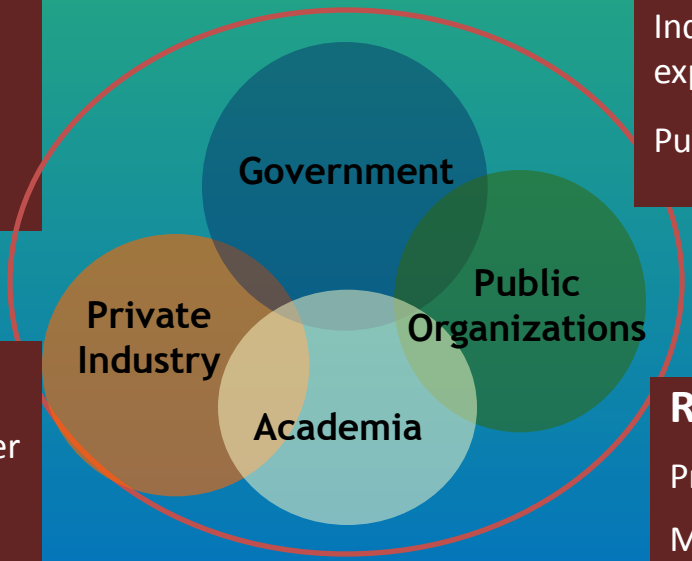
Establish routes & forms for dissemination.

Promote Niche Expertise:

Academia to lead in Fundamental and Nationwide research.

Industry to actively promote applied, experimental and innovative activities.

Public sector inputs on socio-economics.



Optimize Resources:

Dedicated funds for the wastewater sector 's priority areas.

Government subsidies for Pilot Projects in reuse.

Industry to provide test beds

Institutions to provide quality laboratory and analytical facilities.

Research Commission:

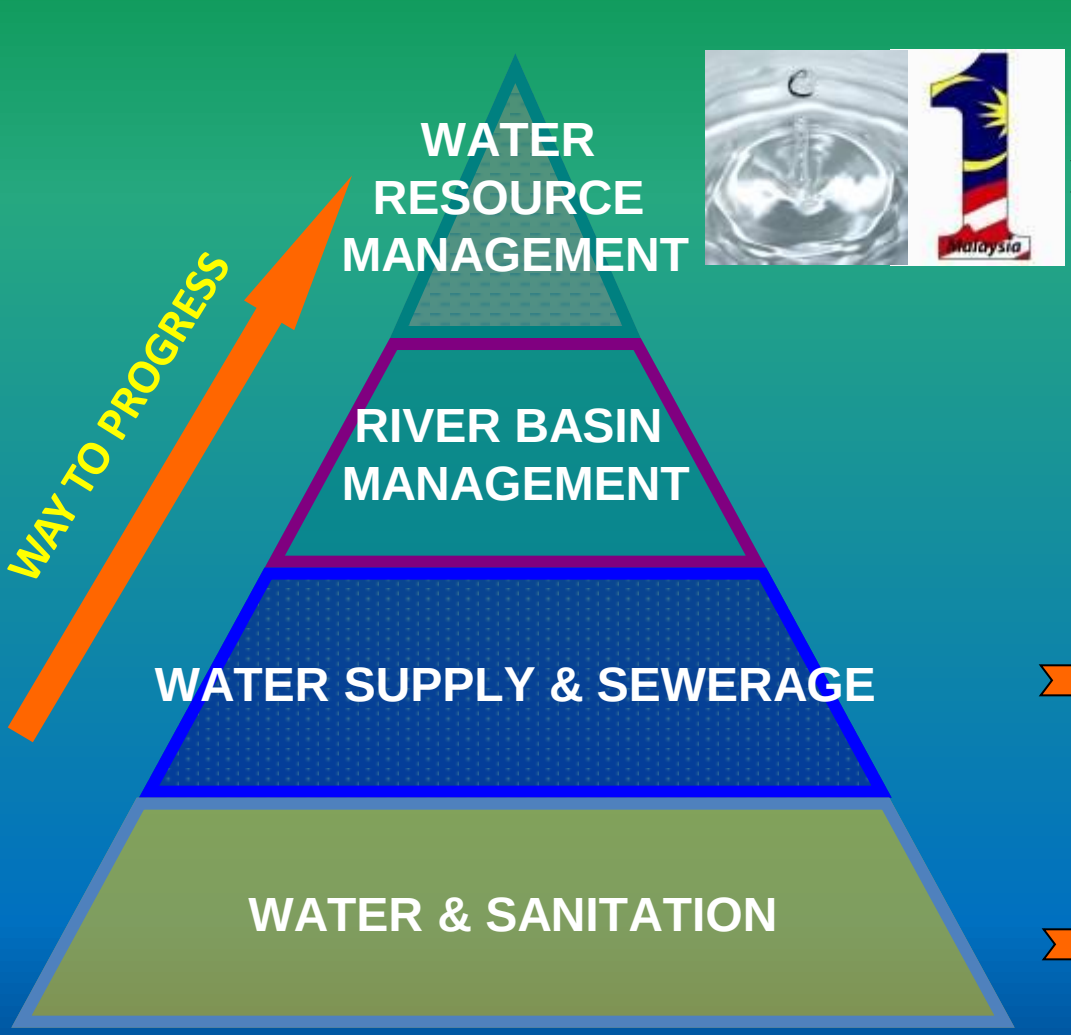
Prioritize R&D areas for the sector.

Manage dedicated funds, review proposals and award.

Manage dissemination routes and function as database depository.

Reward system for generation of IPs and Product commercialization.

