

Integrated
Urban Water
Management
Knowledge
Exchange
Workshop

Brazil

June 21-27,
2018

OVERVIEW OF INDONESIA'S URBAN WATER MANAGEMENT

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COUNTRY CONTEXT



- ▶ **One of the biggest archipelago.** More than 17,000 islands, over 6,000 inhabited. 8 hours flight from most western part to the most eastern part.
- ▶ **The fourth most populous country.** More than 250 million people, more 50% live in urban areas mainly located in Java, Bali and coastal areas in Sumatera, Sulawesi and Kalimantan.
- ▶ **Java island is one of the most densely populated island in the world.** About 65% of Indonesia population live in Java.
- ▶ **Extreme variation** in term of geography, topography, and climate. Sea and coastal systems, peat swamps and montane forests, rich natural resources and biodiversity.
- ▶ **Decentralized country.** 34 provinces, 416 regencies, 98 municipalities. Shifting of responsibilities in basic services provision and management of public spending.
- ▶ **Dense settlement patterns,** rapid urbanization and regional disparities.

COUNTRY CONTEXT

CHALLENGES





▶ Rapid urbanization

- ▶ Estimated 68% will live in the cities by 2025
- ▶ About 38,000 Ha urban slums
- ▶ Urban infrastructure development lags behind urban population growth

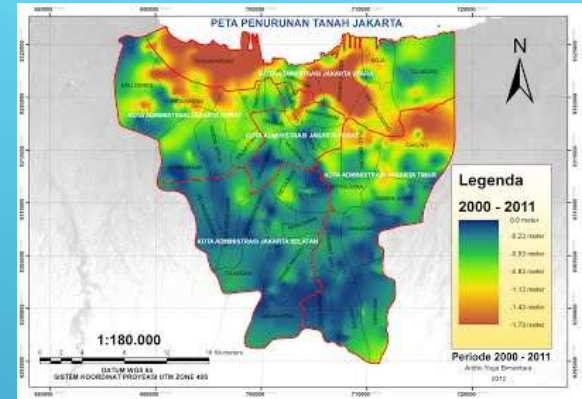
▶ Low WSS service coverage

- ▶ Only a third urban population has access to piped water services
- ▶ Only 13 cities have sewerage systems (cover less than 4% of urban population)
- ▶ Only about 5% urban waste water and septage is collected and treated properly. It contributes to increasing cost of water supply treatment

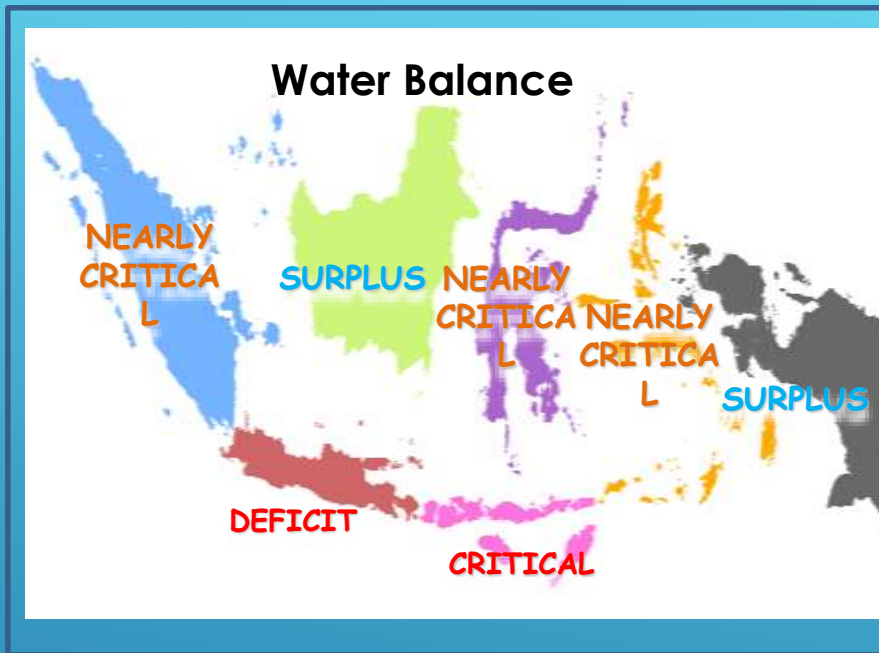


CHALLENGES

- ▶ **Groundwater extraction and land subsidence.** Excessive groundwater extraction is driving land subsidence and saline intrusion especially in cities located in coastal areas.
- ▶ **Degradation of water quality and limited water resources.** Land use changes in water catchment areas have led to water quality deterioration and aquifers depletion.



CHALLENGES



ICCSR BAPPENAS, 2010

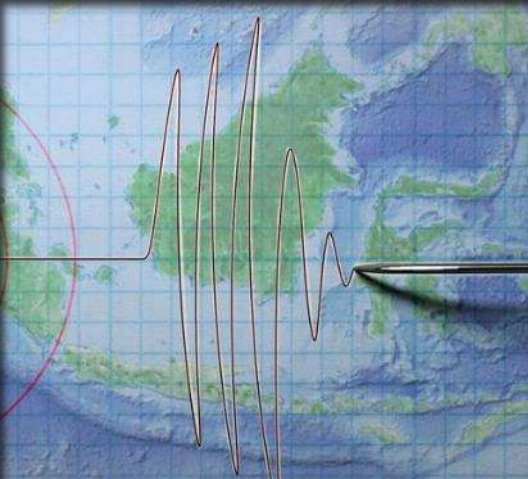
Spatial distribution of average annual rainfall



