Better Integration of Ecological Security in Basin Level Approaches : Citarum River Basin

Bali, Indonesia, 22nd May2024

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10th World Water Forum:
Political Process, at the segment of Basin Authorities Process

Global Water Quality Problems

Nowadays, **the quality of water** is becoming **a big problem** that we need to deal with. Many lakes, rivers, and oceans are getting dirtier, and it's not just bad for animals and plants, but also for people. The global water quality crisis, exacerbated by pollution from various sources including **industrial activities**, **agricultural**, and **untreated sewage/channel**, presents a **massive threat** to **ecosystems, human health, and sustainable development worldwide**.

Illegal Fishing Practices

Pollution

Climate Change

Deforestation and Soil Erosion

Lack of Regulation and Enforcement

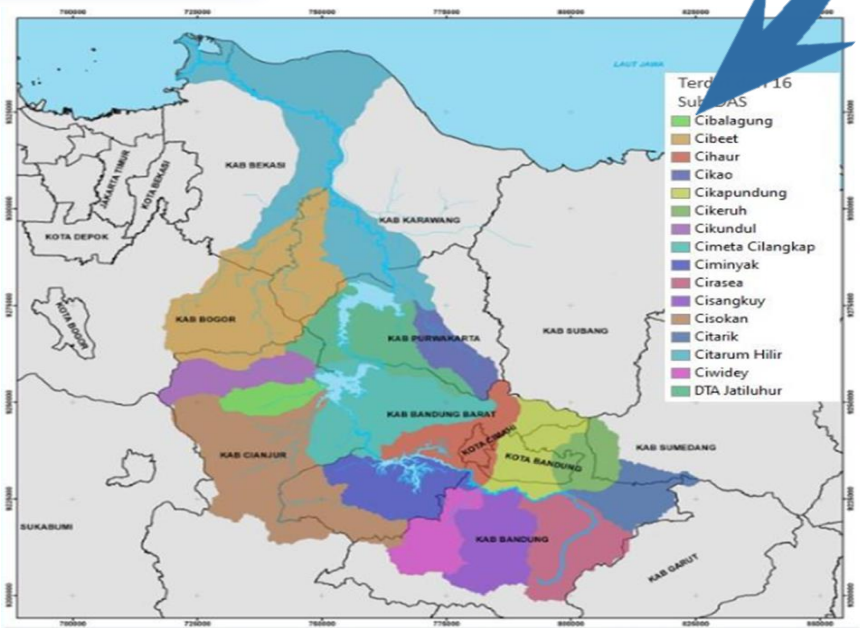
Sewage and Sanitation Maintenance

Insufficient Wastewater Treatment Infrastructure

WHERE IS CITARUM RIVER BASIN?

Profile Citarum River Basin

- 11.323 km^2 (32% of West Java total area)
- ±18 million of population
- Length 297 km
- More than 4.500 Industries



CITARUM RIVER BASIN IN WEST JAVA PROVINCE

Water Management

Water Supply 47 m^3/sec
Drinking Water Municipals and Industries of 1,100 million m3/year for Capital City Jakarta & West Java

Food Security
Through irrigation water for an area of 420,000 Ha.

Energy Security 3.350 MW
Through the provision of ± 5 billion kWh/year raw water for hydropower in Dams of Saguling, Cirata and Ir. H. Juanda

Flood Control 26,500 Ha
In North of West Java areas
Through the water level control in 3 Dams Reservoirs (Saguling, Cirata & Ir. H. Djuanda)

COMPLEX PROBLEM ISSUES IN CITARUM RIVER BASIN

- Citarum Water Quality is **Heavily Polluted**
- Prediction **of waste** in Metropolitan **Bandung** **±6000 tons / day**
- **Critical land area** in Upstream Citarum watershed **77,000 Ha**
- North West Java, Bandung regency : **11.750 ha flood** almost every year

Indonesia's Citarum: The World's Most Polluted River

By **World Bank, 2018**

https://www.theguardian.com

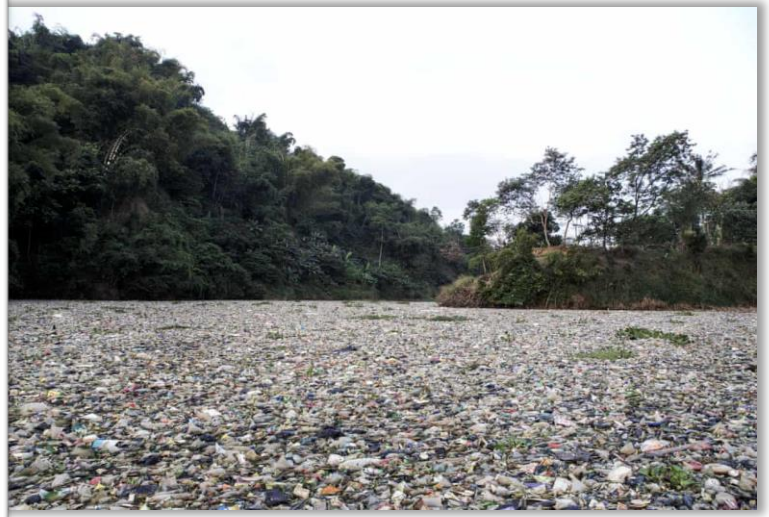
Rotten river: life on one of the world's most polluted waterways –

