

# MAHANADI

*Common property, uncommon interests...*



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# The Mahanadi Basin

- Most important peninsular river in India
- Hydrologically, the basin can be divided into two parts – upstream and downstream of Hirakud reservoir.
- Total catchment: 141,134 sqkm. Hirakud reservoir intercepts 83,400 sq km, i.e. 59 per cent.
- The catchment has 53% spread in Chhatisgarh and 46% in Odisha.



# Two states, one Life Line

- Principal source of water for two; 40 million people dependent on the river.
- During last 50 years, water use has increased by more than seven times.
- More than 1.1 million hectares of fallow land has been made cultivable in Mahanadi catchment area inside Chhattisgarh alone.
- About 30 per cent of this have been provided with irrigation coverage.
- Odisha's major irrigation coverage is provided by Mahanadi.

# Reducing Resources

- One of the most vulnerable basins, with water availability reducing drastically.
- Run off from Chhattisgarh to Odisha has decreased at a rate of 4 to 5 per cent every decade.
- Average production in the Mahanadi basin during 1950 was 74 Billion m<sup>3</sup> (BCM) out which 71 BCM was draining into the sea. By 2000, production of water decreased by 10 BCM and only about 40 BCM water was flowing into the sea through the river.
- Excessive industrialization during the last decade has made things worse.



# Increasing Vulnerability

- Drastic change in land use pattern has affected the state of the river.
- Forest degradation, mining and industrialization and of late mad coal-fired power generation plan in the basin has affected not only its flow of water, health of the basin but also has made it further vulnerable to climate change impacts.
- The surface air temperature over this basin is increasing at a rate of  $1.1^{\circ}\text{C}$  per century, which is more than double the rate of increase for entire India.
- ***Change in water use the most dangerous trend at the moment.***

