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Economic and Social Commission for Asia and the Pacific

Regional Cooperation for Sustainable Water Management in Asia and the Pacific

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Natural Resource Challenges in the Asia-Pacific Region

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- Rapid urbanization: 60 percent of global urban population lives in the region, including water-stressed areas
- Increasing demand for water, energy and food
- Population growth in urban areas outpacing infrastructure improvements and capacities; Hard infrastructure and hydration from concrete further strains water resources
- Environmental pressures: land degradation; loss of biodiversity; increasing levels of pollution and waste; poor infrastructure planning disrupting natural resources
- Vulnerability to natural disasters and effects of climate change
- Lack of integrated policies negatively impact natural resources, resulting in costly treatment and infrastructure needs (e.g. poor waste management)

SDG 6: Clean Water & Sanitation

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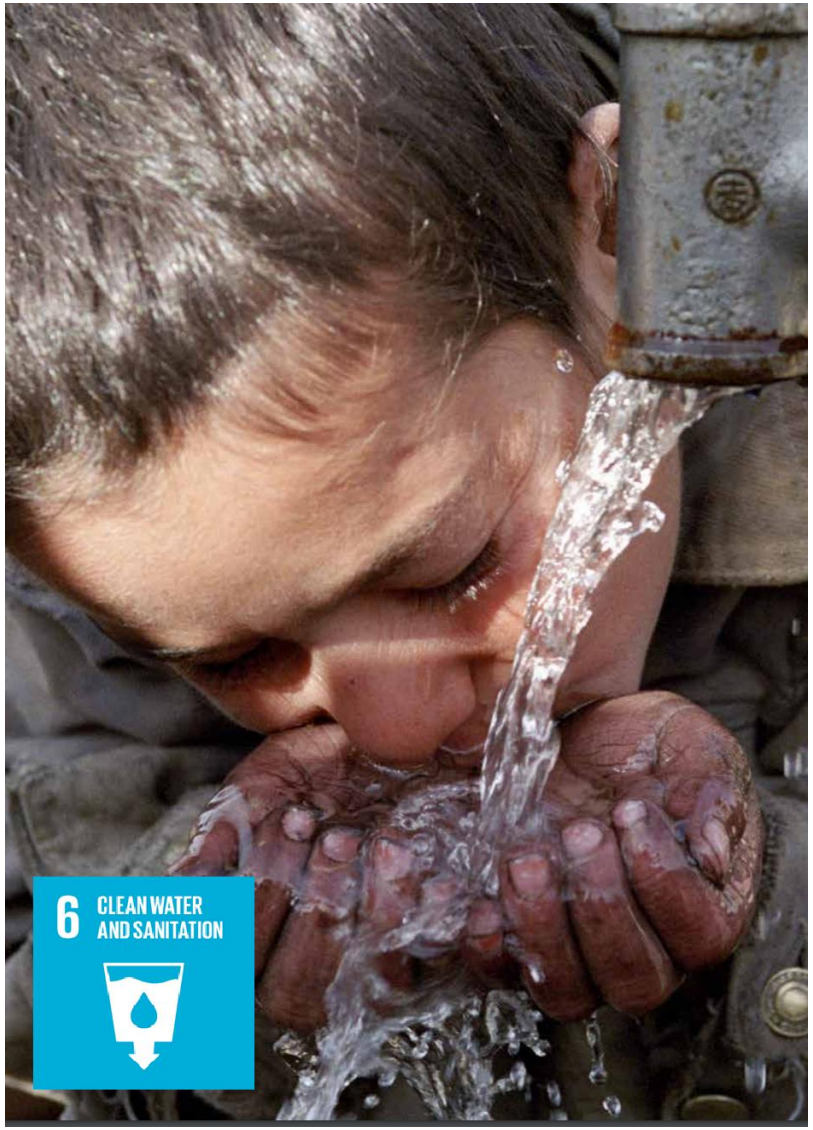
- 1990- 2015, safe drinking access percentage grew from 74 to 94%; Access to sanitation increased from 44 to 65%
- Almost 94 % with access to improved drinking water – 20 % increase in S&SWA since 1990.
- Wastewater treatment as low as 4%.
- Increasing groundwater stress with unsustainable withdrawals of freshwater.
- In 2012, 1.52 billion without improved sanitation; approx. ½ of rural pop.
- Decline of glacier lakes affecting major river basins, home to 1.2 billion.
- Water linked to other resources (water–energy-food nexus)



Progress in the Asia Pacific

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Figure 1: Proportion of population with access to safely managed drinking water in three Asia regions

