3rd Asian Sanitation Dialogue

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Cities are growing at an unprecedented pace

Half of humanity lives in cities

In 20 years, 60% of the world's people will be urban dwellers

1 billion people in Asia added to Asian cities from 1980-2010

Another **1.1 billion** are expected by 2040

Source: WSP, UN, ADB

Access to water and sanitation is a priority

MDG Target 7.C:

"Halve, by 2015, the proportion of the population without sustainable access to safe drinking water & basic sanitation"

2 billion people gained access to improved drinking water sources

But 2.5 billion still lack access to improved sanitation facilities

Over 1 billion practice open defecation

Source: WSP, UN, ADB

In Asia, more people have access to water… But sanitation is lagging behind

About 90% of the population in Asia and the Pacific use piped water (44%) or other improved water sources (46%) as their source of drinking water

In **Eastern Asia** Sanitation coverage **increased from 27% to 67% between 1990 and 2011**

In **Southern Asia**, proportion of population using shared or unimproved facilities has **declined to 18%** but **39% still defecate in the open**

Pace of sanitation improvements **has not kept up with population growth**

Source: ADB, Key Indicators for Asia and the Pacific 2012 (Key Indicators), 43rd edition

Tremendous social and economic costs

$9.2 billion USD
economic costs of poor sanitation and hygiene in **East Asia**

$53.8 billion USD
amount lost each year to economic impacts of inadequate sanitation in **India**

Asian region needs $71 billion in investments for improved sanitation and $59 billion in investments for water supply

Source: WSP, UN

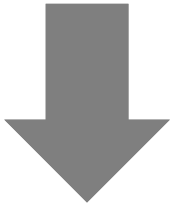
Cities are trapped in a vicious cycle of low investment & weak performance

Political priorities lead governments to favor other sectors

Inadequate information hampers policy-making and planning

Lack of transparency

Bureaucracy, excessive red tape and silos



- Low investment
- Poor performance
- Limited willingness to pay

Water resources are threatened by pollution and over-consumption

Preservation of natural resources goes hand in hand with poverty reduction, and Asian cities' ability to grow sustainably

Only 15–20% of wastewater in Asia receives some level of treatment before discharged into water resources

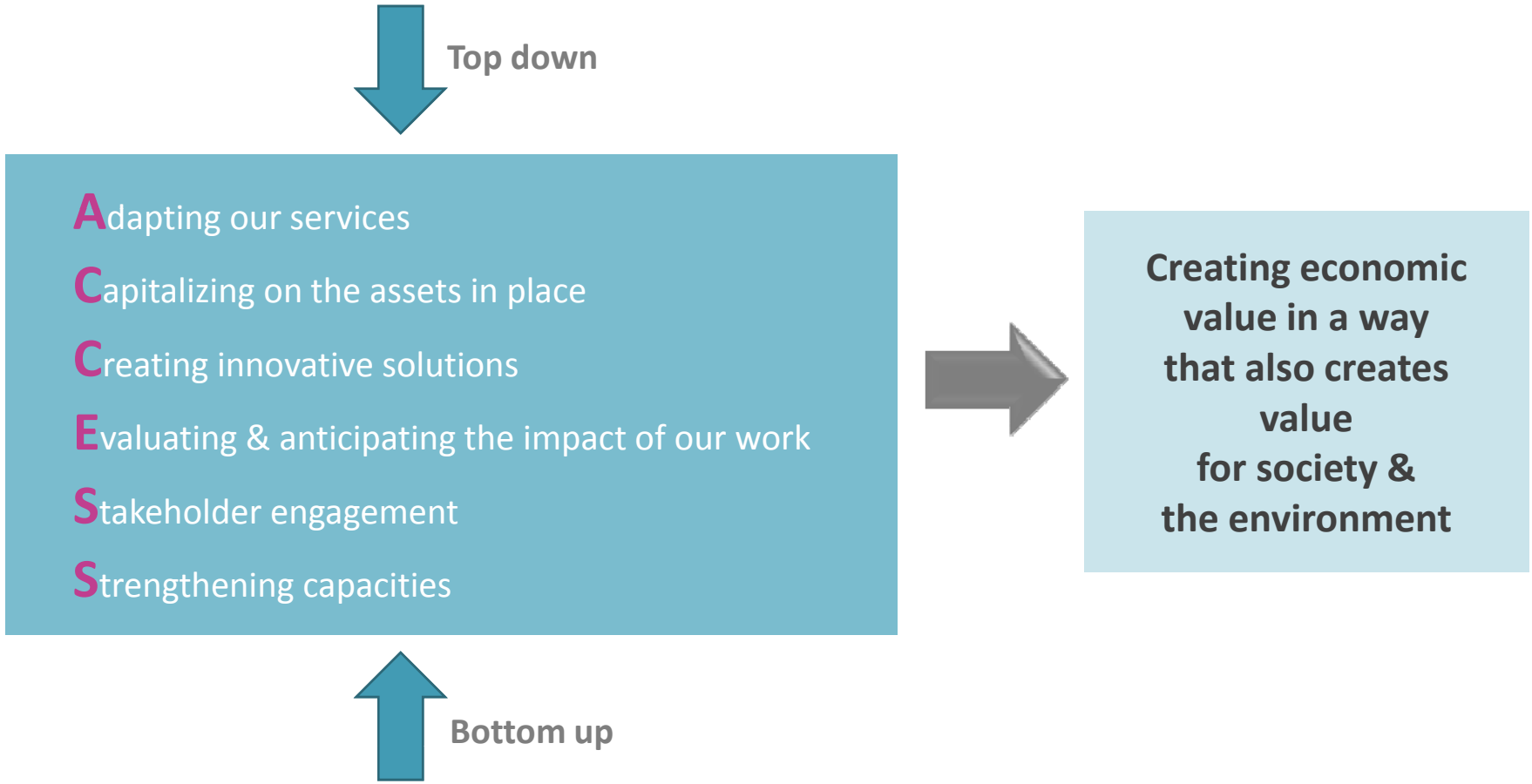
Asian cities should go beyond an economic growth model based on excessive resource consumption towards a circular economy

