



WATER SUPPLY OF JAKARTA

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A dynamic background image of water splashing, with blue and white tones, creating a sense of movement and freshness. The water is captured in mid-air, with droplets and ripples visible.

Outline

1. Introduction
2. Raw Water Resources
3. Regulation
4. Water Availability Condition
5. SDGs Target
6. Conclusion

Raw Water Resources



- Raw water supply for drinking water in Jakarta mostly come from surface water.
- 80 % of it comes from the **Citarum River**, located in the East of Jakarta.
- 15 % of raw water come from **Cisadane River**, West Java
- Another 5 % come from smaller rivers flowing from West Java Province to the Jakarta area such as Ciliwung, Krukut and Pesanggarahan

Raw Water Resources

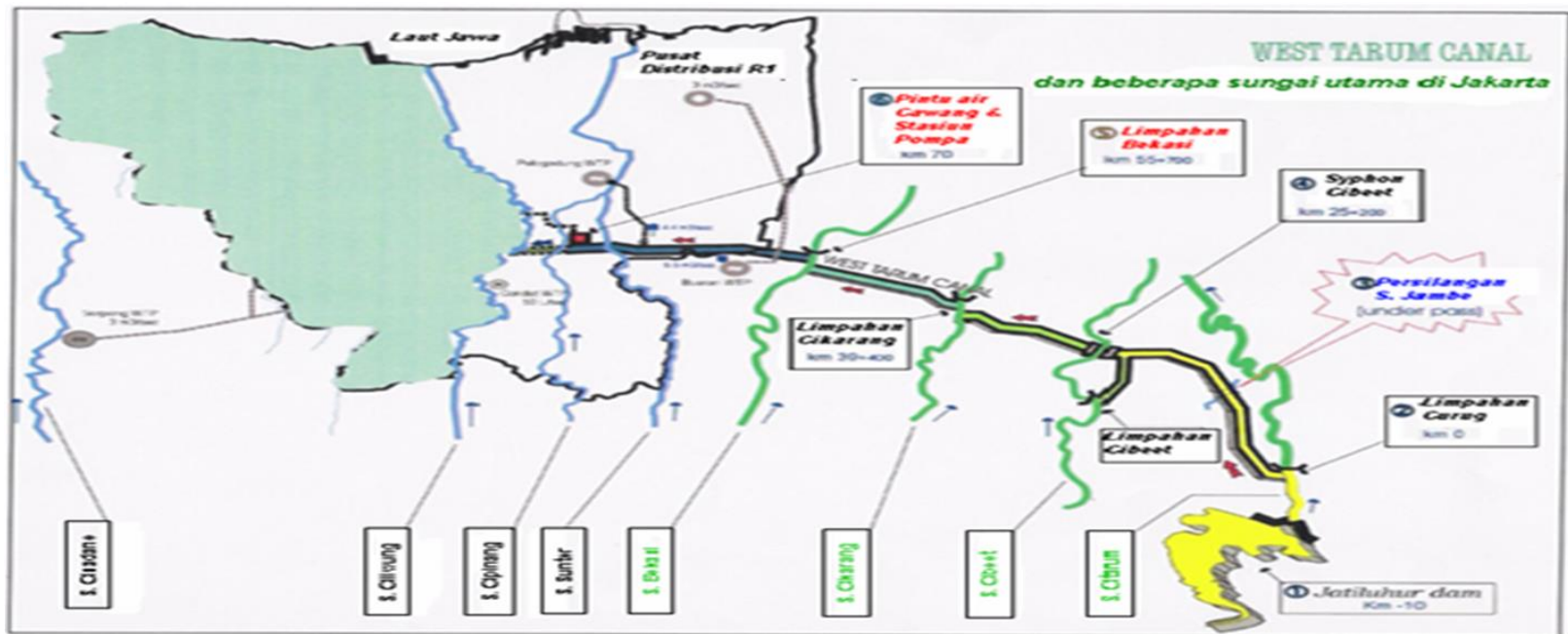


(Jatiluhur Dam)

- The water from Citarum river is used and managed through several dams, ie. Saguling Dam, Cirata Dam and Jatiluhur Dam.
- With total catchment area for Jatiluhur Dam is 4500
- Those dams are also used for electric power generation, river flow management, irrigation, tourism and industrial purposes.