Moving Towards 1 Water for 1 Malaysia



THANK YOU

For further enquiries kindly contact:

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A Presentation for the

PPP Council for Overseas Water Infrastructure

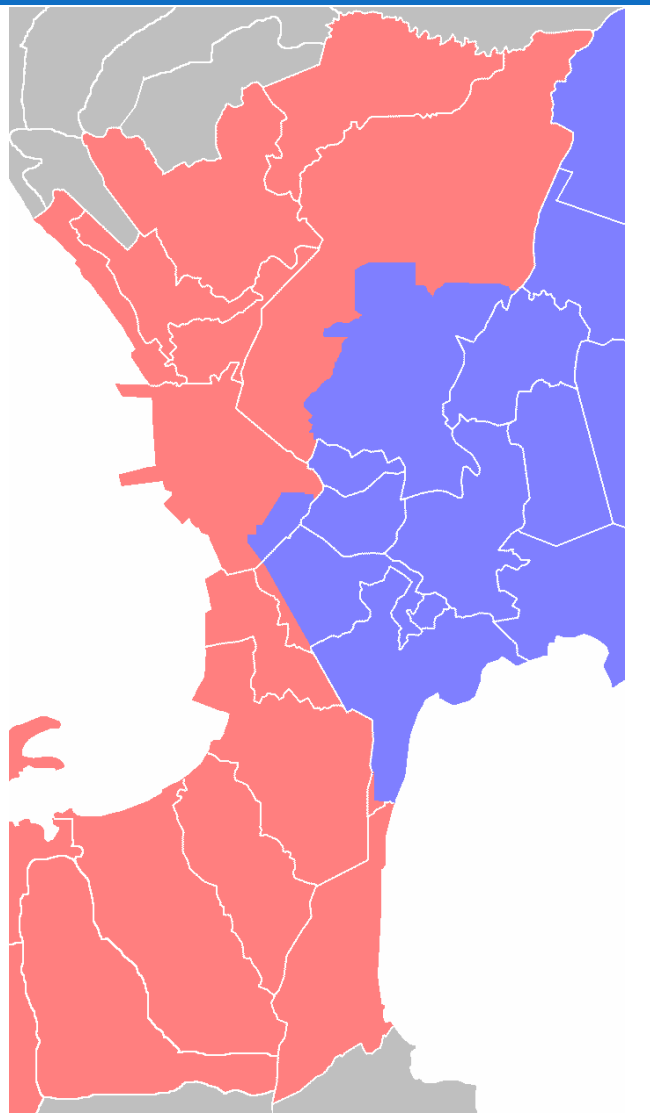
by Ramon Alikpala, Chairman

Metropolitan Waterworks and Sewerage System (MWSS)

DEVELOPING NEW WATER SOURCES FOR METRO MANILA

The Metropolitan Waterworks and Sewerage System (MWSS)

- The largest water privatization project in the world
- Services water supply and sewerage requirements of approximately 15 million people



MWSS Priorities for Next 6 Years

1. Development of New Water Sources
2. Development of Replacement Source for Irrigation

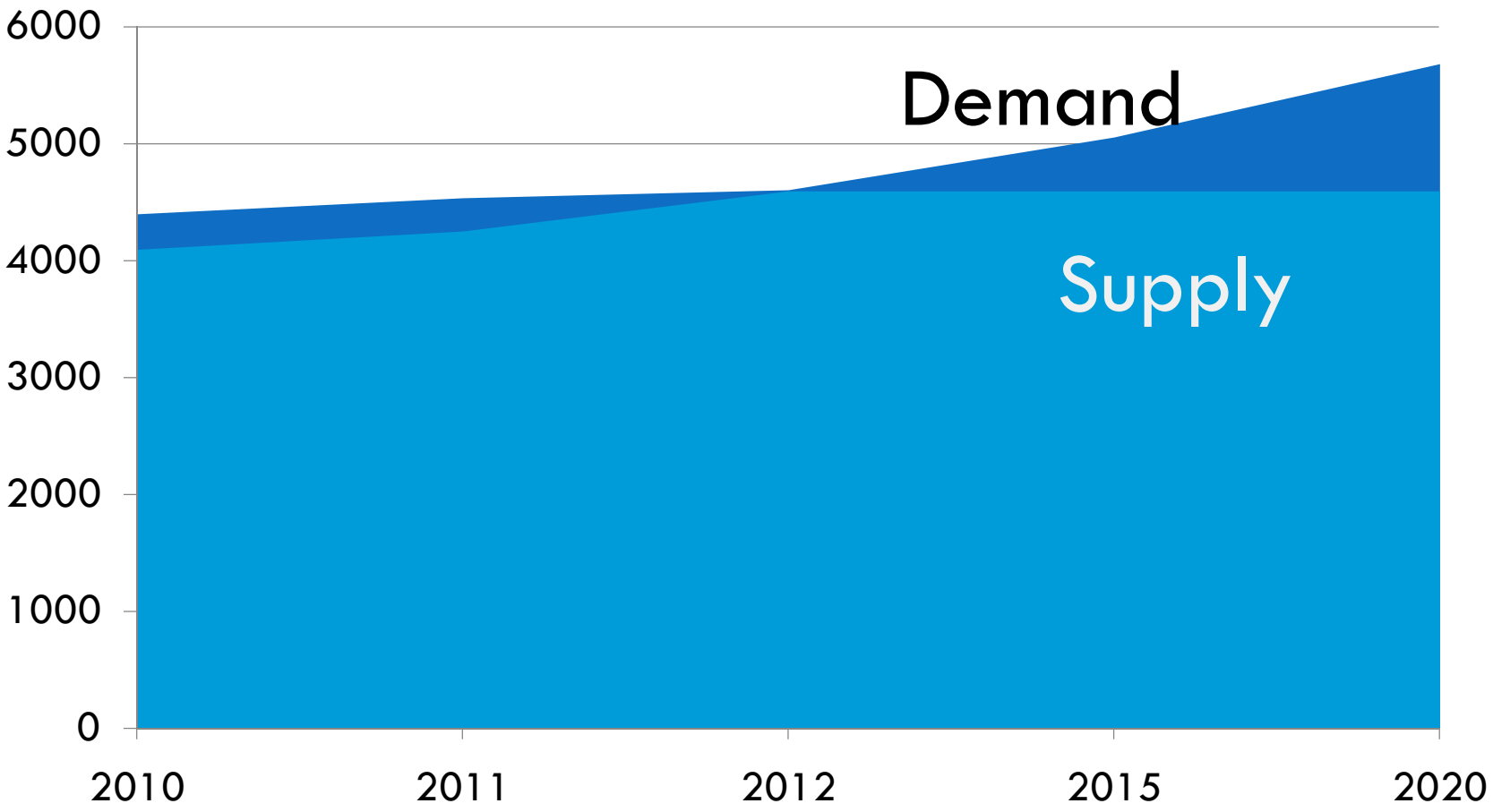
1. Development of New Water Sources

- **Angat Dam** - the only present source of water supply for the MWSS service area serving a total of 13 million population out of the total service population of 15 million, or only **87%** total service coverage.

