



2nd Targeted Workshop for Asia and the Pacific

*Transforming Good Practices from
Demonstration
Projects into Scaled-Up
Investments and Financing*

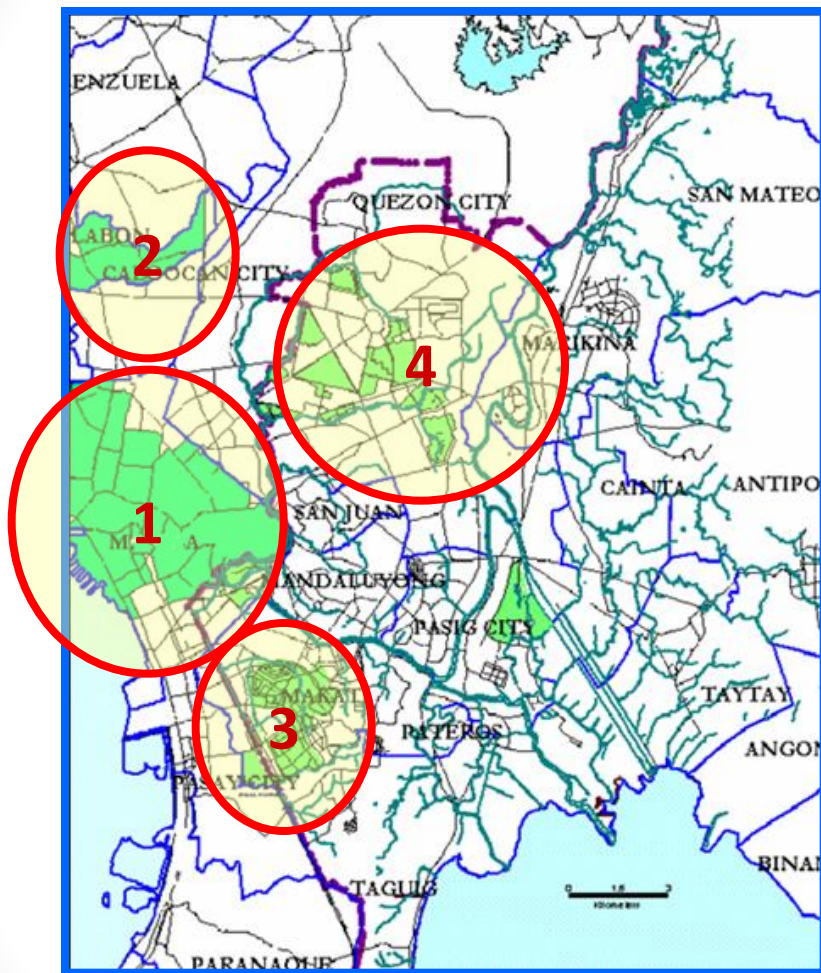
Scaling up Investments in Domestic Wastewater Treatment and Disposal in Metro Manila

Mark Mulingbayan (Manila Water Company)
& Frankie Arellano (Maynilad Water Services)



IW: LEARN Regional Workshop
Manila, The Philippines
10 – 12 March 2014

Sewerage Infrastructure in 1997



1 Central Sewerage System

- ♦ outfall to Manila Bay
- ♦ 7 lift stations, 1 pump station
- ♦ 305 km sewer network
- ♦ 2,620 ha area served

2 Dagat-Dagatan System

- ♦ aerated lagoon
- ♦ 18 km sewer network
- ♦ 333 ha area served

3 Magallanes System

- ♦ Activated sludge WwTP
- ♦ 73 km sewer network
- ♦ 600 ha area served

4 Quezon City Separate System

- ♦ 31 communal septic tanks
- ♦ 114 km sewer network
- ♦ 1,300 ha area served

Compelling Reasons to Privatize

“We felt that even if the MWSS were run by saints, it would still be sorely inefficient because of the inherent weakness of government-owned and controlled corporations, particularly because of problems related to **personnel, procurement and financing.**”