West Tarum Canal and Main Rivers in Jakarta

- The average water capacity of the Citarum River distributed in the Jakarta, Bekasi and Karawang that conveys through West Tarum Canal.
- The multifunction West Tarum Canal is 70 km long and flows through several industrial and settlement areas



WATER



Poor management of the water resources has contributed to the suffering on poor society

Protecting
Public Health

Increasing
Economic
Development

**NATIONAL
ISSUES**

Raw Water

- The growth rate of population and urbanization have highly increased
- Jakarta's development increase the needs of clean water to fulfil Jakarta's public's needs (domestic, industry and agriculture)
- Water supply was initiated with deep well installations in some areas of Jakarta, but now also combined from surface water
- Water quality degradation because of contamination
- Little rain in dry season
- Location of raw water comes from different province

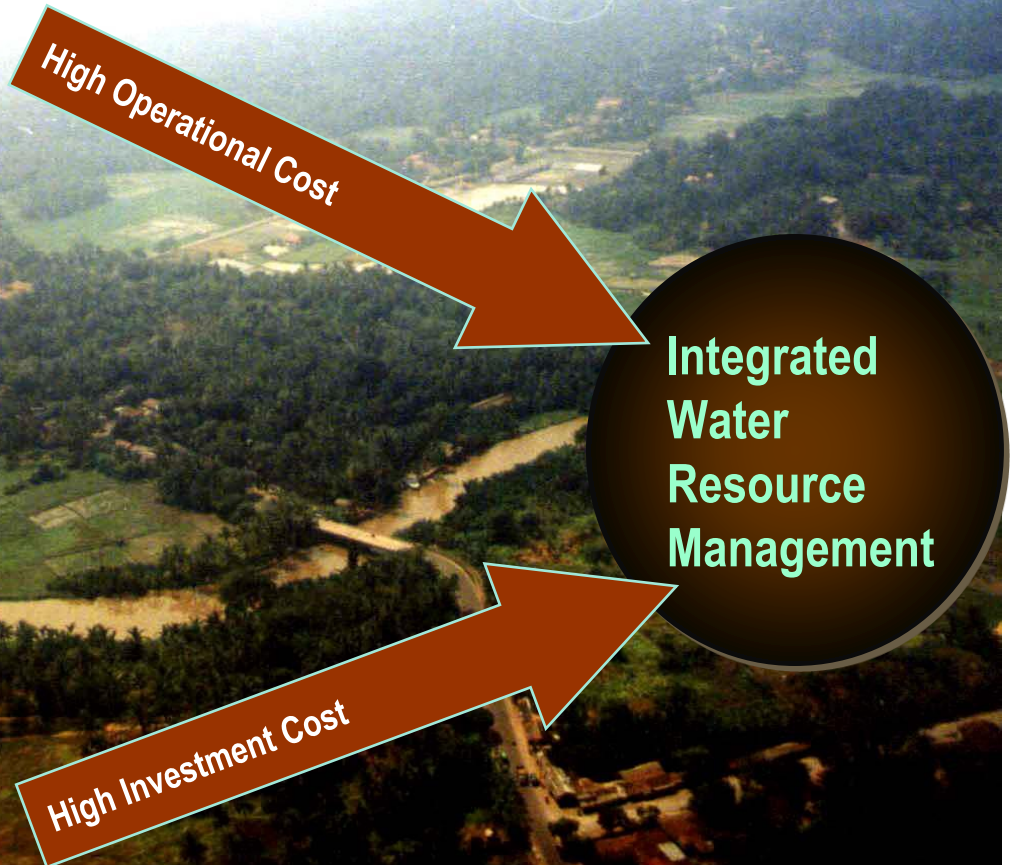
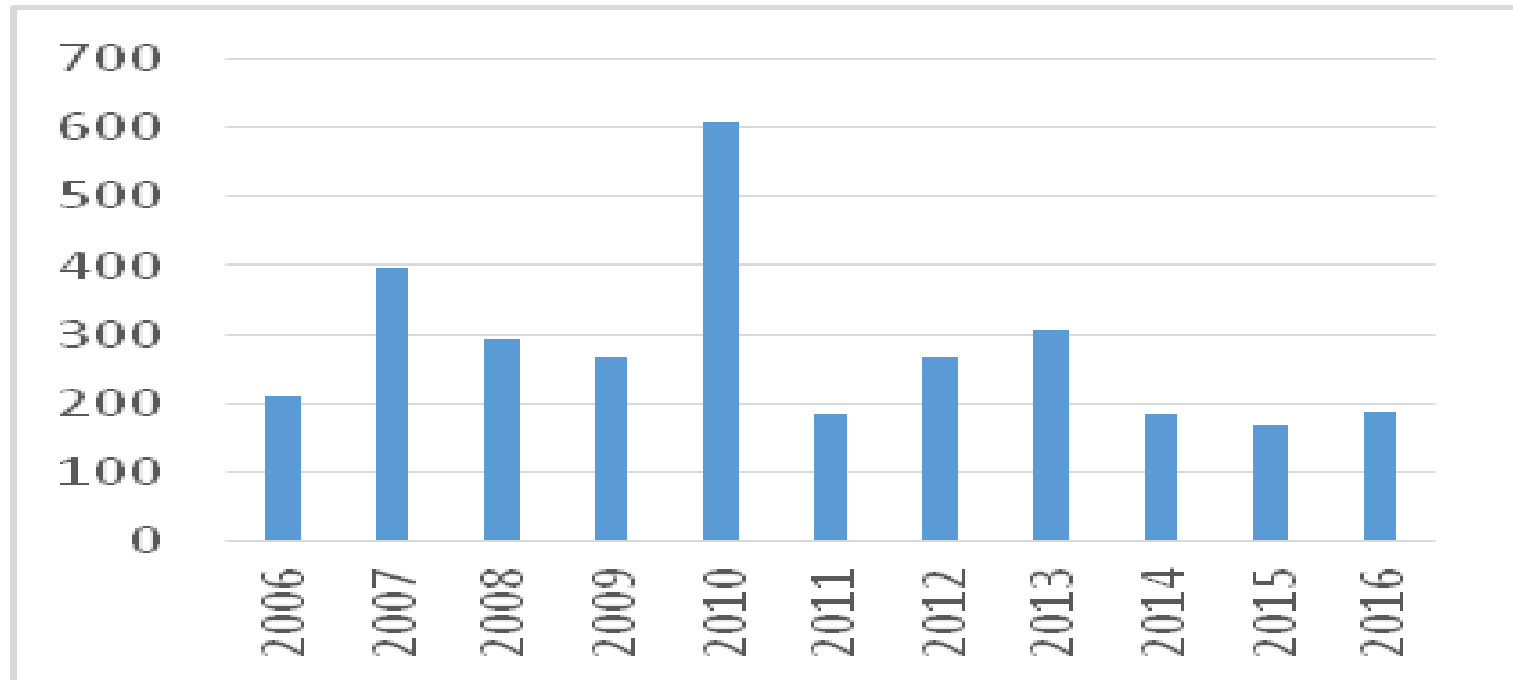