https://www.dw.com

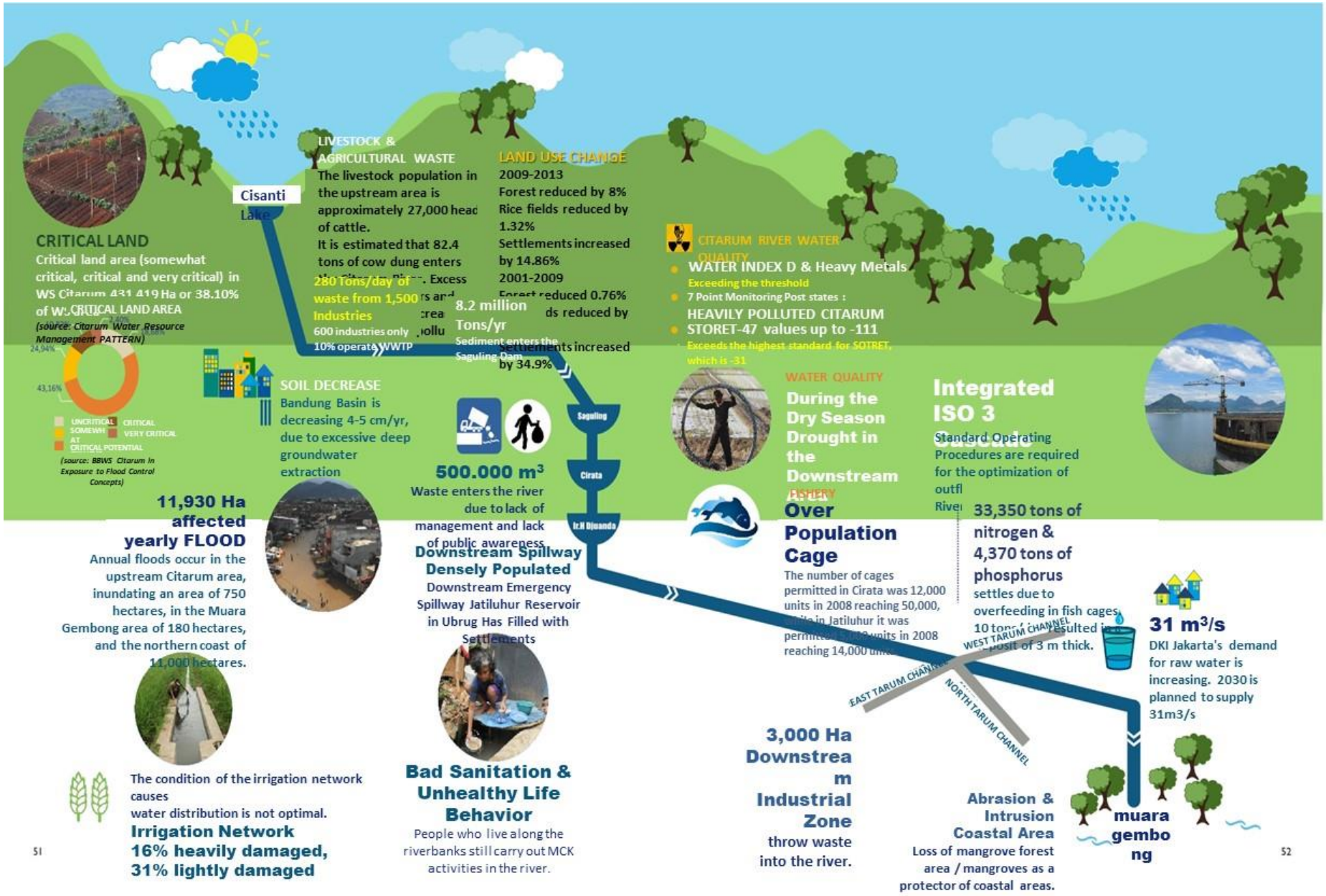
The Citarum river in West Java is considered the dirtiest river in the world. Textile factories discharge tons of untreated toxic waste into the river every day.

Indonesia's Citarum is relied upon by millions, but decades of pollution have choked it with chemicals and rubbish

https://www.idntimes.com/



COMPLEX PROBLEM OF CITARUM RIVER BASIN



Pollution

- Farm waste
- Agriculture waste
- Industrial waste
- Domestic waste
- Fishery waste
- Solid waste
- Sedimentation

Degradation

- Critical land
- Land cover change
- Flood
- Lack of education and law enforcement

LEADERS COMMITMENT

President of the Republic of Indonesia Commitment on Citarum Watershed Rehabilitation

The Project has to finish within 7 years

> Mid-January 2018 we will start from upstream to downstream repairs, revitalization in the Citarum River, because of the information and data that Citarum is very dirty.