- Mark Dumol. *The Manila Water Concession: A Key Government Official's Diary of the World's Largest Water Privatization* (2000)



National Water Crisis Act of 1995 & Privatization of Water Utility Operations in 1997



Metropolitan Waterworks and Sewerage System (MWSS)

CONCESSION
AGREEMENT

WEST ZONE

EAST ZONE



The Concession Agreement



Service Obligations,
Key Performance
Indicators and
Targets



Capital and
Operating
Expenditures



Full Cost Recovery
through Tariff

business plan review and rate-rebasing every 5 yrs

Evolution of Sewerage and Sanitation Services (1997-2037)



**Household
Septic Tank
Desludging**



Combined Systems

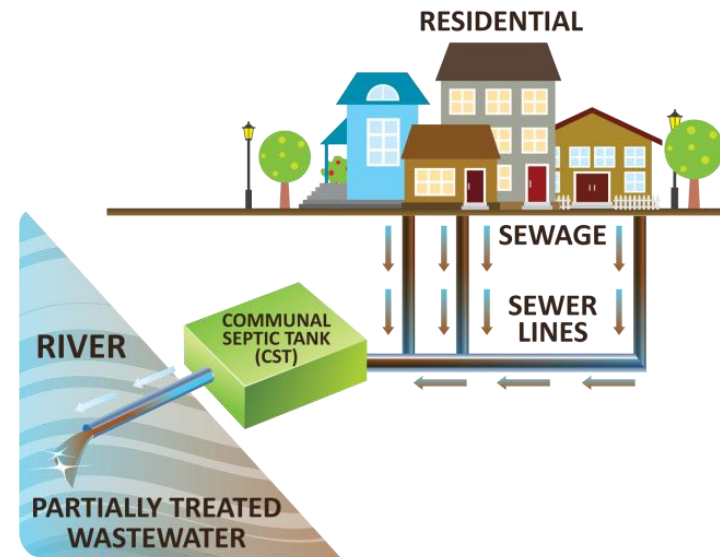
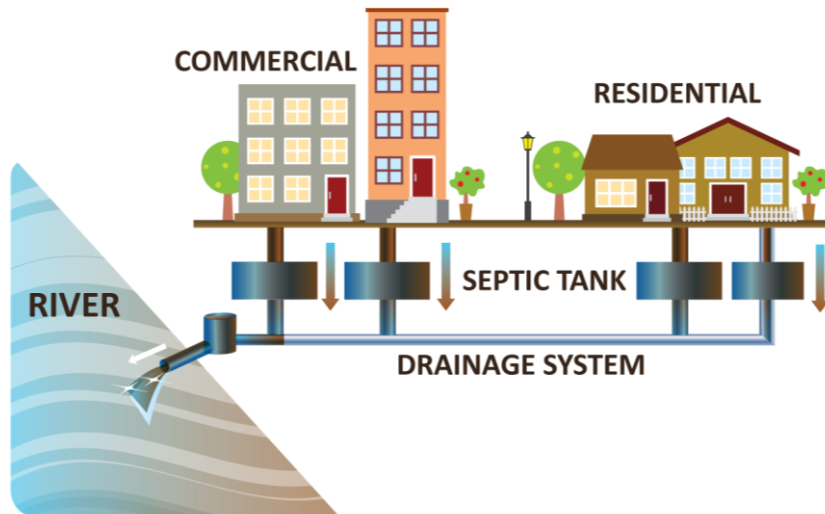
Septic Tank Desludging
+
Interception & Treatment of Water
in Street Drains within Sub-
catchments