Table 1. The utilization of Jatiluhur Dam

Utilities	Capacity (million m³)	Percentage (%)
Water Supply	450	6
Industry	151	2
Others	25	0,3
Irrigation	6.500	86,7
Not yet use	374	5

Turbidity of Buaran River





Water Treatment Plants are located in:

- Buaran Water Treatment Plan I and II up to 5.3 m³/second
- Pulogadung Water Treatment Plant up to 4 m³/second and
- Pejompongan Water Treatment Plant I and II up to 5,7 m³/second



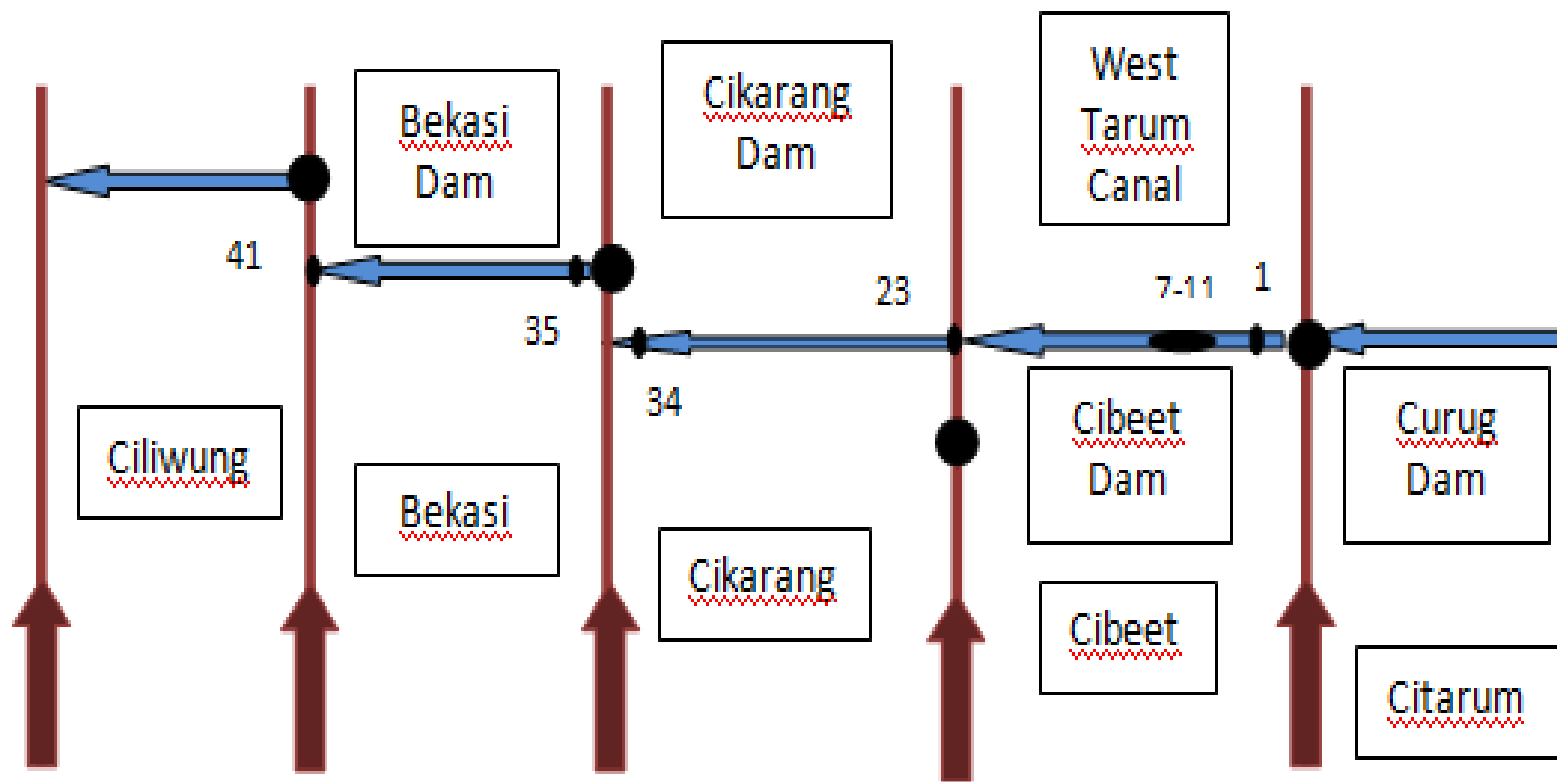




Table 2. Quality of Buaran River (2006-2016)

Year	Amonia (mg/l)	Iron (mg/l)	Manganese (mg/l)
2006	0.48	0.13	0.13
2007	0.46	0.12	0.11
2008	0.47	0.18	0.09
2009	0.45	0.18	0.12
2010	0.50	0.15	0.13
2011	0.57	0.15	0.08
2012	0.69	0.15	0.13
2013	0.51	0.13	0.11
2014	0.61	0.14	0.13
2015	0.58	0.12	0.15
2016	0.37	0.11	0.04