- Angat Dam provides a supply volume of 4,000 million liters per day (4,000 mld) out of the present demand of 4,395 mld, or a deficit of 395 mld.

- By 2015, the projected demand is expected to reach 5,054 mld, thus requiring the development of supplementary sources of water to address the increasing demand.

Current Supply – Demand Projections
(MLD)



Potential Sources

Source	Potential Volume	Estimated Cost
Kaliwa River	550 MLD	US$510 M
Laiban	1,900 MLD	US$1,450 M
Kanan River	3,270 MLD	US$1,370 M
Laguna Rivers	300 MLD	NA
Wawa River	50 MLD	US$100 M
Laguna Lake	500 MLD	NA

1. Development of New Water Sources

Current Status

- World Bank has committed to undertake a study for MWSS to:
  - to validate water demand projections
  - to undertake the necessary updating, comparative evaluation and prioritization of the various new water sources identified, in order to come up with a new road map;
  - to prepare the first priority project biddable by 2012.
- For implementation in late 2011 or early 2012

2. Development of Replacement Source for Irrigation

- Angat Dam is a multi-purpose facility serving domestic water supply, power supply and irrigation water.
- MWSS' present water allocation in the Angat Reservoir:

Original Allocation	=	22.0 cms
Conditional Allocation from Irrigation water rights	=	15.0 cms
Umiray-Angat Transbasin Tunnel	=	9.0 cms
TOTAL	=	46.0 cms
	or	4,000 mld

- Due to increasing water use conflicts between water supply and irrigation, a new irrigation source must be developed

Potential Sources

Source	Potential Volume	Estimated Cost
Apalit-Pampanga River	20 CMS	US$ 110 M
Pampanga River	20 CMS	US$ 110 M
Candaba	15 CMS	US$ 220 M
Balintingon	17 CMS	US$ 440 M

2. Development of Replacement Source for Irrigation

Current Status

- Technical Working Group (TWG) composed of MWSS, NIA and the Concessionaires (Maynilad and Manila Water) is preparing a Memorandum of Understanding (MOU) for the joint undertaking of the Project (re: **15 CMS Water Source Development Project**);
- The TWG will undertake study
  - to evaluate the most viable and best alternative replacement source;
  - to prepare the selected source biddable by 2012.

Summary

- **Moratorium**
  - While unsolicited proposals have been received, the MWSS Board recently approved a moratorium on the processing of further proposals.
- **World Bank Study**
  - World Bank is funding a comprehensive study to determine demand requirements. The study is also expected to identify the optimal source based on economic, environmental, social, and demand considerations.
- **New government policy for preference on solicited proposals**

Water supply & sanitation in sri lanka

Ministry of Water Supply & Drainage

National Water Supply & Drainage Board

January 2011

Introduction of the Country:

Geographical area - *64,000 Sq. km*

Population - 20 million

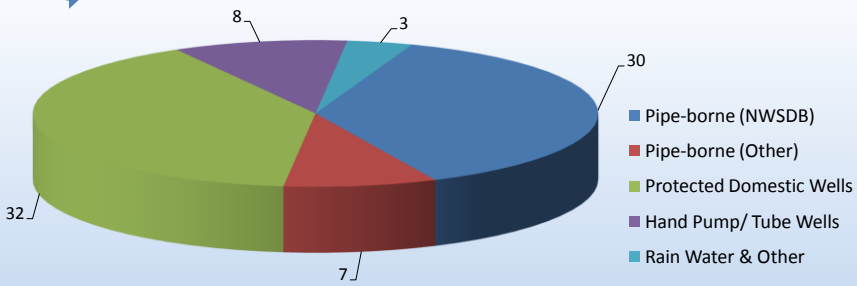
Ethnic - *Sinhala* - *73.9%*
Tamil - *18.2%*
Muslim - *7.1%*
Others - *0.8%*

