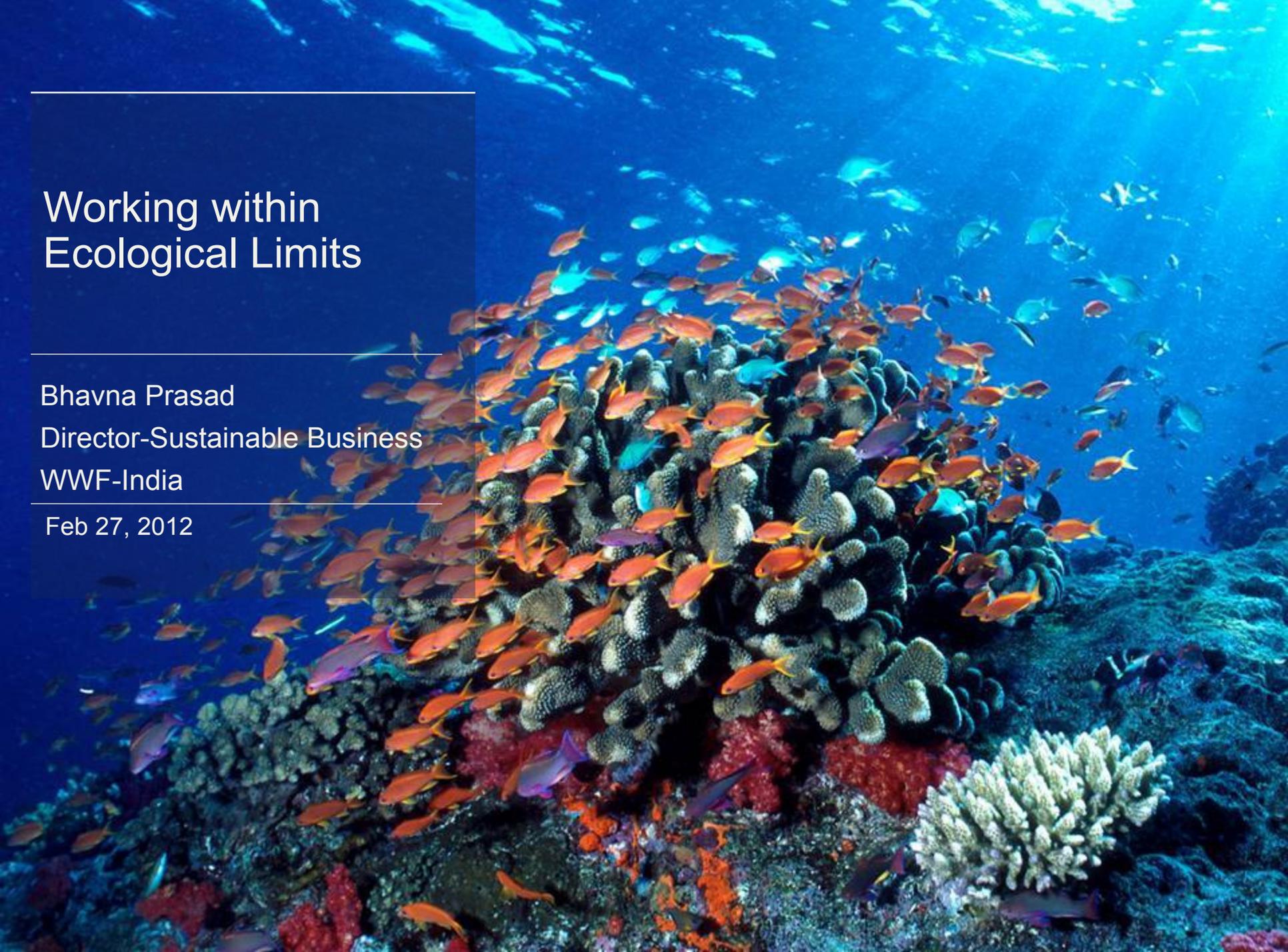

Working within Ecological Limits

Bhavna Prasad
Director-Sustainable Business
WWF-India

Feb 27, 2012