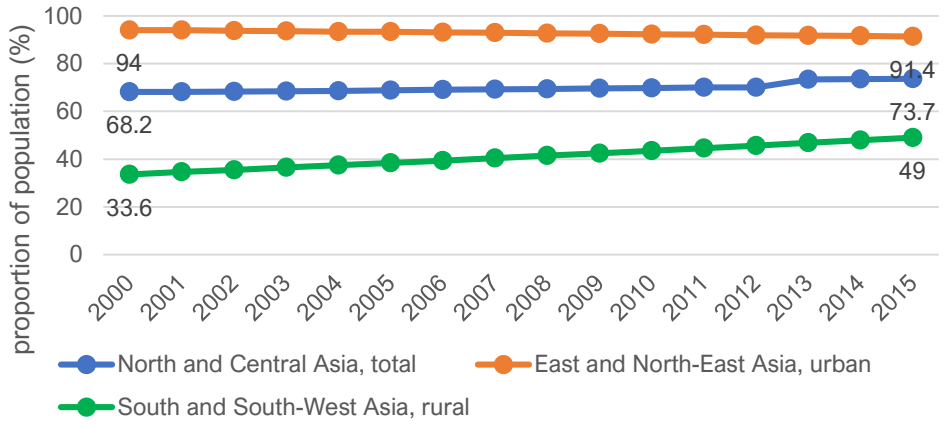


Figure 2: Proportion of population with access to safely managed sanitation in East and North-West Asia

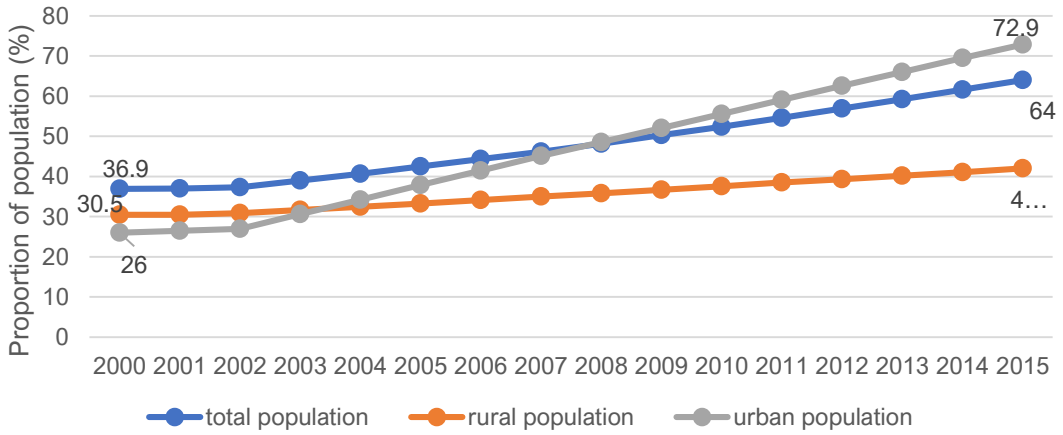
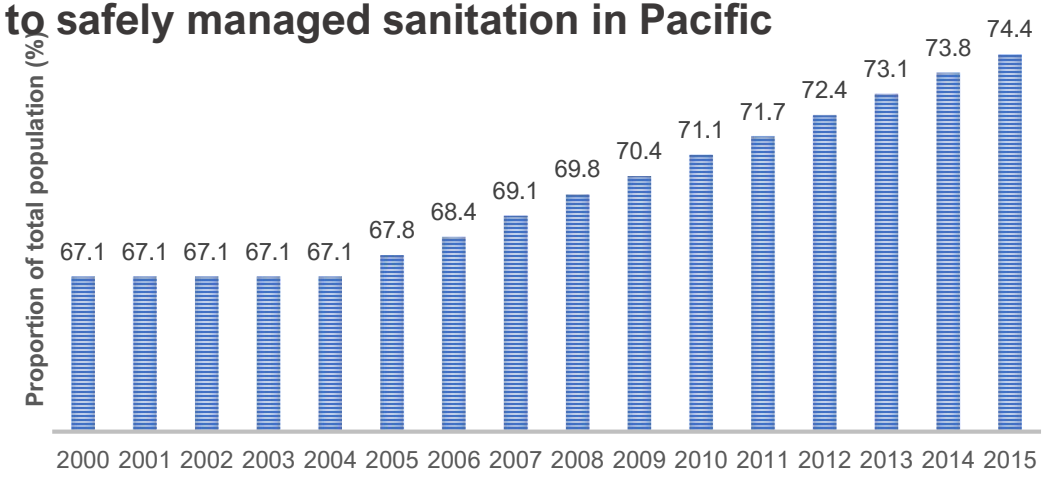
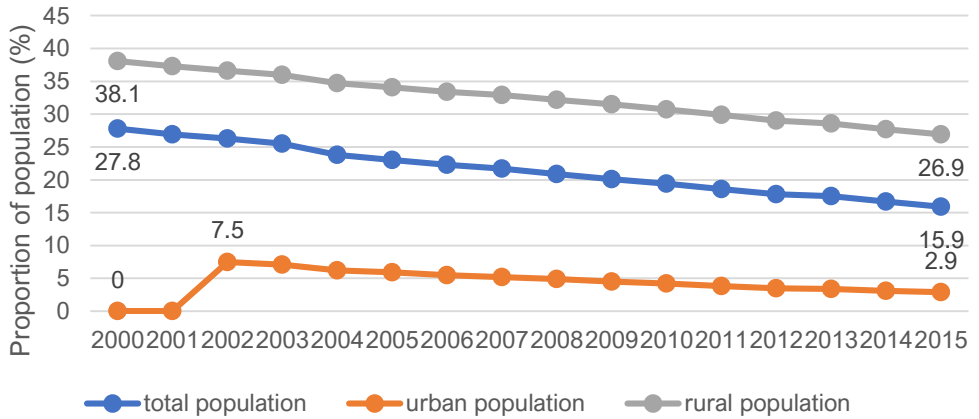