Main Religions -
Buddhism, Hindu, Islam & Catholic

GDP - *US$ 2365 per capita*

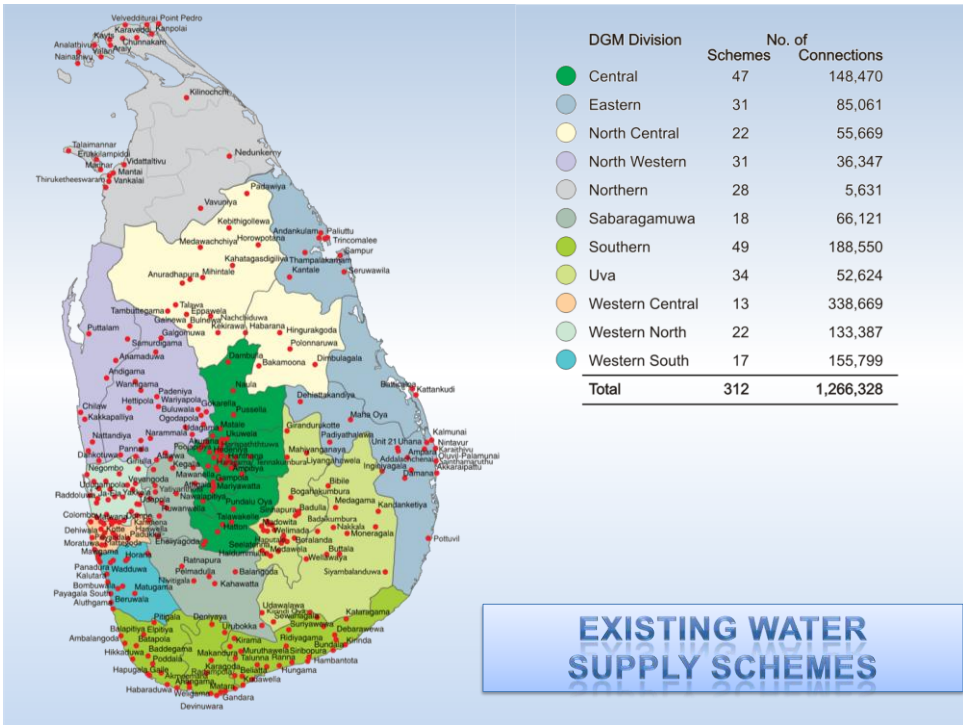
WATER SUPPLY COVERAGE

Water Supply Coverage	
Piped (Total)	37 %
NWSDB	30 %
Others	7 %
Safe water supply	80 %

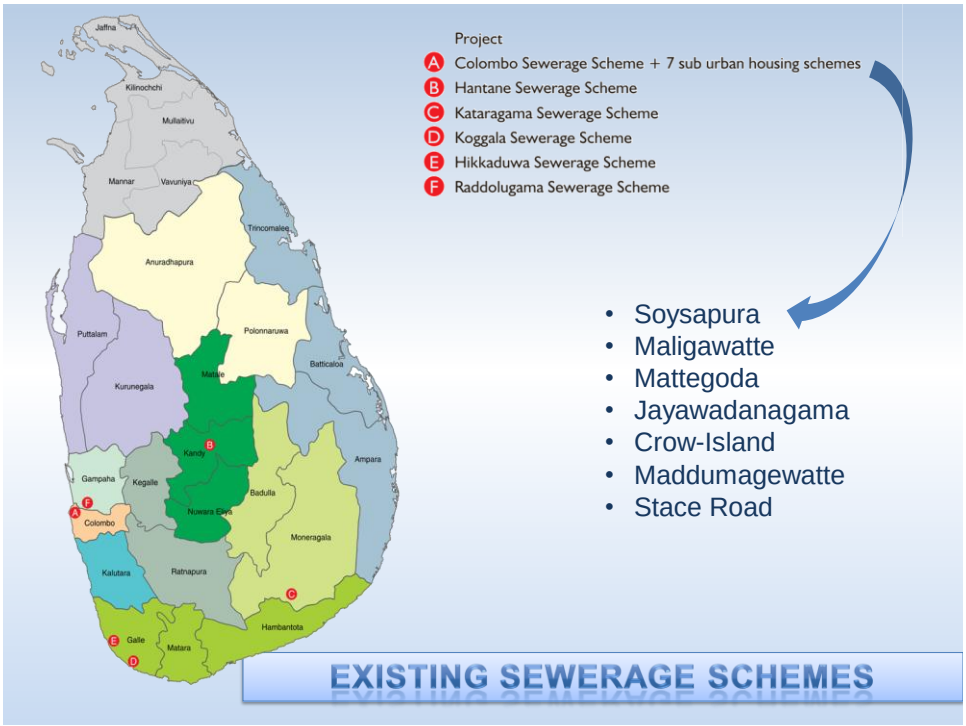


WATER & SEWERAGE COVERAGE (TARGETS)

	Actual 2009	NWSDB Target 2011	MDG Target 2015	MDG Target 2025
Water Supply Coverage				
Piped (Total)	37 %	41 %		
Safe water supply	80 %		85 %	100 %
Sewerage Coverage				
Piped	2.5 %	3 %		
On-site Sanitation	83.2 %			
Adequate Sanitation	85.7 %		87 %	100%



DGM Division	No. of Schemes	Connections
Central	47	148,470
Eastern	31	85,061
North Central	22	55,669
North Western	31	36,347
Northern	28	5,631
Sabaragamuwa	18	66,121
Southern	49	188,550
Uva	34	52,624
Western Central	13	338,669
Western North	22	133,387
Western South	17	155,799
Total	312	1,266,328



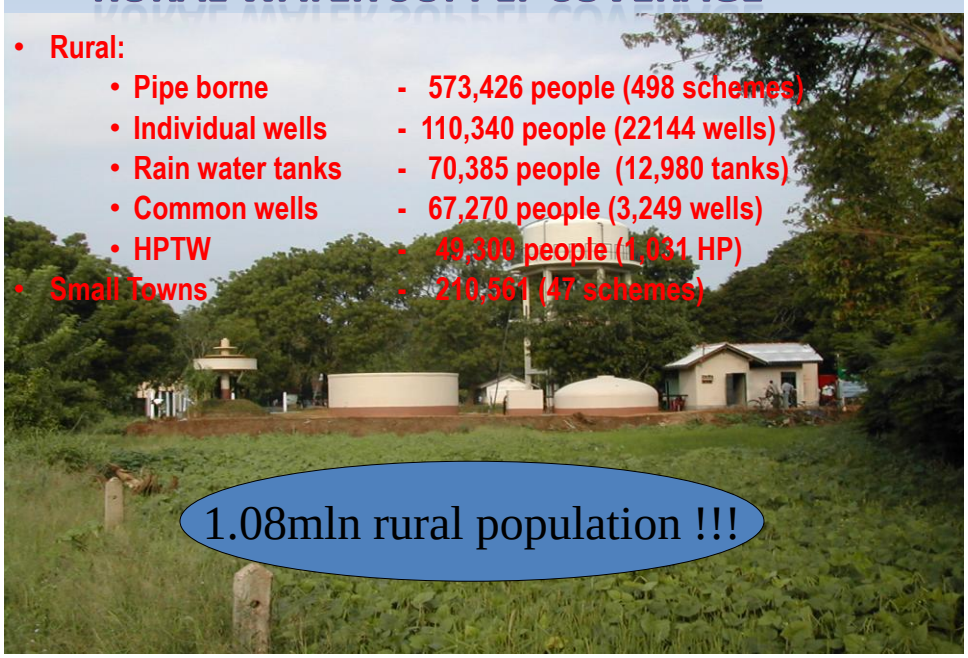
RURAL WATER SUPPLY POLICY;

- Water is a basic human need, which warrants for equitable allocation.
- Water has an economic value
- Provision of WSS should be people centred and demand driven.
- Beneficiary Involvement, Decision Making and Participatory Planning
- Women should play a central role in decision making process .