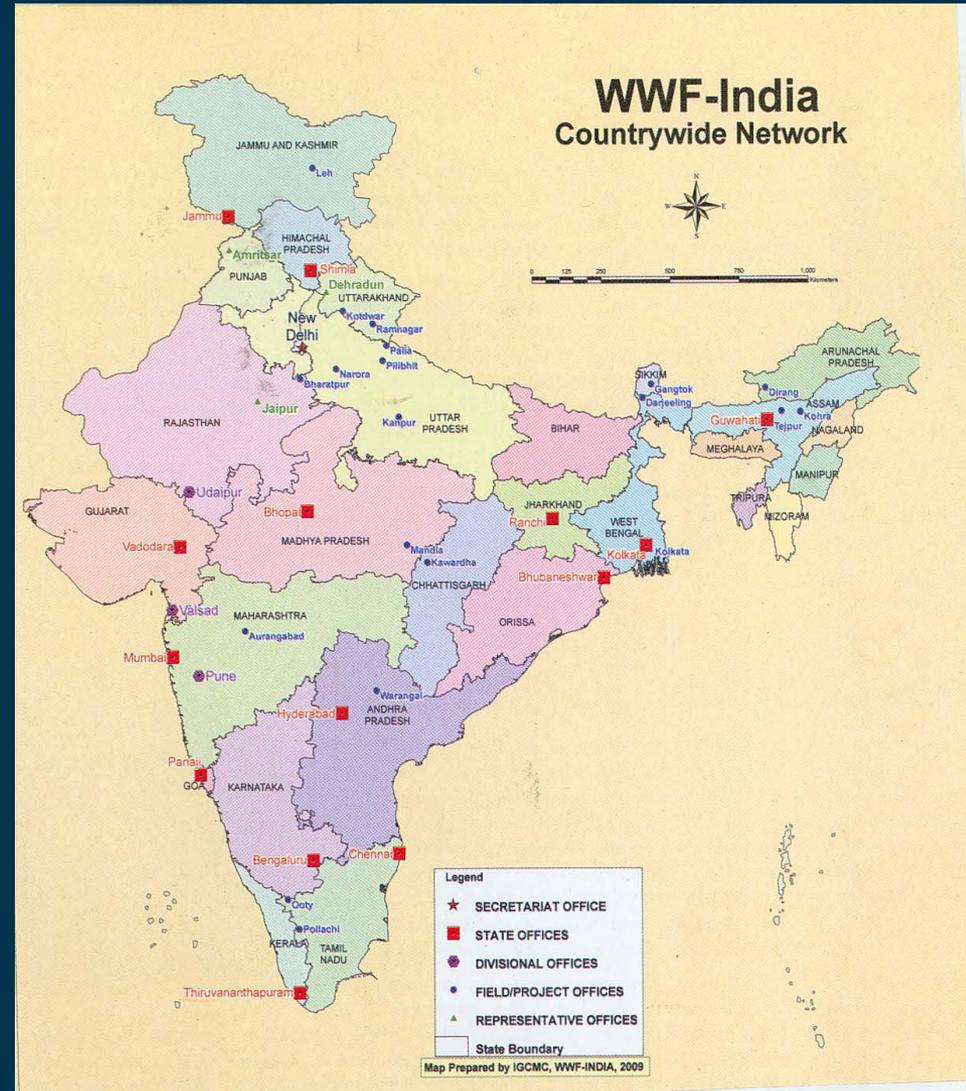
Agenda

- Ecological limits & factors influencing them
- Implications for businesses
- Sustainable development & some solutions