Asian cities need to minimize

- Inputs of energy
- Polluted outputs
- Water & materials

A new approach to water and sanitation is required

Increasing access to reliable water and sanitation services



Example – Customer services innovations

STAKEHOLDER PARTNERSHIPS

- Collaboration with local NGOs, schools, citizens to raise awareness on water & sanitation
- Ex: Water Friends in India, Voisin Malin in France

MEDIATION

- Door-to-door customer services
- Stakeholder engagement & dialogue
- Ex: Social Welfare Team in India (Nagpur)

FINANCIAL SUPPORT

- Financial help
- Pro-poor connections
- Ex: Saqaiti program in Morocco; measures to reduce and write off debts in Guayaquil, Equador

Turning wastewater into resources

WASTEWATER RECYCLING

- 100 wastewater recycling projects in the world
- 171 million m3 recycled for irrigation, manufacturing and household needs

ENERGY RECOVERY

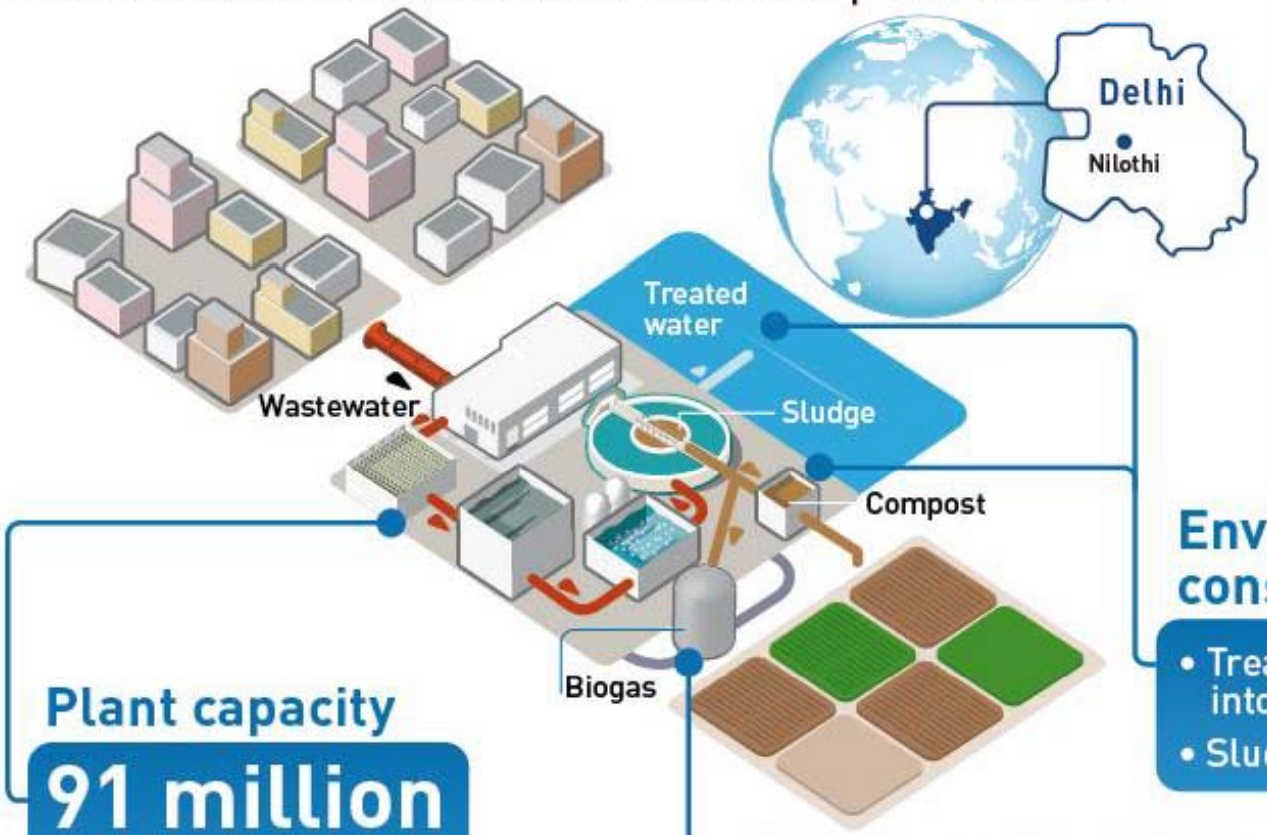
- Biogas in anaerobic digestion
- Cogeneration units
- Sludge energy recovery
- Micro-turbines in drinking water network
- Heat recovery