RURAL WATER SUPPLY & SANITATION

- Large-scale community participatory rural water supply projects
- ADB Assisted 3rd Water Supply & Sanitation Sector Project
- Secondary Towns and Community Based Water Supply & Sanitation Project
- More than 3,000 small-scale RWSSs were constructed by various government and non-governmental organizations
- They provide water to about 8% of total population of Sri Lanka.
- NWSDB established 17 RWS units attached to regional offices to provide necessary backup support for communities who run their own WSSs
- Identified another 4 Districts to establish RWS units
- Proposed a mechanism for assets transferring system for RWS schemes
- Identify a Water quality surveillance program for RWS schemes

RURAL WATER SUPPLY COVERAGE



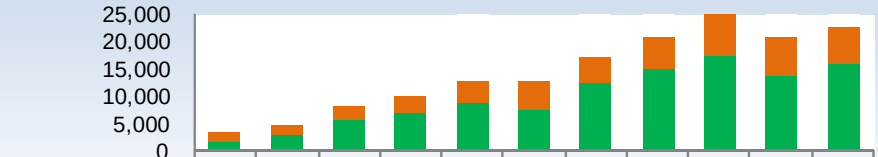
- Rural:
  - Pipe borne - 573,426 people (498 schemes)
  - Individual wells - 110,340 people (22144 wells)
  - Rain water tanks - 70,385 people (12,980 tanks)
  - Common wells - 67,270 people (3,249 wells)
  - HPTW - 49,300 people (1,031 HP)
- Small Towns - 210,561 (47 schemes)

1.08mln rural population !!!

SANITATION & HYGIENE EDUCATION

- Total GNDs covered: 1125
- Toilets completed : 83,000
- Institutional W&S: 237

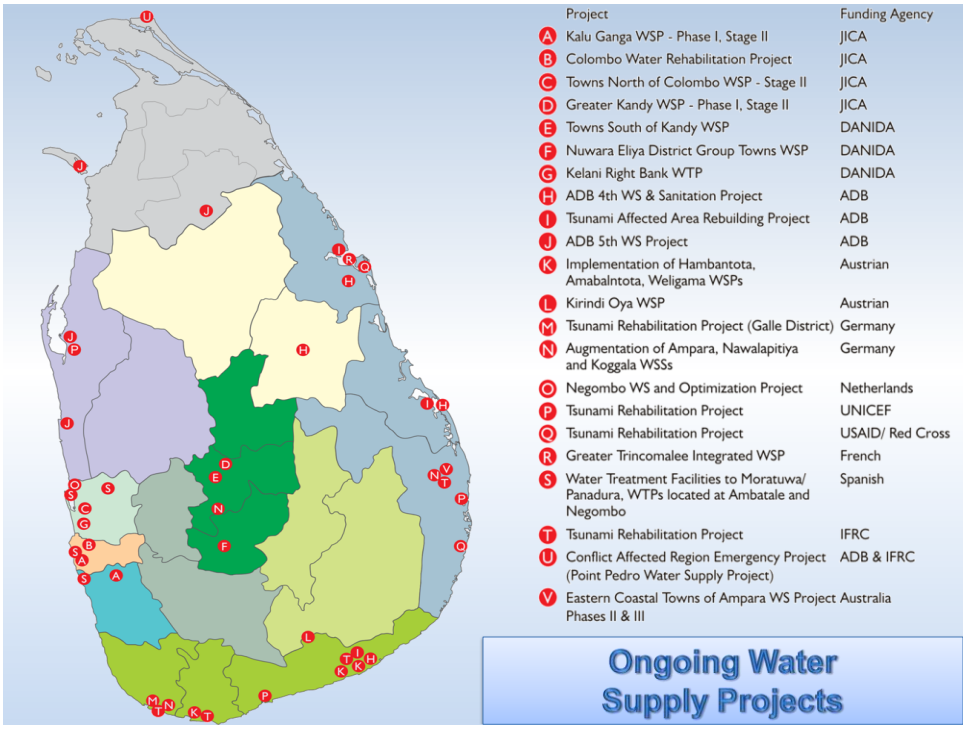
CAPITAL BUDGET UTILIZATION 1999 – 2010 (RS. MILLION)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
% Utilized	87	100	91	116	95	78	67	77	88	68	99
Allocation Local	1913	1966	2432	3352	3942	3944	5729	8371	8326	8597	6964
Allocation Foreign	2085	2836	6557	5479	9434	12187	20017	18880	20581	22263	15941
Utilization Local	1995	1966	2599	3335	4009	5082	4748	6060	7967	7298	6810
Utilization Foreign	1480	2836	5560	6905	8739	7566	12376	15028	17394	13838	15949

ONGOING WATER SUPPLY / SEWERAGE PROJECTS

Large-scale Water Supply Projects	22
Large-scale Sewerage Projects	4
Small & Medium Water Supply Projects	38
Reconstruction Tsunami effected Water Supply Project	5
Total	**69**