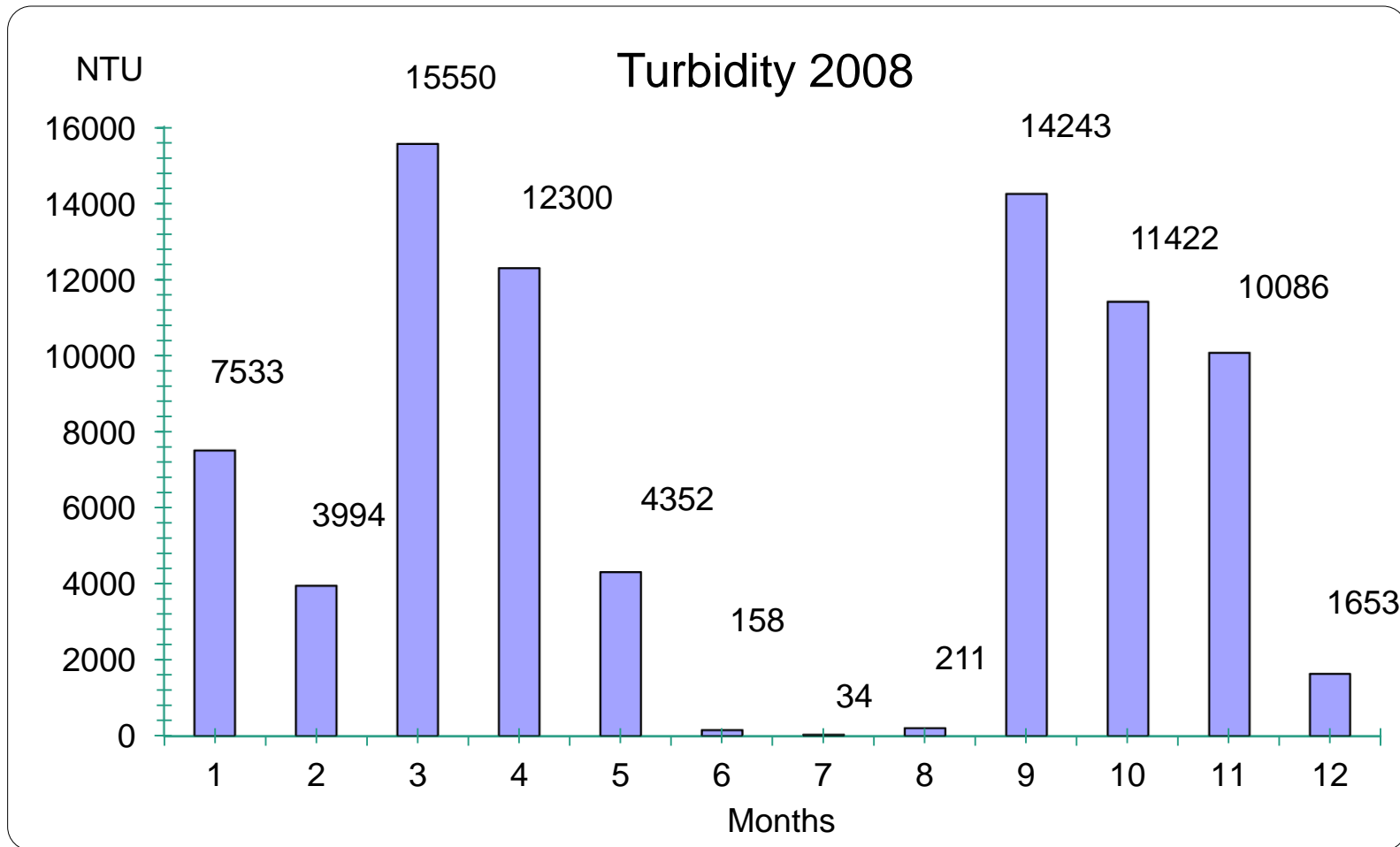
Source: PT. Aetra, 2016

A dynamic background image of water splashing, with blue and white tones, creating a sense of movement and freshness. The water is captured in mid-air, with many small droplets and bubbles visible.

Regulation

- The new Government Regulation as well as Local Government Regulation to protect and maintain water resource management has already been set up with the purpose of water supply sustainability .
- Government Indonesia Regulation Number 82/2001 (Reference [14]), concerning with government policy on using surface water as raw water for water supply including protecting as well as maintaining.
- Government Indonesia Regulation Number 122/2015, concerning with Water Supply System, to serve water supply system to the citizen as their right.
- Ministry of Health Regulation Number 497/2010.

Extreme Turbidity Condition in 2008



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Coordination

- Water resource is managing based on sustainability, balancing, integrated, equity, transparency and accountable.
- The aim is on water resource utilization sustainable and for citizen prosperous
- There are 18 Ministry and sector involved in water resources management

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Utilization

- Utilization water by agriculture and irrigation sector(the biggest), industry, water supply, others.
- Surface water the most available raw water resources among others (ground water, rainfall)
- Increasing of pollution due to the high turbidity, solid waste and waste water accumulation, increasing of sediment, and others.
- Example of DKI Jakarta, almost 90% raw water for water supply from Citarum/Kali Malang River