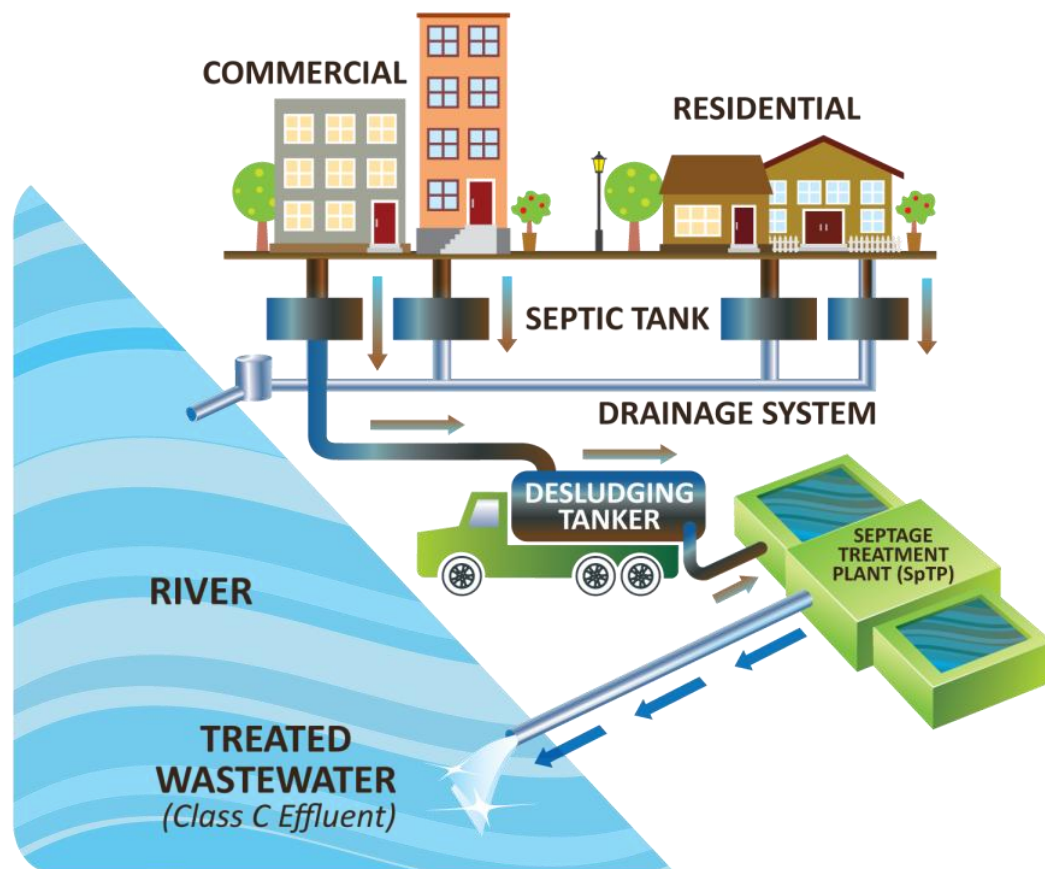
**Separate Sewer
Systems**
in Large
Sub-Catchments