	Project	Funding Agency
A	Kalu Ganga WSP - Phase I, Stage II	JICA
B	Colombo Water Rehabilitation Project	JICA
C	Towns North of Colombo WSP - Stage II	JICA
D	Greater Kandy WSP - Phase I, Stage II	JICA
E	Towns South of Kandy WSP	DANIDA
F	Nuwara Eliya District Group Towns WSP	DANIDA
G	Kelani Right Bank WTP	DANIDA
H	ADB 4th WS & Sanitation Project	ADB
I	Tsunami Affected Area Rebuilding Project	ADB
J	ADB 5th WS Project	ADB
K	Implementation of Hambantota, Amabalntota, Weligama WSPs	Austrian
L	Kirindi Oya WSP	Austrian
M	Tsunami Rehabilitation Project (Galle District)	Germany
N	Augmentation of Ampara, Nawalapitiya and Koggala WSSs	Germany
O	Negombo WS and Optimization Project	Netherlands
P	Tsunami Rehabilitation Project	UNICEF
Q	Tsunami Rehabilitation Project	USAID/ Red Cross
R	Greater Trincomalee Integrated WSP	French
S	Water Treatment Facilities to Moratuwa/ Panadura, WTPs located at Ambatale and Negombo	Spanish
T	Tsunami Rehabilitation Project	IFRC
U	Conflict Affected Region Emergency Project (Point Pedro Water Supply Project)	ADB & IFRC
V	Eastern Coastal Towns of Ampara WS Project Phases II & III	Australia

Ongoing Water Supply Projects

NO OF FOREIGN FUNDED WATER SUPPLY PROJECTS ON GOING: 22

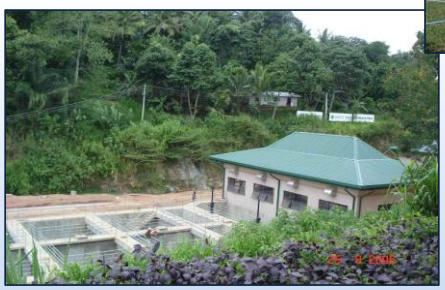
Expected Population to be served : 2,628,000

Total Cost Rs. 174,658 million

Foreign Component Rs. 123,751 million

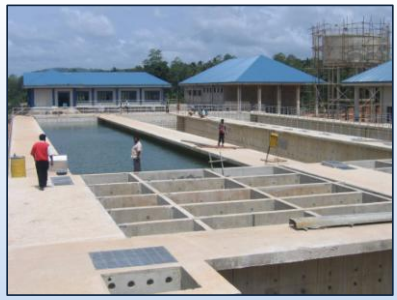
Local Component Rs. 50,907 million

GREATER KANDY WATER SUPPLY PROJECT

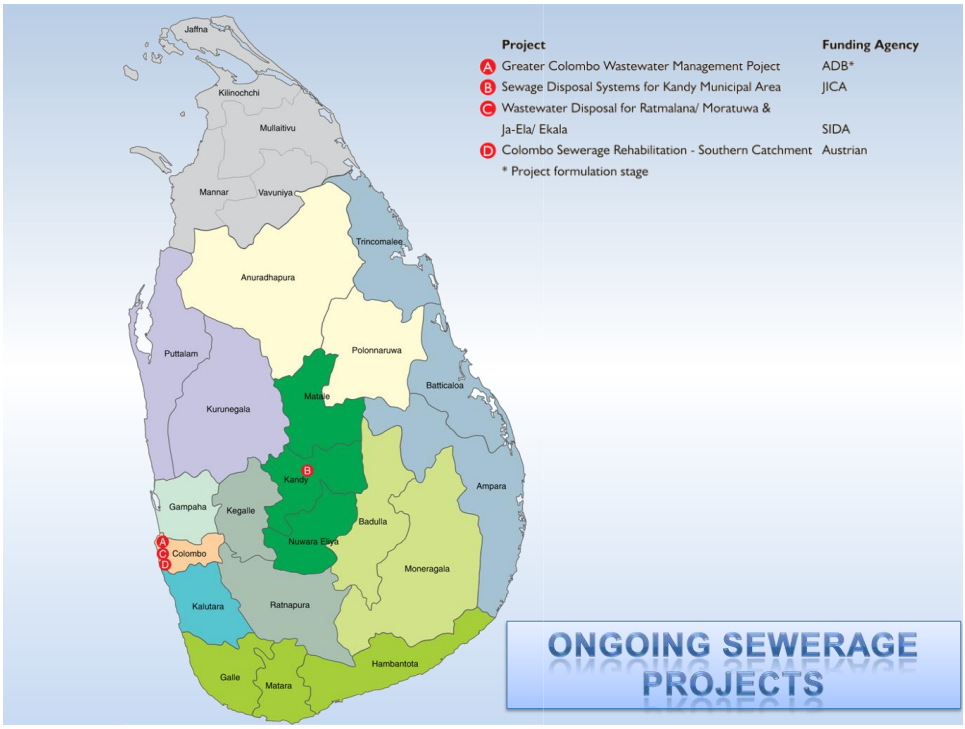


GREATER GALLE WATER SUPPLY PROJECT

KALU GANGA WATER SUPPLY PROJECT



TOWNS NORTH OF COLOMBO WATER SUPPLY PROJECT



NO OF FOREIGN FUNDED SEWERAGE PROJECTS ON GOING: 4

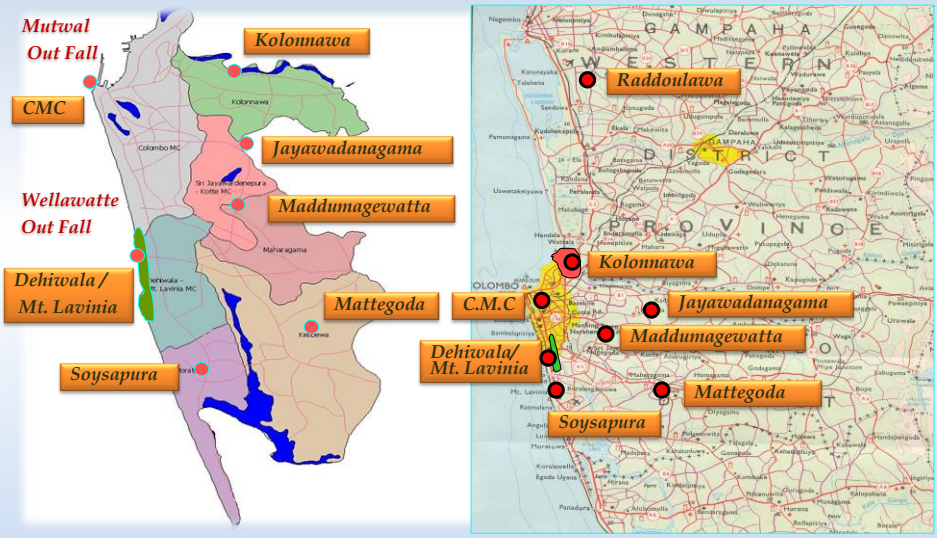
Expected Population to be served : 1,761,200