> Total revamping until completion in the form of land revilization and things related to tributaries, factory waste we see thoroughly. In order for Citarum to really benefit agriculture, raw water will be clean again enjoyed for life.

INTEGRATED WATER RESOURCES MANAGEMENT

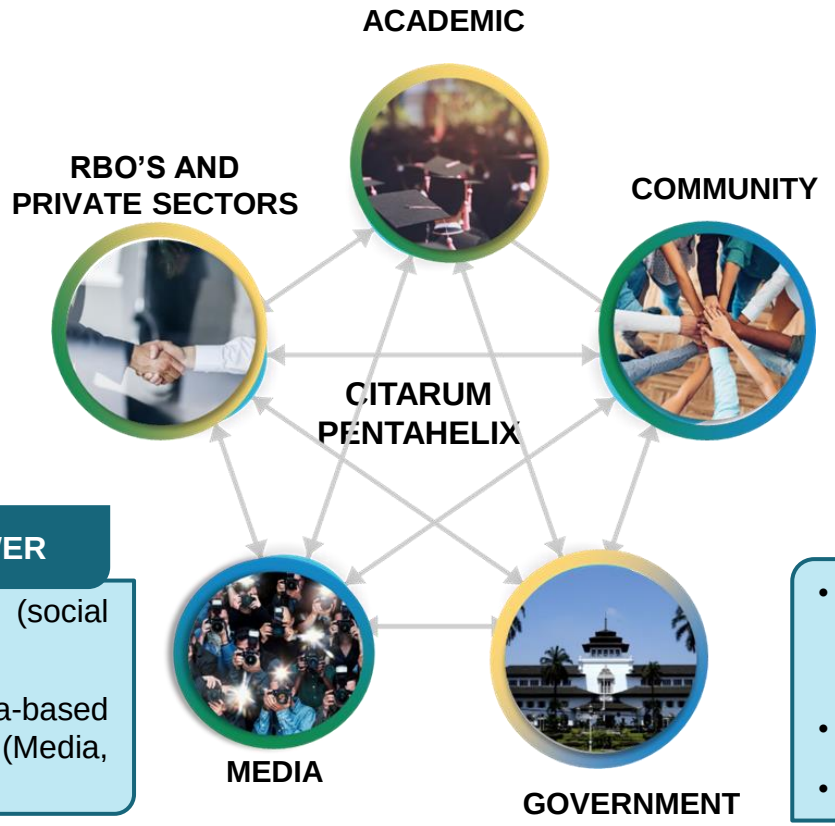
STRATEGIC POLICY – CITARUM PENTAHELIX

KNOWLEDGE POWER

Universities and research institution as centre for Research and Fundamental Projects Ideas to support Citarum

CENTER OF EXCELLENCE

- Center of Excellence for innovative products.
- Business is not solely profit oriented but encourages the economy of the community which is still lacking.
- CSR SOE Forum



SOCIAL POWER

Attracting communities and creative community associations to socialize the Citarum Handling Program and Disaster Mitigation to the wider community

COMMUCATION POWER

- Millennial Advantage (social media)
- AI Platform as a media-based Educational Facility (Media, Audio Visual, Online)

POLITICAL POWER

- Policy formulation through decisions involving all stakeholders
- Environmental law enforcement
- Reward and Punishment

PROGRESS PROBLEM SOLVING OF CITARUM RIVER BASIN

1. Critical Land

Before After

2. Domestic Waste

Before After

3. River Restoration

Before After

4. Industrial Waste

Before After

5. Farm Waste

Before After

6. River restoration

Before After

7. Law Enforcement

Before After

8. Education & Community

9. Research and Information

ULTIMATE GOAL

BEFORE (2018)

AFTER (2023)

2030 Ultimate Goal

Class II Water Quality
Water Quality Index
70 Points

2023 Achievements

MILD CONTAMINANTS
Water Quality Index
50,78 Points

In **2023**, the Water Quality Index was conducted on **516 water quality monitoring points**.

2018 Initial Conditions

HEAVY CONTAMINANTS
Water Quality Index
33,43 Points

Source : West Java Development Planning Agency,2024

SUMMARY

THE CRUCIAL ROLE OF CLEAN WATER IN HUMAN LIFE

Access to clean water is **extremely important** for people to survive and stay healthy. However, the **worldwide problem** of **water pollution**, caused a significant threat to **ecosystems, human health**, and **sustainable development worldwide**.

CITARUM RIVER BASIN (CRB) WATER QUALITY INITIATIVE

The government's commitment as well as Jasa Tirta II as a water company in facing the complex issues of water quality in the **Citarum River Basin** are by implementing IWRM through the Citarum Pentahelix program, managing domestic, industry, and farm waste, river restoration, law enforcement, and other activities.

ACHIEVEMENT AND ULTIMATE GOALS OF WATER QUALITY IN CRB

Since 2018, the water quality index in the Citarum River Basin has improved, with its category declining from **heavy contaminants to mild contaminants**. We are hoping that in the following years, the water quality index will reach the set target, aiming for 70 points or equivalent with the category of **Class 2 water quality by 2030**.


KILOMETER
CITARUM
THANK
YOU