# More industry per stretch than water

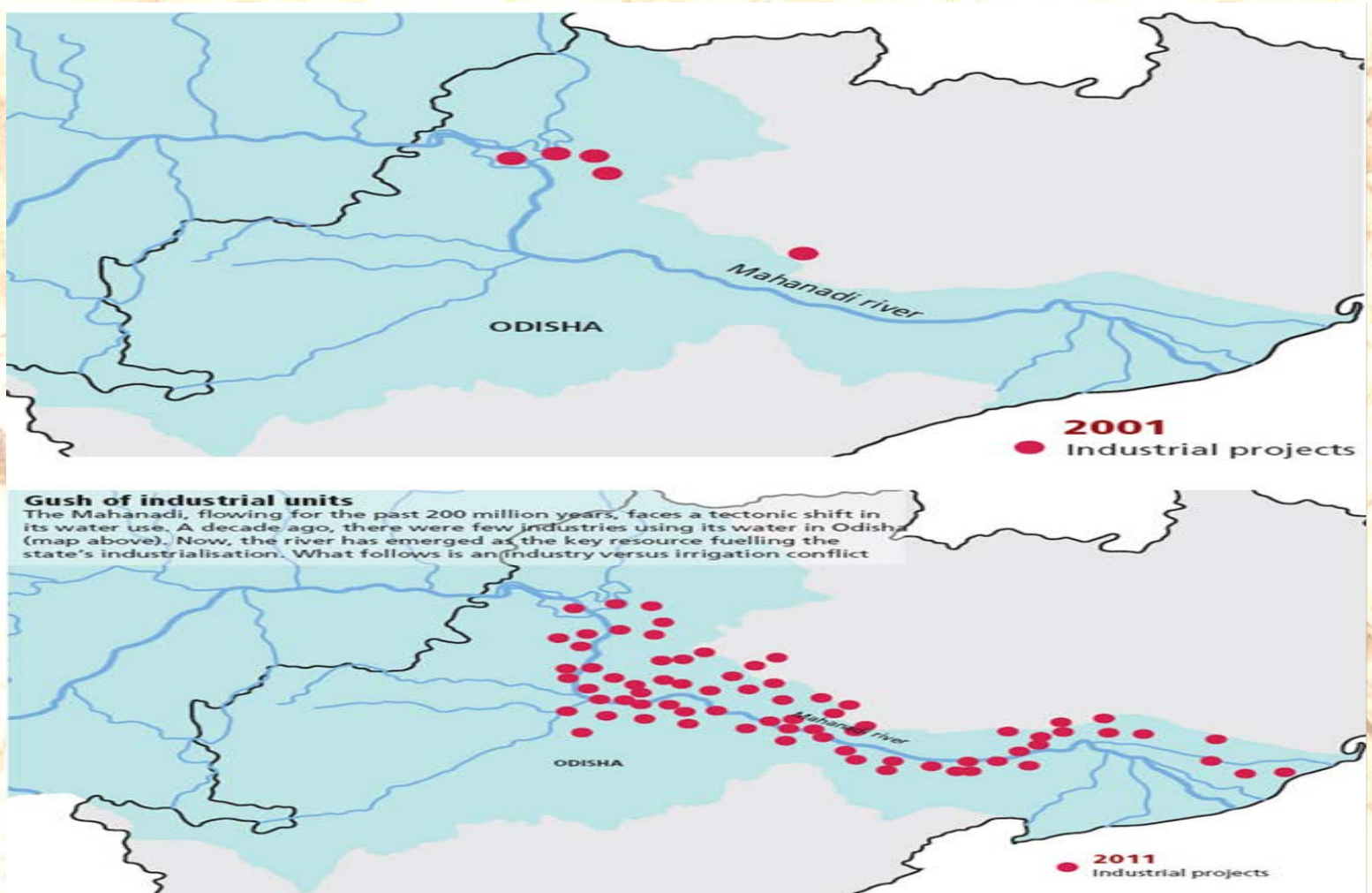


Image Courtesy: Down To Earth



# Coal fired power plants have put Mahanadi on fire already...

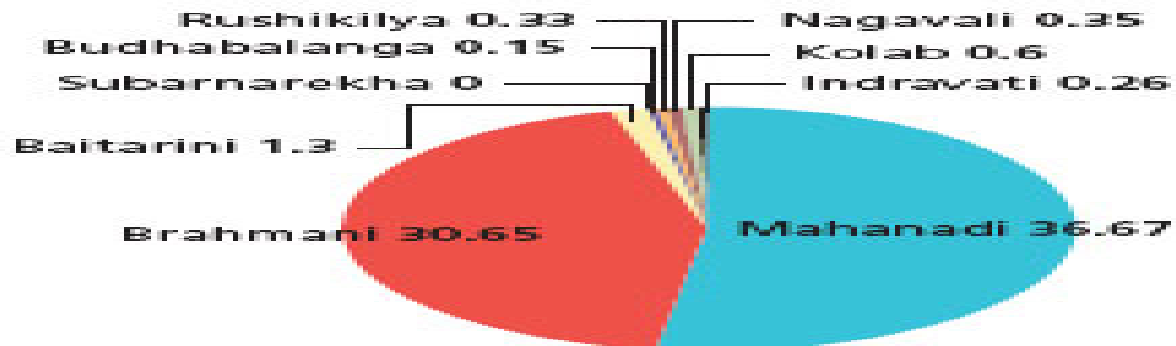
- Chhatisgarh's 58000 MW and Odisha's 75000 MW plans are mostly dependent on Mahanadi.
- With a plant in every five or seven kilometres, the river in upstream Chhattisgarh is already exploited. In Odisha, a plant every 10 kms.
- Downstream Odisha the Mahanadi now provides the maximum water to industries compared to the other 10 river basins in the state. It is a complete river entirely for private use.

# Allocated...

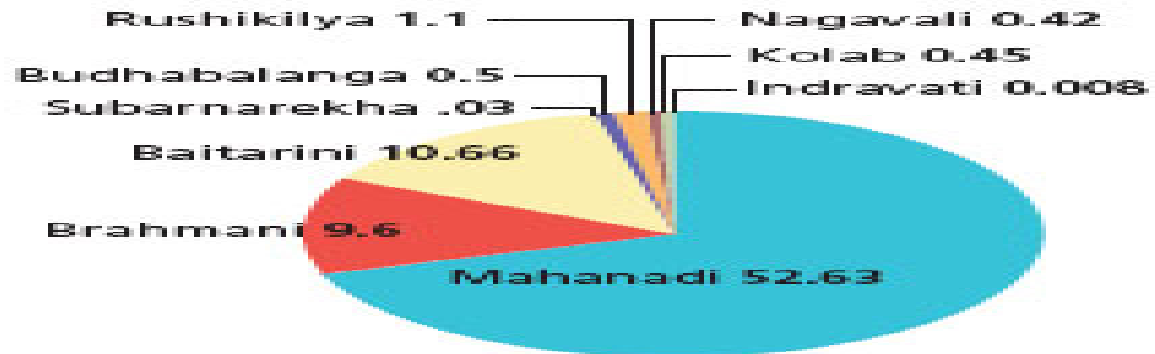
## Burden on the river

Mahanadi will provide maximum water to industries

### Water allocations



### Panel considering allocations



All figures in cumec

Source: Odisha Water Resources Department, January 2012



## Upstream-Downstream reduced to no stream...

- It estimated that water utilisation in Chhattisgarh was about 13803.57 million cubic meter. So at 75 per cent dependability about 20,123.54 million cubic meter water from Chhattisgarh is available for downstream use in Odisha. But during 2001-2011, this has undergone a drastic change.
- At Hirakud the minimum flow to the reservoir was supposed to be 25 MAF. But by 2004 it came down to a precarious 16 MAF. It is estimated that by 2025, dependable inflow to the reservoir will fall to as low as 8-10 MAF with a fall of five percent a decade.

## **Worse to follow; as states don't talk...**

- Chhattisgarh is already constructing six barrages on Mahanadi.
- All of this were supposed to be irrigation projects but are being used for industrial allocation.
- Chhattisgarh Government has planned at least 600 check dams to arrest 30 per cent of the available flow on Mahanadi.
- There are no treaties between two states on the main Mahanadi River.



## People fight all along...

- Mahanadi is witnessing lot of people's struggles from upstream to downstream.
- Hirakud struggle has been historic.
- The new fights are water so much so that government is getting immune to the people's concerns.
- Meanwhile the river turns to E grade in pollution norms.

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## Cutting the river to pieces...

- In real terms we can say that Mahanadi is the only major river of the country which has been completely privatized.
- The issue of privatization thus goes beyond Seonath and makes the river a hotbed of exploitation by private interests.
- Even as the river's health is impoverished, the people at the helm of affairs cut it down to a small water body by talking about it in bits and pieces.

## Time to act...

- Mahanadi still has scope to provide example for sustainable river management.
- States can immediately enter into bi-lateral agreement.
- Immediate cumulative impact assessment of the river taking both riparian states into account.

### ***Point to debate:***

- Community involvement in river management.
- Impacts of recent SC orders: 1. auctioning of natural resources in 2G verdict and 2. SC directive on restoration of commons.
- New water policy: will it privatize the river further?



# Thank You!



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