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Strategy WRM

- WR: surface water, rainfall, recycling water, desalination
- Protecting more in raw water especially surface water
- Minimization on shallow ground water and deep ground water
- Increasing community participation
- Non structure approach in WR conservation

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Obstacles WRM

- System Information and data WRM
- Low Community awareness in water saving
- Community attitudes in discharge water waste (solid and liquid) in water body
- Low coordination among sector
- Weak commitment in water infrastructure

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Problems

- Exchange land use function in top, middle and down area
- Decreasing quality and quantity raw water due to the pollution
- Water demand versus water supply
- Excessive of extraction on ground water
- Housing and waste water along the river

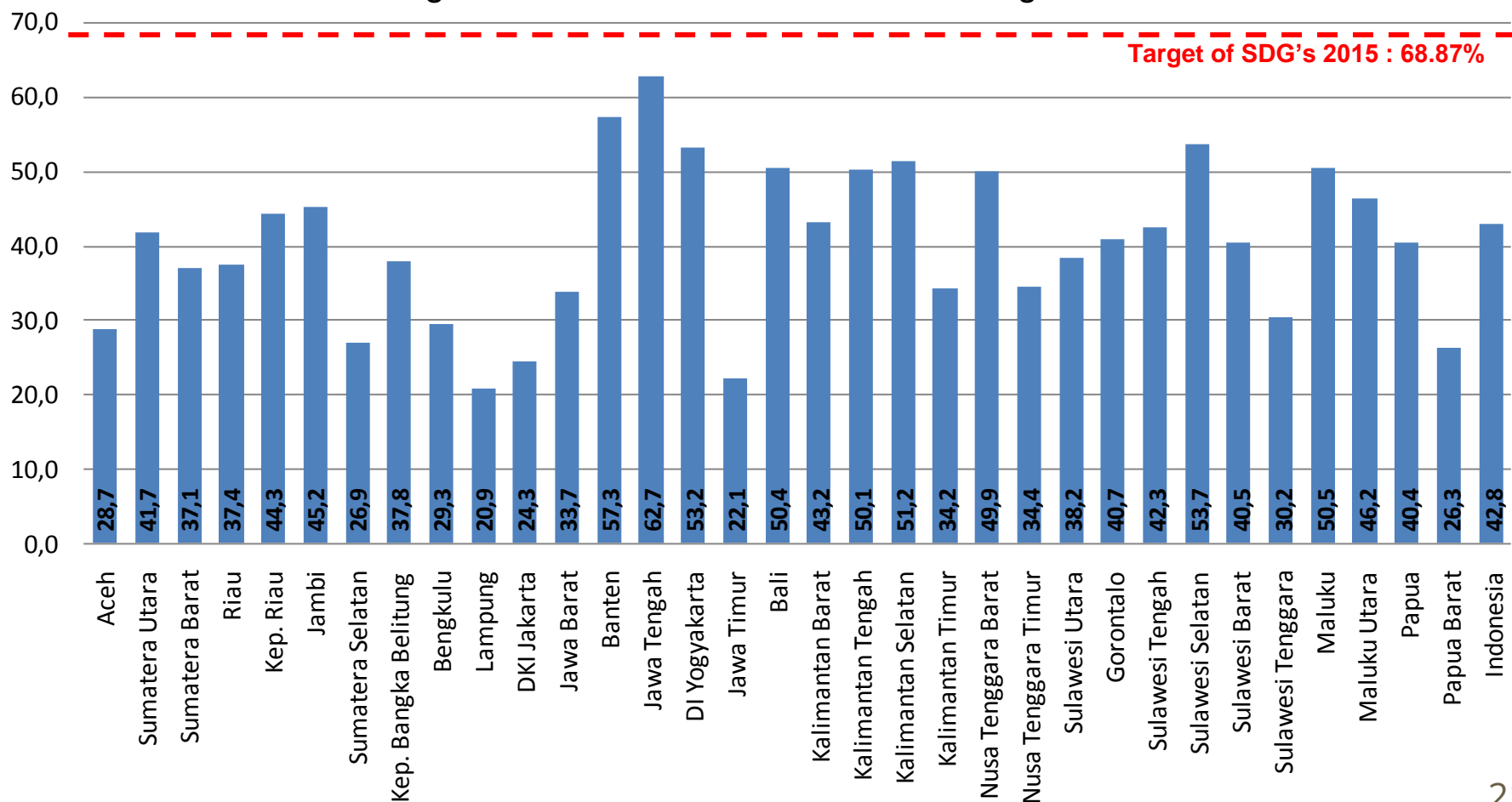
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Challenges in the future