Figure 3: Proportion of total population with access to safely managed sanitation in Pacific



Data Source: ESCAP data portal.

Figure 4: Proportion of population with open defecation practice in ESCAP



Urbanization Challenges in the Asia-Pacific Region

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- The Triple Effect
  - Climate Uncertainty
  - Urban Population Growth
  - Economic Growth
- Weak Urban Planning
  - Lagging in basic needs for housing & sanitation
  - Large unmet infrastructure needs; strained resources and environment impact
- The *"business as usual"*–approach is creating a threshold to achieve water related SDGs.

Urbanization Trend in Asia Pacific (2018-2030)

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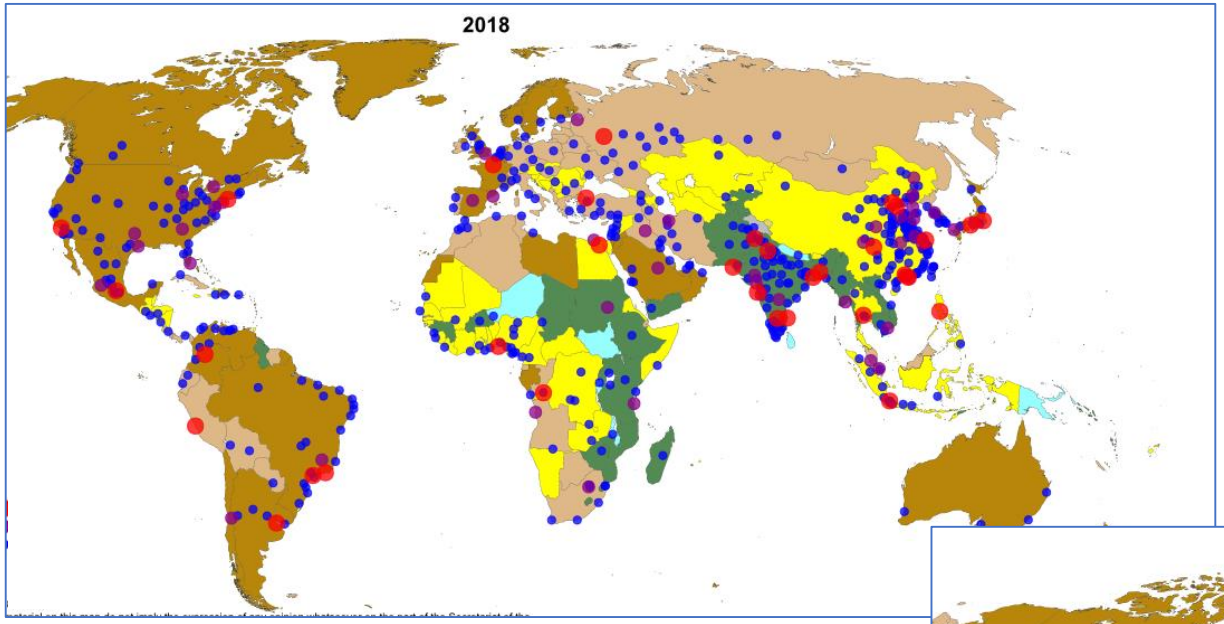