**Onsite/
Decentralized
Separate Sewer
Systems**

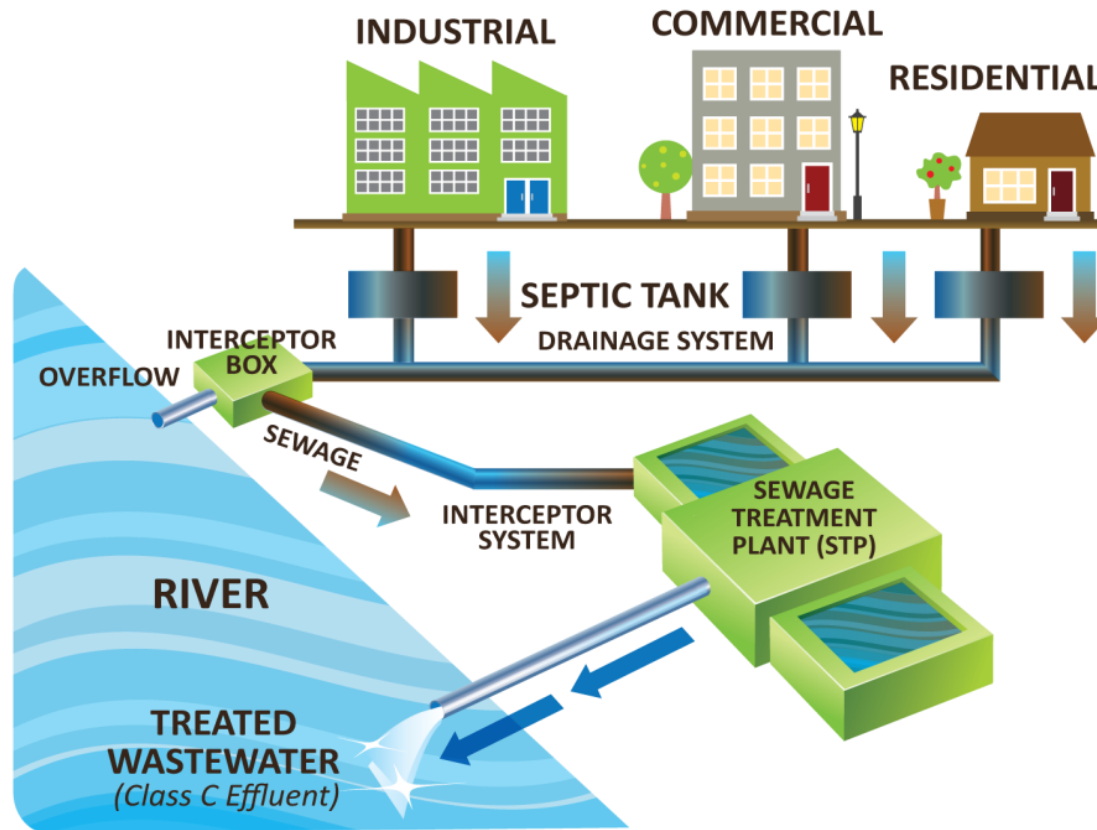
What was there before



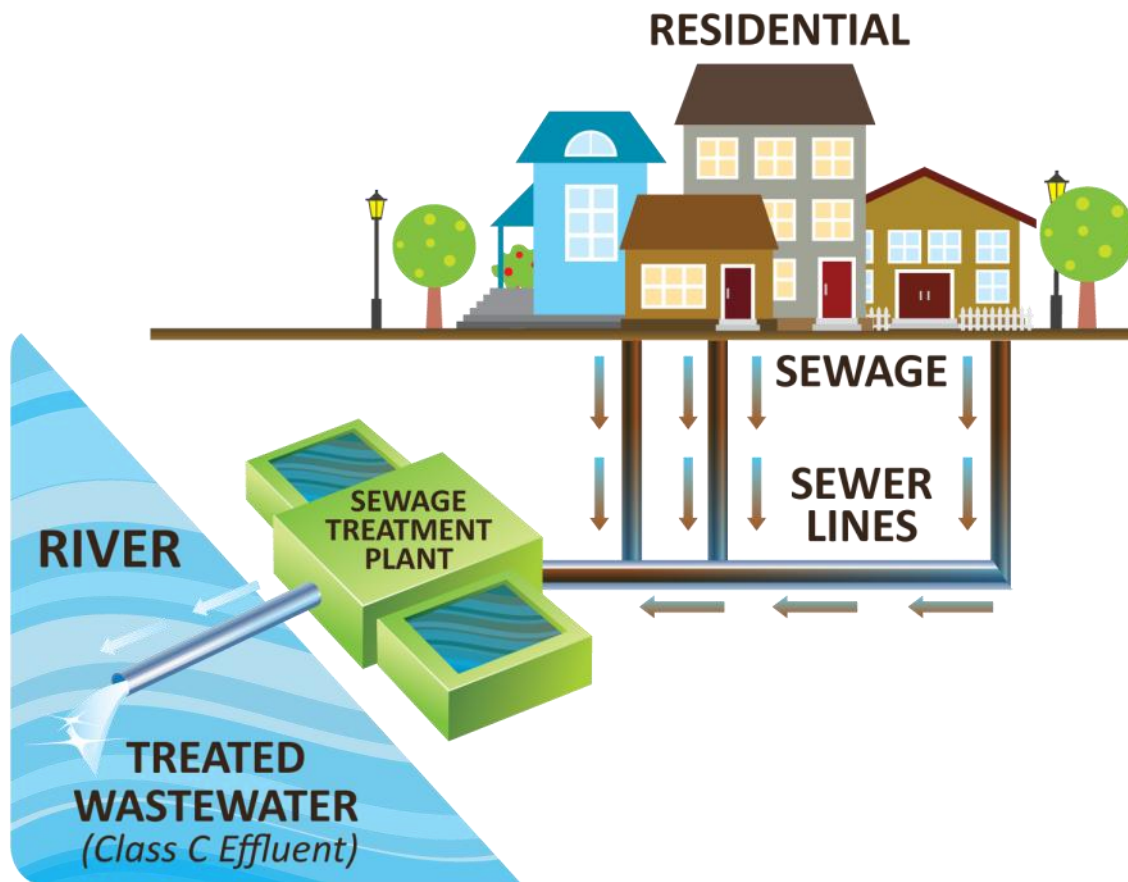
Septic tank management ('sanitation')