Total Cost Rs. 27,715 million

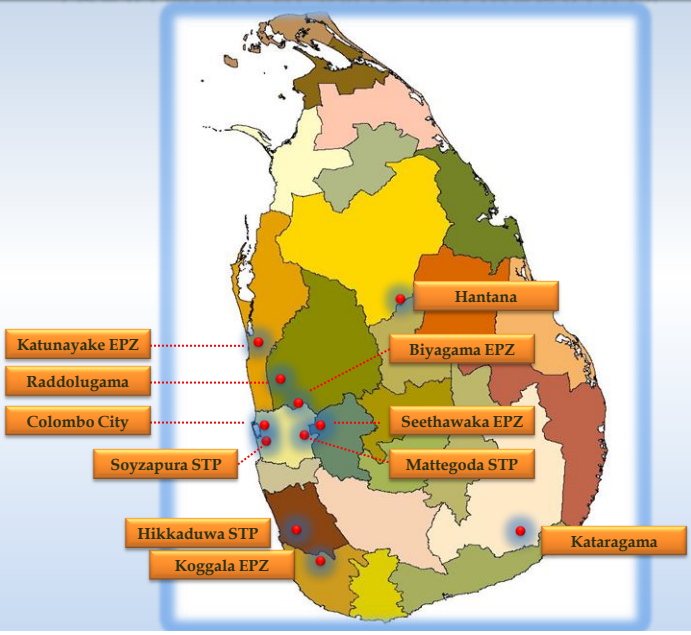
Foreign Component Rs. 20,141 million

Local Component Rs. 7,574million

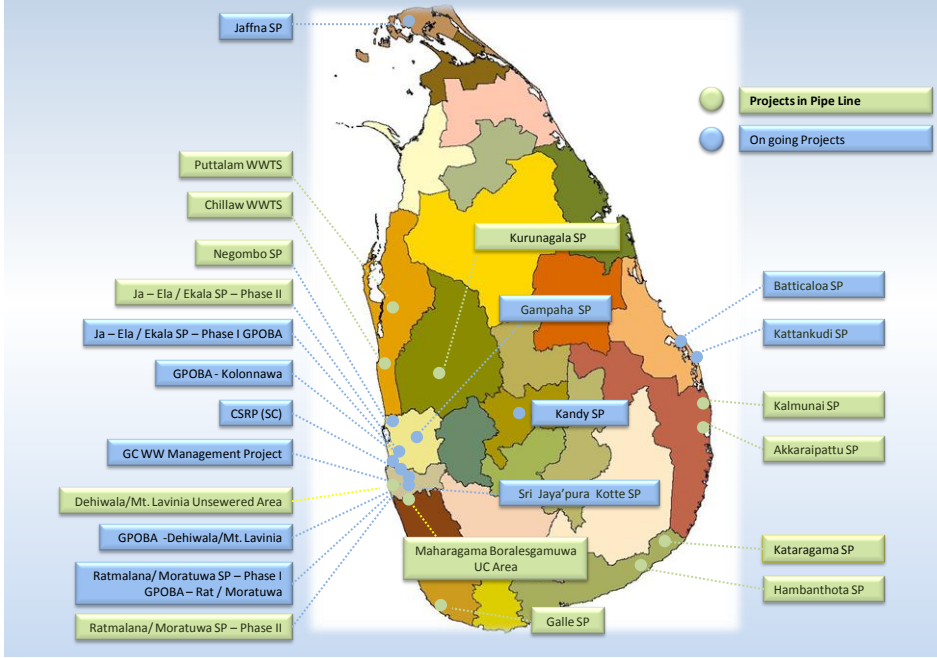
LOCATIONS OF SEWERAGE SCHEMES IN COLOMBO CITY AND SUBURBS



LOCATIONS OF MAJOR WASTEWATER TREATMENT PLANTS IN OPERATION



(ON-GOING AND PIPE LINE)

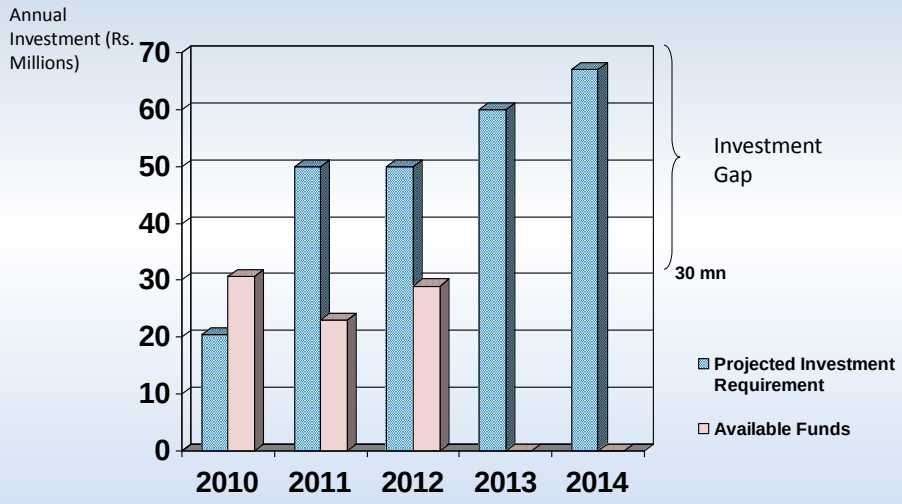


SEWERAGE COVERAGE

Sewerage Coverage

Piped	2.5 %
On-site Sanitation	83.2 %
Adequate Sanitation	85.7 %

INVESTMENT GAP



INVESTMENT - STRATEGIES

- Establishment of a Separate Unit to monitor and assess the financial and economic viability of the Project and to monitor the investment and financial forecasting.
- This Separate Unit to be assigned to assess the financial implications to the NWSDB of all investments to be undertaken.
- The Separate Unit shall analyze and recommend all possible investment alternatives.
- Special emphasis to be given towards development of low cost (*low per capita investment*) solutions to achieve sector targets.
- Harnessing private capital to the sector through BOO/BOOT type PPP arrangements.