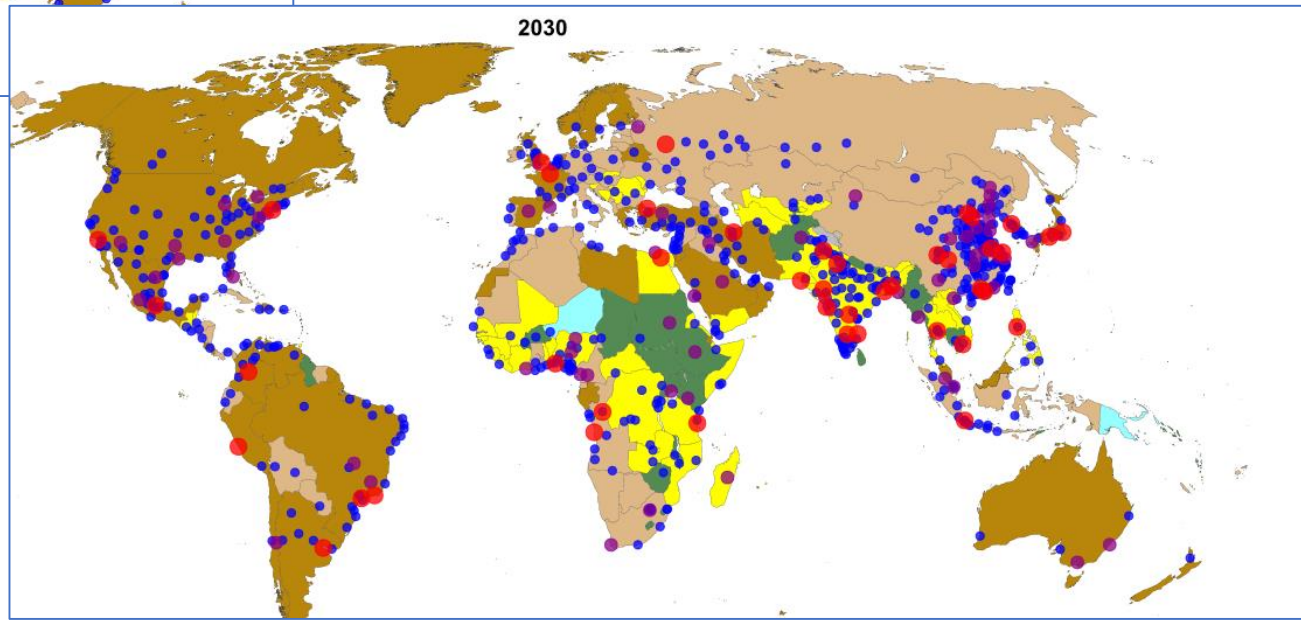

Percentage urban
- 80-100%
- 60-80%
- 40-60%
- 20-40%
- 0-20%
- No data

City population
- 10 million or more
- 5 million to 10 million
- 1 million to 5 million

2018 United Nations, DESA, Population Division

Regional & Global Milestones

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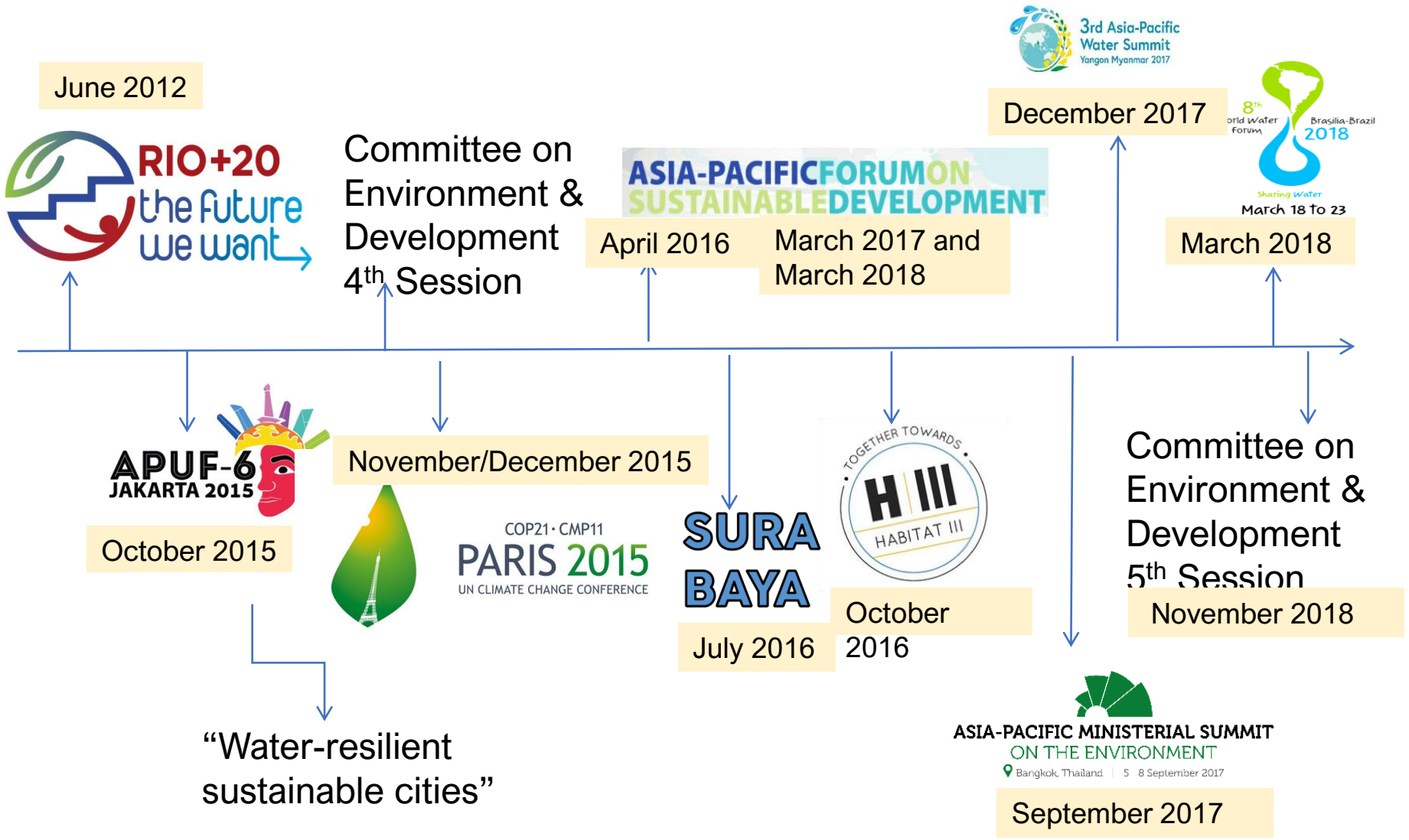