- Population increases need more space, more infrastructure, water supply and sanitation, food, electricity
- Enhancement human resources, technology adaptation, organization and coordination
- Decentralization caused management inefficient
- Protecting and conservation on water resources

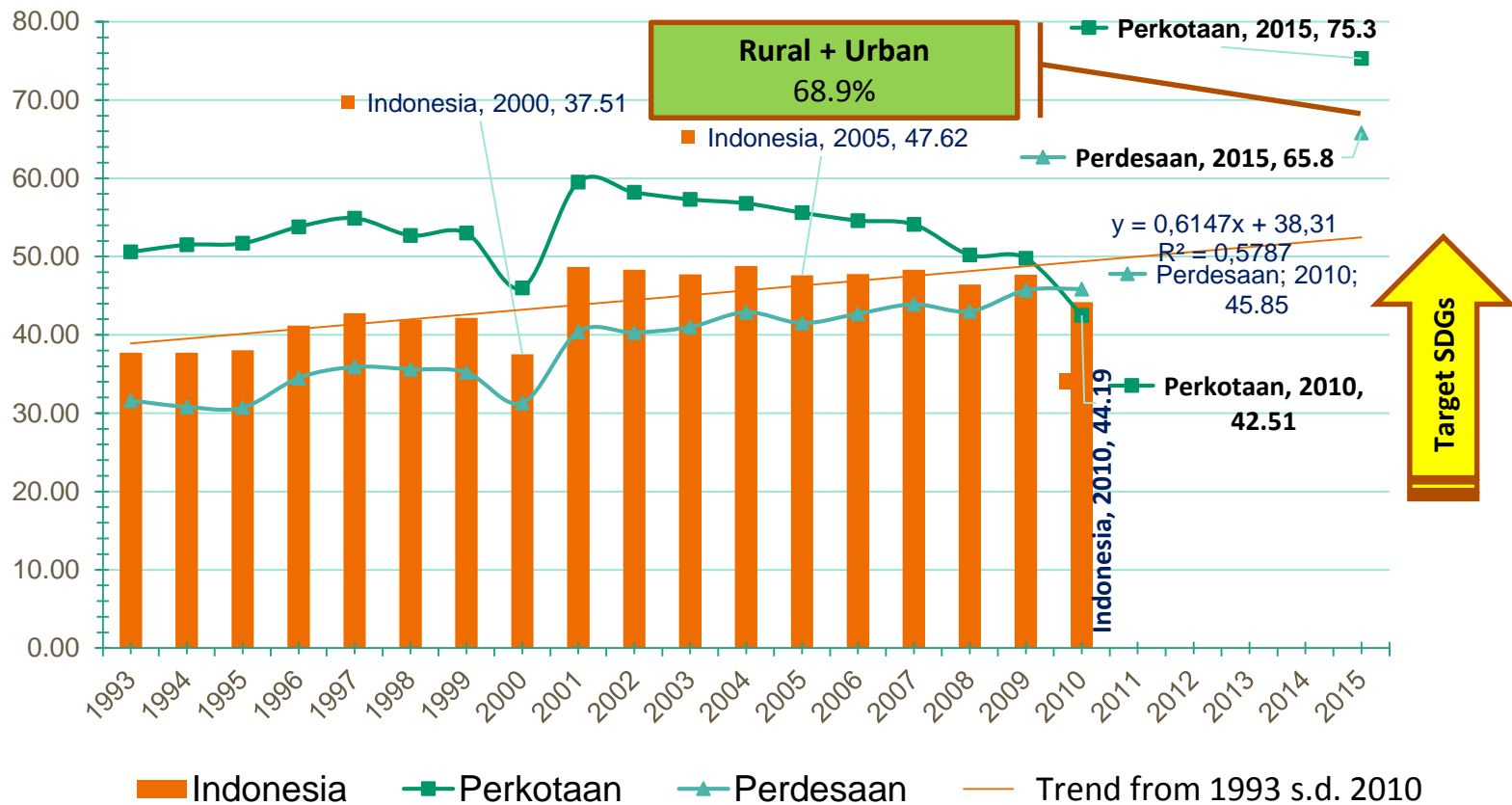
SDGs Target Achievement Per Province Status until 2011