Thank you!

MINISTRY OF CONSTRUCTION VIET NAM

PUBLIC – PRIVATE PARTNERSHIP IN THE FIELD OF INFRASTRUCTURE

Dr. Nguyễn Hồng Tiến

Hà Nội, January 2011

Before implementing PPP pilot projects in Vietnam, there have been projects that were implemented by some model such as: BOT, BT or BTO in some areas such as:

1. Transport project:

- Road way:

+ Hanoi – Hai phong highway (BOT).

+ Hanoi – Thai nguyen.

+ Cau Gie – Phap Van.

+ Nguyen Van Linh Boulevard (BT).

+ An Suong – An Lac Route (BOT).

- Bridge:

+ Phu My Bridge.

+ Rach Mieu Bridge.

2. Electricity projects:

+ Phu My 2 thremo-electricity

+ Phu My 3 thremo-electricity

+ Can don Hydroelectricity plant

3. Urban technical Infrastructure field: focusing on water supply area:

+ Thu Duc water plant

+ Dong Tam water plant – Tien Giang Province.

Some of remaining and difficulties when implementing BOT, BT projects

1. Most of projects applied form of assigning investors – Therefore reducing competition.
2. Using Government budget mostly (transport projects).
3. Mechanism and Policy unstable.
4. Task of repaying clearing the ground does not meet demands.
5. Measurement of mobilizing fund, promoting strength of communities for building up infrastructure basis is limited.
6. The cost, selling and buying price depends on Government's regulations…

Current difficulties and obstacles on attracting economic backgrounds to invest in water sector:

Sequence and procedure of investment: Some State enterprises running ineffectively but being protected caused exclusive rights on managing areas of supplying water – sector service that cause some difficulties to seek and set up investment projects.

Fund and resource to invest: Lack of loaned capital; sequence and procedure between Vietnamese Government and Donors….remaining differences; combination amongst Ministries, Organizations, local government is not effective.

Current difficulties and obstacles on attracting economic backgrounds to invest in water sector:

The cost of clean water and wastewater tariff : The cost of clean water is decided by the People Province Community (PPC) meanwhile principle of clean water cost has to be counted correctly and accordant with customers' budget and effort that is not now implemented…Therefore, the government budget has been compensating to ensure the cost for operating, remaining and repairing…

Land policy: unstable, clearing the ground, resettling, varying cost…making total investment cost increase higher than the beginning.

Principles for piloting investment under public-private partnership

1. Achieving the goal of attracting private and foreign investment in infrastructure development to provide public services.
2. Privately-owned capital contribution to the Project shall include the investor's equity, commercially viable capital funded by domestic and international sources, and any other capital sources to be mobilized subject to the principle that public debts will not occur.

Decision No 71/2010/QD-TTg dated 11 September 2010

3. Investor's equity capital must account for at least 30% of the privately-owned investment in the Project. Investor can obtain fundings from commercial loans, and from other sources (without Government guarantee) to the maximum being 70% of the privately-owned investment in the Project.
4. Investors implementing the Project shall be selected on a competitive, fair, transparent, economic efficiency basis, in compliance with Vietnam's laws and international customs and practices.

Areas of piloting investment under public-private partnership

1. Roads, bridges, tunnels, ferry.
2. Railway, railway bridges, railway tunnels.
3. Urban transport.
4. Airports, seaports, river ports.
5. Water supply system.
6. Power plant.
7. Healthcare (hospitals).
8. Environment (Solid waste treatment plants).
9. Other infrastructure development and public services supply projects as decided by the Prime Minister.

Tendering for selection of an investor

1. Based on the approved Feasibility study report, the authorized State body shall organize the preparation of tender invitation dossiers and hold open domestic or international tendering to select the project implementing investors. Tendering shall be in compliance with legal regulations on tendering and in accordance with international practices and customs, ensuring competition, fairness, transparency and economic efficiency.

Tendering for selection of an investor

2. The tender invitation dossier includes details of proposal evaluation criteria, bidding procedures, draft Project Contract, attached with the approved Feasibility study report, the proposed State Contribution in the Project, proposed investment guaranty mechanism of the Project.

3. The Authorized State Agency shall organize appraisal of investor selection result, invite opinions of Ministry of Planning and Investment before approval of investor selection result pursuant to the prevailing regulations.

Water supplying works that were determined in the planning should be called upon to invest following PPP model

1. Dicision No 2065/QD-TTg dated 12/11/2010 on approving the water supply plan for key region – Mekong delta area. Water Plants that are planned for serving inter-regions level.

- Song Hau I Water Plant: Capacity of phase 1: 500,000 cubic meter per day-night; phase 2: 500,000 cubic meter per day-night, located in Can Tho city.

- Song Hau II Water Plant: phase 1: 1,000,000 cubic meter per day-night, phase 2: 2,000,000 cubic meter per day-night in Chau Thanh – Long An.

- Song Hau III Water Plant: phase 1: 200.000m3/day-night; phase 2: 500.000m3/day-night in Chau Doc An Giang

2. According to Master Plan of building Hanoi capital:

Song Hong Water Plant: Expecting to be build at Lien trung commune – Dan Phuong district: capacity in 2020: 300.000m3/day-night; 2030 is 450.000m3/day-night (*Opacity of Hong River Surface Water is at high level. Therefore, it is necessary to build primary accumulation ponds to deposit sediment and store water)*.

Water supply scale : for inner-areas of Hanoi and Melinh, Dong Anh districts and a part of urban areas along the Belt 3 and Belt 4

- **THANHK YOU FOR YOUR ATTENTIONS**