Global Development Agenda

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- *The Future We Want* (Rio+20) Sustainable Consumption and Production
- 2030 Agenda and Sustainable Development Goals (SDGs)
- New Urban Agenda (NUA)
- Paris Climate Agreement
- Sendai Framework for Disaster Risk Reduction
- Ministerial Declaration of the 8th World Water Forum

2030 Agenda and Cities

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Make cities inclusive, safe, resilient and sustainable

Source: Otto, UN Environment, Cities Unit

Sound Water Cycle Management

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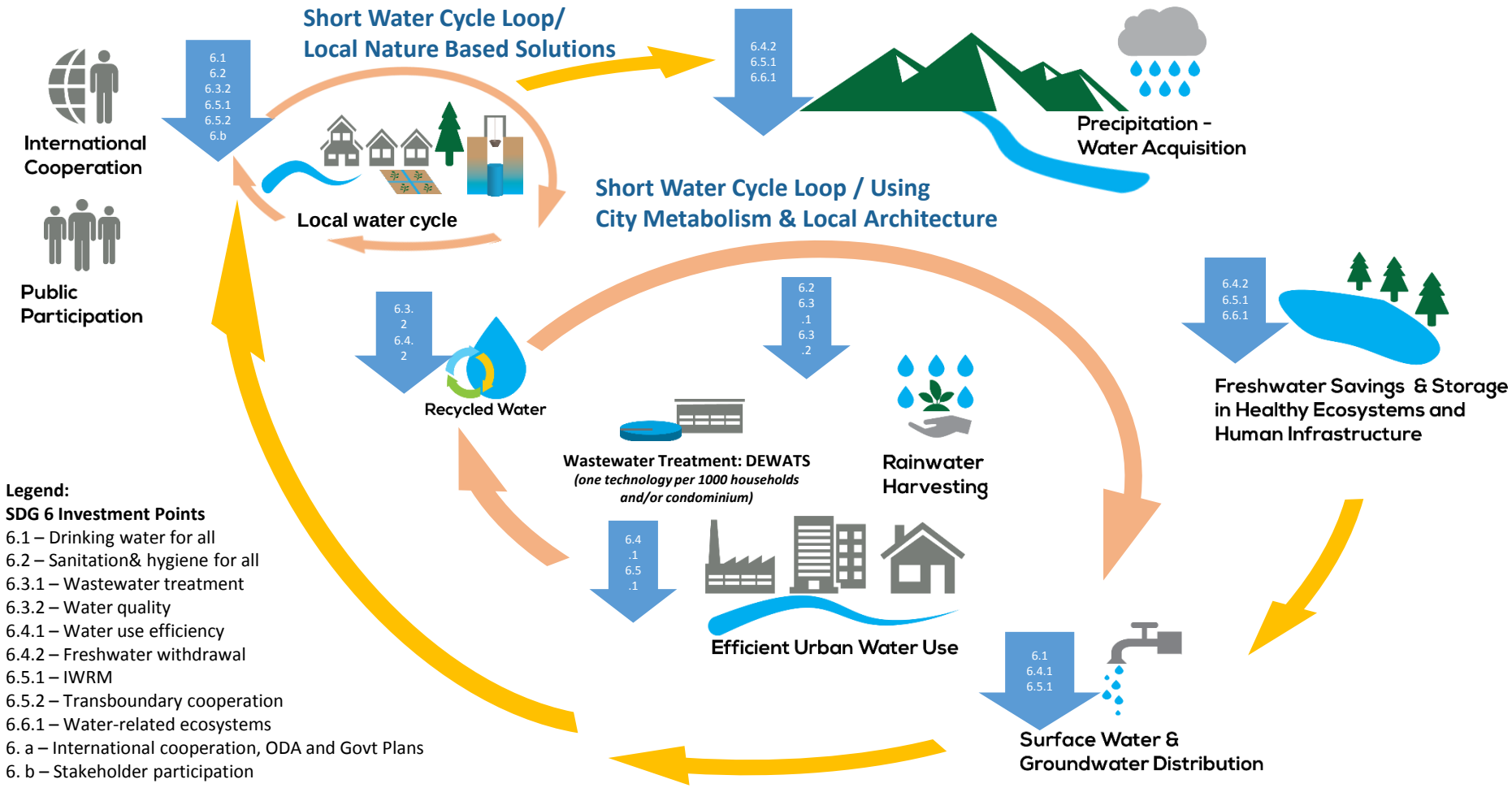
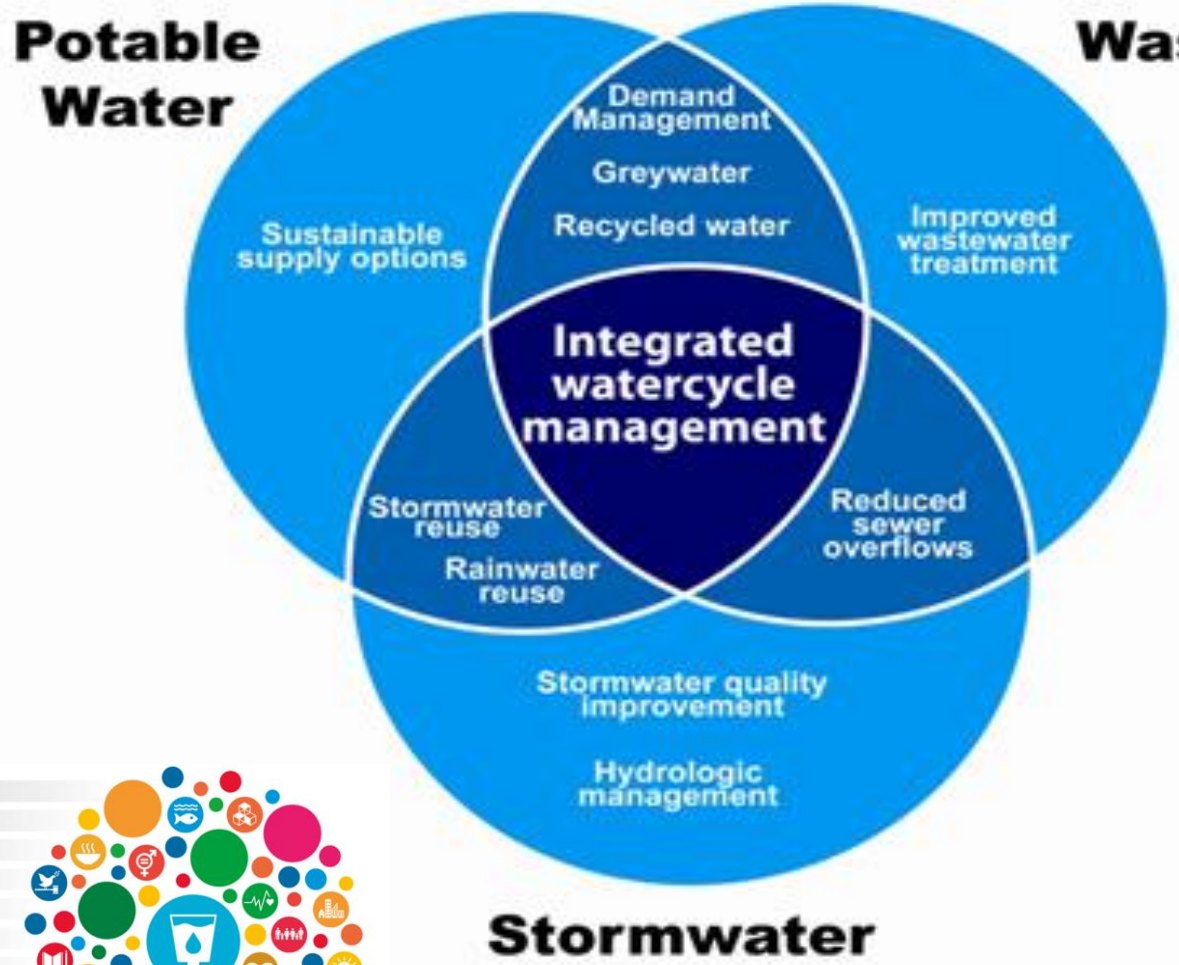