MATERIAL RECOVERY

- Organic matter into fertilizer
- Sludge into bio-plastics
- Recovery of grit from pipe cleaning

Example – Veolia's Nilothi wastewater treatment plant (India)

The New Delhi municipality has awarded Veolia Water the construction of a wastewater treatment plant in Nilothi.



A 13-year contract

2 years' construction

11 years' operation

Environmental conservation

- Treated water discharged into the nearby Yamuna River
- Sludge converted into compost

Plant capacity

91 million liters of wastewater treated per day

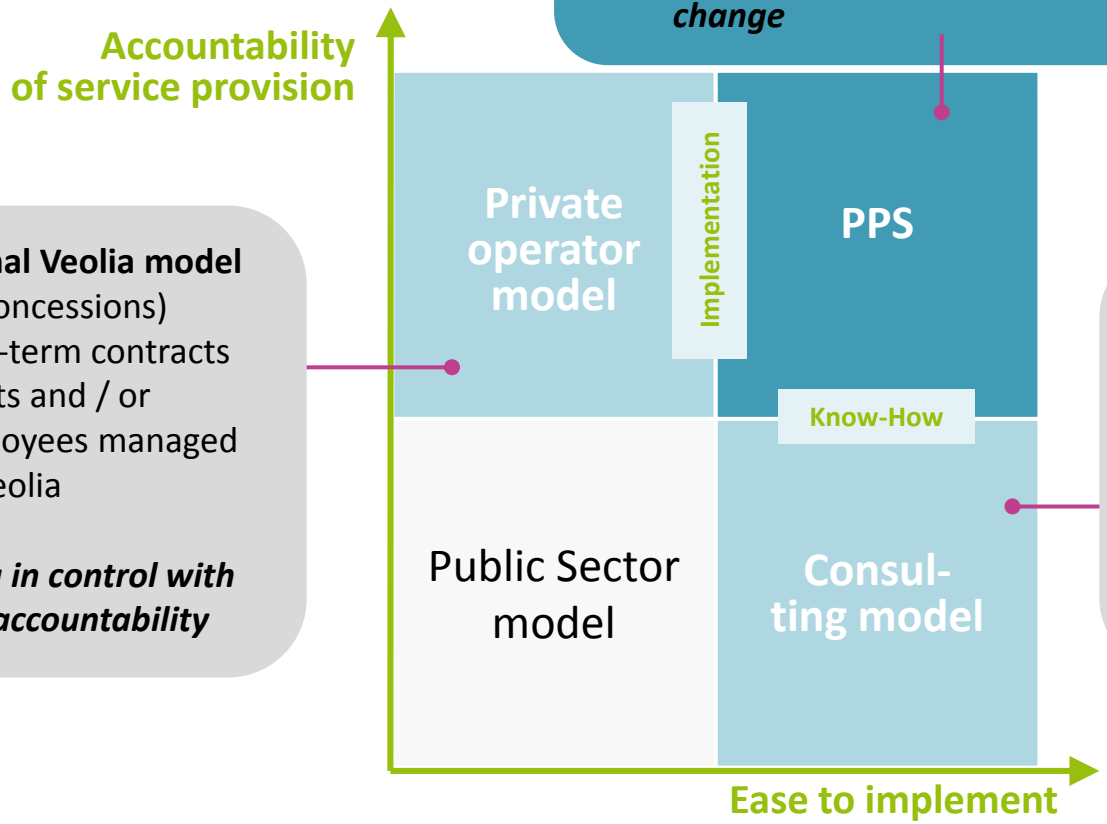
Energy self-sufficient

Production of biogas from the sludge treatment

Implementing new contractual models

Peer Performance Solutions
- Flexible term contracts (short to long term will work)
- No outsourcing of assets / management / employees
- Joint implementation with shared benefits

➢ ***Client in control of assets/staff; Veolia drives performance & change***



Traditional Veolia model
(O&M, concessions)
- Long-term contracts
- Assets and / or employees managed by Veolia

Veolia in control with full accountability

Technical or business consulting projects
- Short-term contracts, usually without implementation support
- No outsourcing of assets / management / employees

Way forward

New contractual models

- Explore innovative tariff systems and financial models
- Promote balanced risk sharing
- Harness new source of revenue (ex: wastewater by-products)

Leadership

- Ensure strong political commitment & leadership
- Break silos
- Focus on capacity building

Cross-sectoral collaborations

- Beyond prejudices
- Promote stakeholder collaboration and multi-stakeholder dialogues

Water management

- Integrated planning & approach for urban services
- Focus on demand management
- Switch from a resource consumption rationale to a use-and-recover approach