Percentage of Households with decent drinking water access



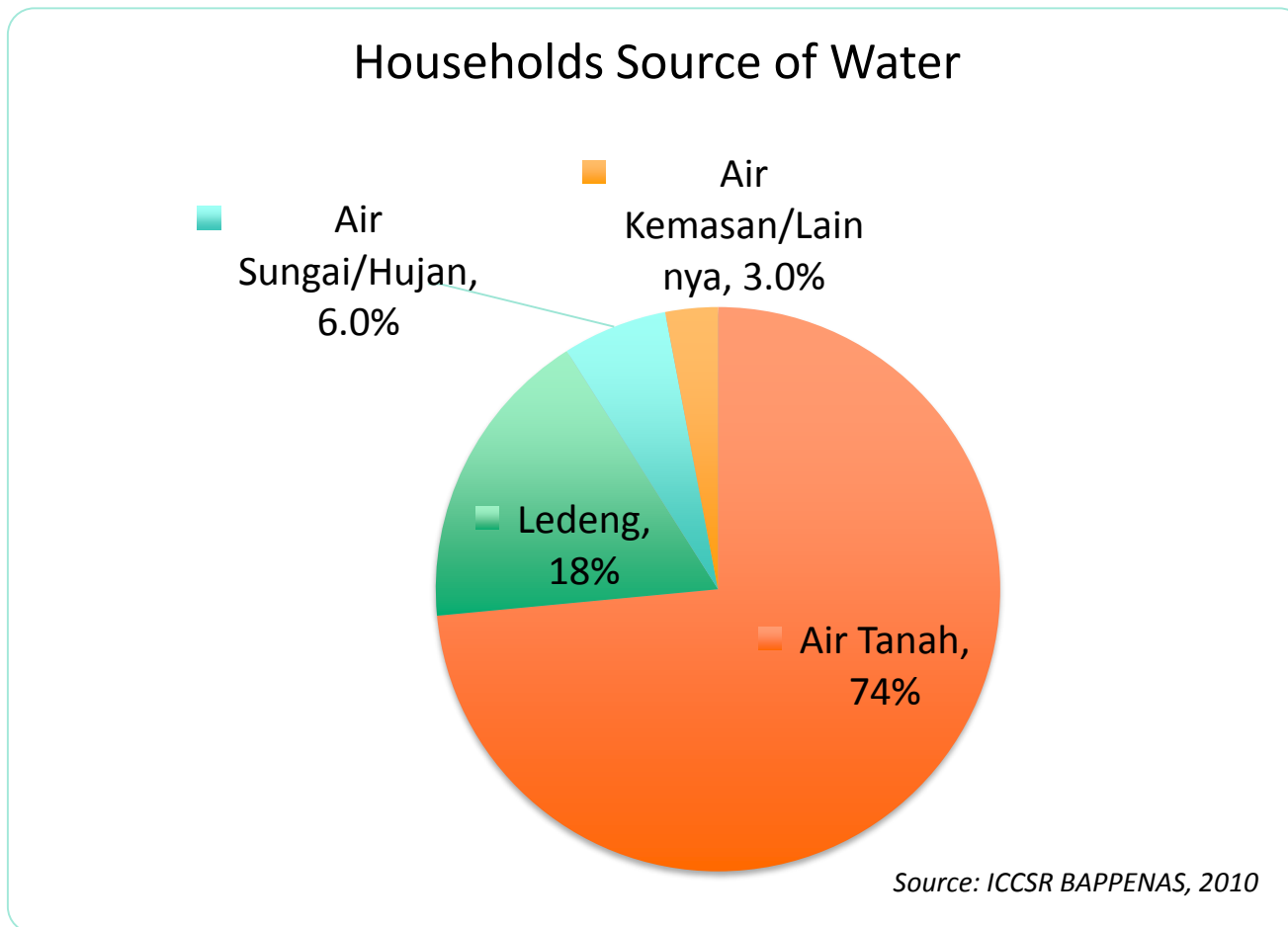
Water Provision : Need Acceleration for SDGs

Proportion of households with decent drinking water sources access



The government should immediately accelerate the development of raw water supply infrastructure to MDG's target

Water Provision : Need Acceleration for SDGs



74% of households Source of Water is from groundwater



Thank You