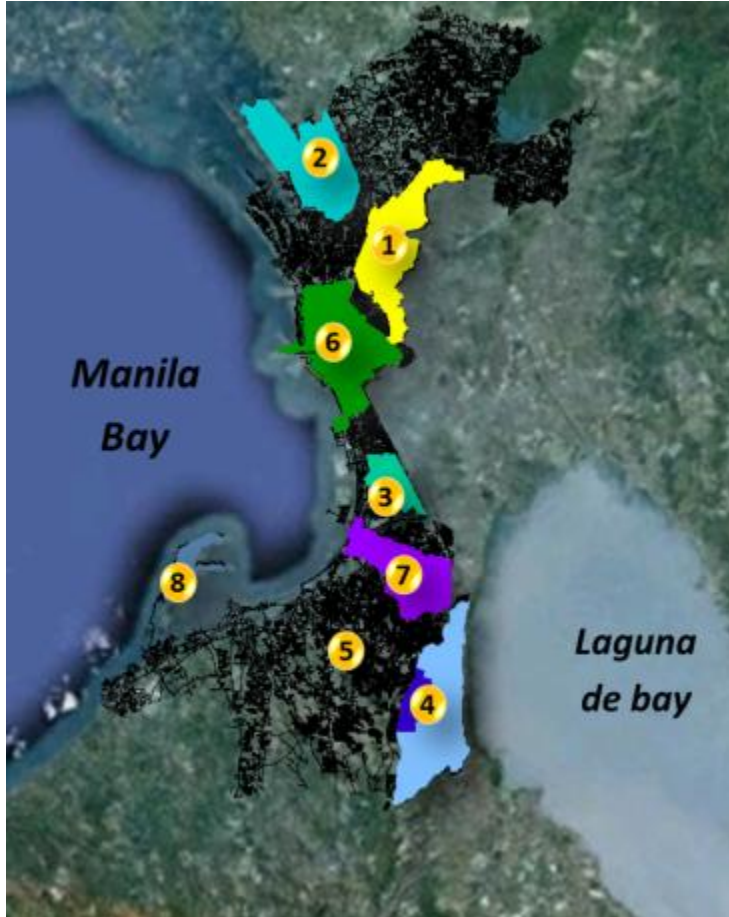
Combined Systems with full treatment



Separate Systems with full treatment

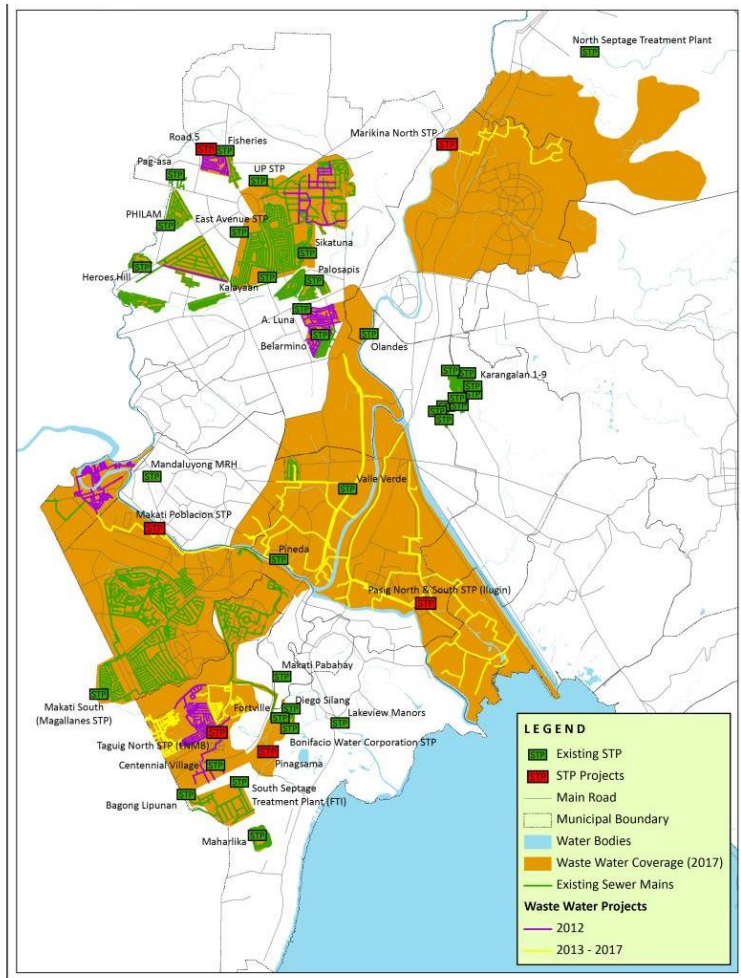


Maynilad (West Zone) Wastewater Projects and Facilities



- 5 Treatment Plants with 494,000 m³/day capacity (separate system) and 15 Treatment Plants with 55,000 m³/day capacity (combined system)
- 1 Septage Treatment Plant with 370 m³/day capacity
- 7 facilities under development/construction with 300,000 m³/day capacity 1 SepTP with 250 m³/day capacity

Manila Water (East Zone) Wastewater Projects and Facilities



- 37 Sewage Treatment Plants with 130,000 m³/day total capacity
- 2 Septage Treatment Plants with 1,400 m³/day capacity
- 3 Sewage Treatment Plants under construction with 275,000 m³/day capacity

Challenges in Facility Development and Operations

- Congestion in the metropolis
 - Availability of land for wastewater facilities
 - Acquisition of right of way for sewer lines
- Solid wastes in the influent
- 'Uncontrollable' influent quality
- Capacity and Willingness to Pay
- Consistency in regulations and regulatory environment



Enablers

- Clean Water Act of 2004
- Supreme Court *mandamus* on government agencies for the cleanup of Manila Bay (December 2008)
- The Concession Agreement (1997-2022) and its extension to 2037



Best Practices

- Continuous coordination with key government agencies, e.g. DPWH, MMDA, LGUs
- Climate-resilient facilities
- Trenchless construction for sewer lines
- Upskilling of wastewater operators
- Policy advocacy with regulators, e.g. pre-treatment
- Engagements with the general public concerning need for wastewater and solid waste management
 - Water Trail (water and wastewater facility) tours
 - Partnerships on IEC, cleanup drives, etc.



Challenges Ahead

- More stringent effluent quality standards (e.g. nutrient removal)
- Enforcing pre-treatment from non-domestic sources
- Distinguishing the regulation of public water utilities from that of private industries
- Conflicts in regulators and water utility's interpretations of 'Polluters Pay Principle'
- Rationalizing the tariff structure
 - separate the wastewater bill from the water bill?
 - transparency of cross-subsidies





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THANK YOU!



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