Water Resources Availability

- Uneven distribution creates shortage in some areas, while surplus in others
- Huge variation between dry and rainy season
- A rich country in water resources but has spatial and seasonal variability
- Only 16% (691 billion m³/year) of total surface water available to be accessed directly – far from meeting the demand

CHALLENGES



- ▶ **Climate and disaster risks.** Urban resilience to climate and disaster risks is not well integrated into infrastructure planning and design, as well as in daily operations and maintenance activities
- ▶ **Limited capacity at local level.**
 - ▶ Increased responsibility and accountability of service provision at the local government level.
 - ▶ Increase number of small PDAMs – limited economies of scale and limit the potential of these PDAMs to be technically and financially viable
 - ▶ Integration challenges

CHALLENGES

OPPORTUNITIES

▶ Combining 3 Pillars

- ▶ **Nature:** Environmental recovery through reforestation, rainwater harvesting for secondary use and groundwater recharge , etc.
- ▶ **Culture:** Behavioral changes in water use and sanitation, local wisdom on water management
- ▶ **Structure:** water reservoir, urban sanitation infrastructure, urban water supply (infrastructure), flood control - Development of National Urban Development Platform is on-going



OPPORTUNITIES

▶ **Increase efficiency.**

- ▶ More pressure and interest at sub-national governments and utilities to increase operation efficiency.
- ▶ NRW reduction, energy efficiency, demand management through tariff setting can help in improving efficiency and postponing the need for big investment to build new water sources

- ▶ **High return on investment.** If done properly, every IDR investment has potential to generate very positive economic social returns – can contribute to city competitiveness and economic growth

OPPORTUNITIES

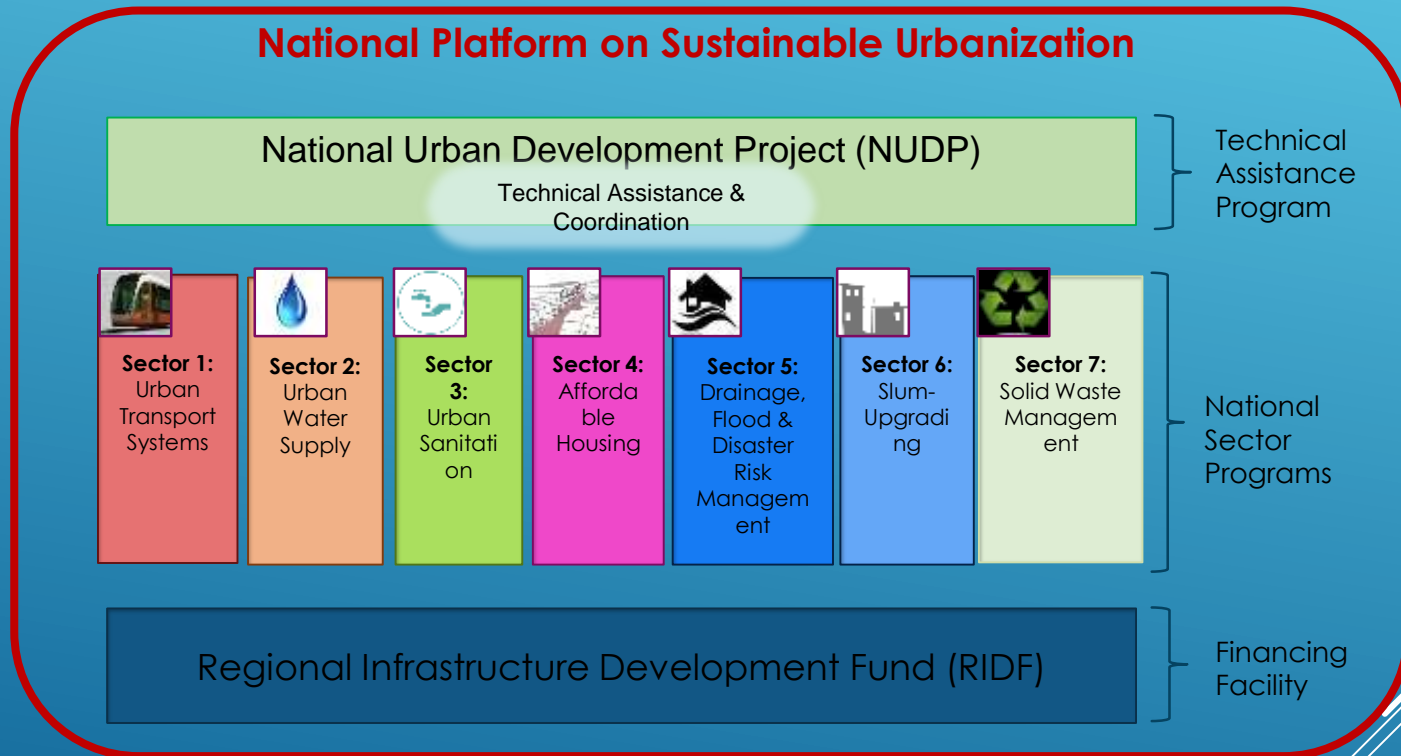


- ▶ **Subnational governments as champions**
 - ▶ Cities can be champions of the urban water agenda.
 - ▶ Cities can lead and play active role to ensure that investments reflect local priorities and to identify customized solutions
- ▶ **Upcoming National Mid Term Development Plan**
 - ▶ Preparation of the new Mid Term Development Plan (RPJMN) 2020-2024 provides opportunity to include IUWM concept.
 - ▶ Preparation of the new RPJMN will be followed by development of Mid-Term Development Plan at local government levels



OPPORTUNITIES

A COMPREHENSIVE PLATFORM TO SUPPORT SUSTAINABLE URBANIZATION



TERIMA KASIH

OBRIGARDO

THANK YOU