Legend:
SDG 6 Investment Points
6.1 – Drinking water for all
6.2 – Sanitation& hygiene for all
6.3.1 – Wastewater treatment
6.3.2 – Water quality
6.4.1 – Water use efficiency
6.4.2 – Freshwater withdrawal
6.5.1 – IWRM
6.5.2 – Transboundary cooperation
6.6.1 – Water-related ecosystems
6. a – International cooperation, ODA and Govt Plans
6. b – Stakeholder participation

ESCAP Promotes Integrated Water Cycle Management

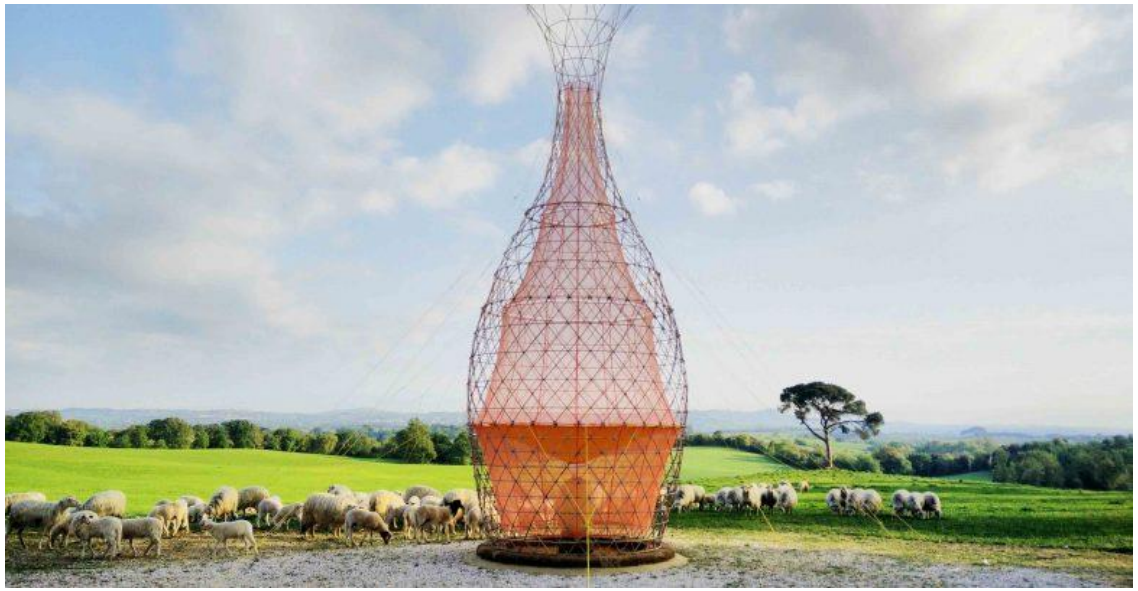


- Since 2016, over 50% of the population if ESCAP member states live in ever-expanding urban areas, which have put pressure on existing infrastructure treatment capabilities.
- Over 70% of wastewaters from cities are going to the ecosystem untreated.

Technological Solutions

Sunqiao Urban Agricultural District, Shanghai.

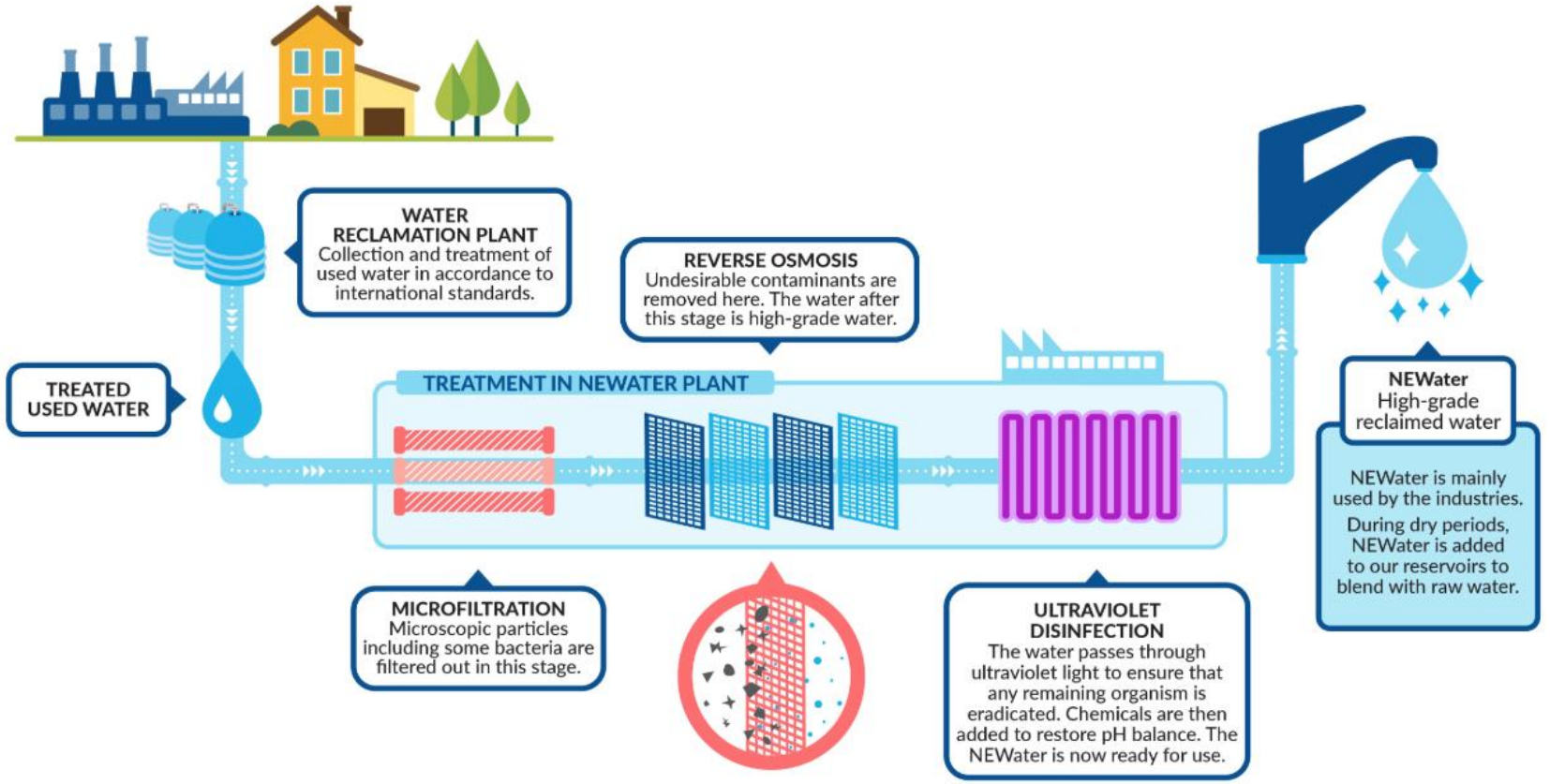
- 90% of the required water are kept within a closed system where water circulates between liquid and gas.
- Weeds and general waste from the farms are composted and thereby creates biomass for other energy purposes.



Warka Water Tower.

- Pulls drinking water out of the thin air.
- Capacity to extract 90 Litres of water a day.

Technological Solutions



Sustainable Integrated Water Cycle Management, Singapore.

Investment Incentives & Risk Mitigation

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Investment Incentives

- *"No-Strings-Attached"*- loans.
- Revenue Guarantees.
- Credit Guarantees.
- Broad Investment Incentives Requirements.

Risk Mitigation

- Diversification through Project portfolios Vs Individual projects.
- De-risk projects during the construction time and first operational years.

The Yangon Declaration: The Way Forward

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MD Adopted at the 3rd Asia Pacific Water Summit, December 2017

'The Yangon Declaration' calls the decision makers of the region to:

Combine the management of water resources and urban, regional and national land use planning.

Undertake efforts to conserve and restore water-related ecosystems and to promote wastewater management, green infrastructure and nature-based solutions for disaster risk reduction

Asia-Pacific Water Forum

The objective of the APWF network is to raise the priority of tackling water security issues highlighted in the development agenda in the Asia-Pacific region to improve people's livelihoods and the environment. APWF experts work collaboratively with a wide variety of water-related organizations in the region to build capacity and enhance cooperation, while boosting investment at the regional level and beyond.

Summary & The Way Forward

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Attract impactful investments and ensure collaborative partnerships; create market opportunities and pursue technologies

Integrated planning to optimize resources; Scale up the use of nature-based solutions in urban and peri-urban areas

Better understanding of water cycles to identify policy interventions and behavioural changes; Assure investment in key areas to assure resilient and efficient development of water systems

Implement decentralised financing schemes to improve water management and empower the leadership of local governments

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