Who we are & where we work

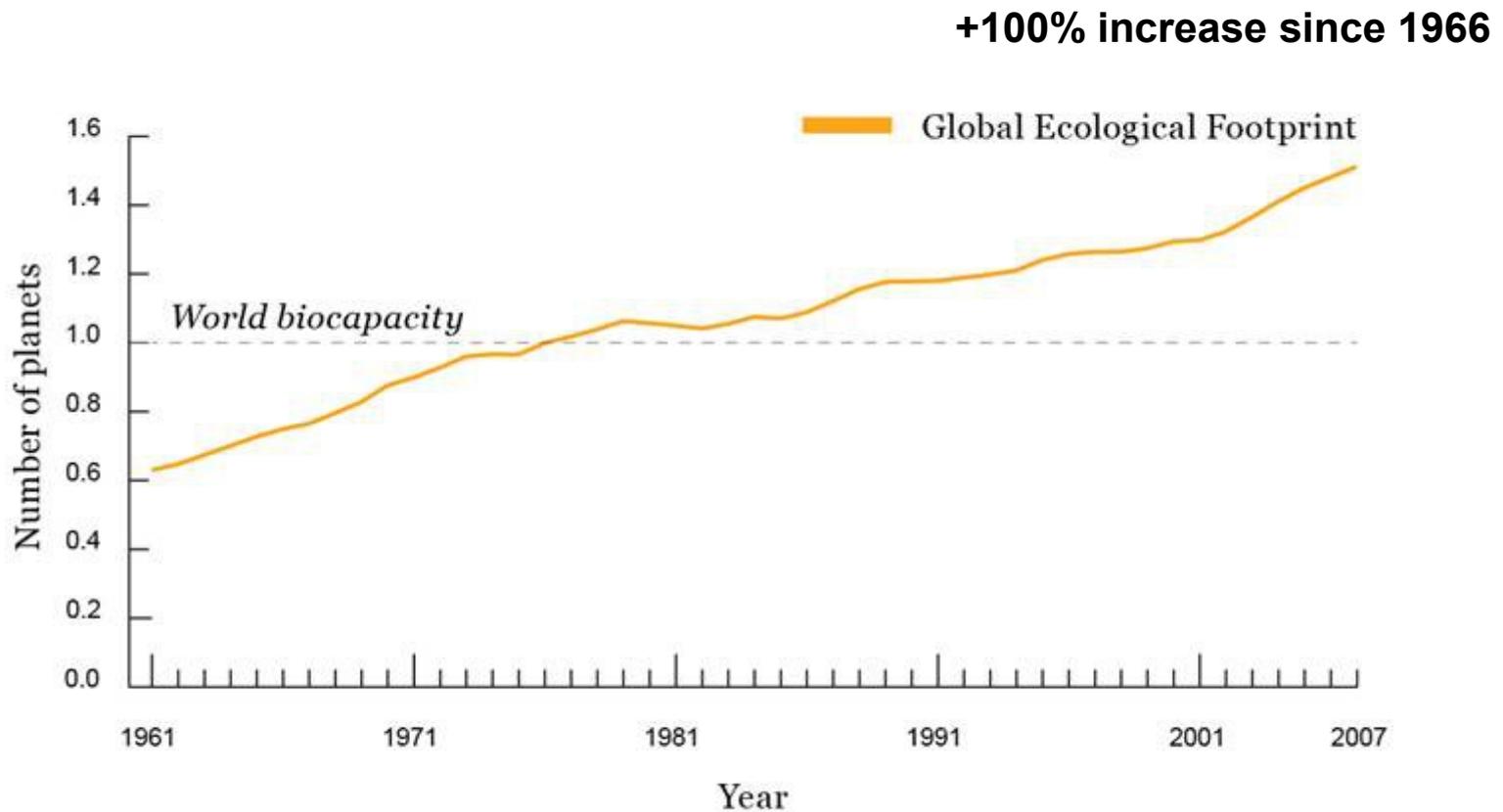
- WWF is one of the largest global conservation organisations
- Presence in over 40 countries with projects in over 100 countries
- HQ - Gland, Switzerland
- WWF-India was registered as an Indian NGO in 1969
- Deep scientific knowledge of environmental issues
- Wide national presence
 - ❖ 14 State Offices
 - ❖ 2 Divisional Offices
 - ❖ 27 Field Offices





Ecological Limits

We now consume at a rate 50% faster than Earth can sustain



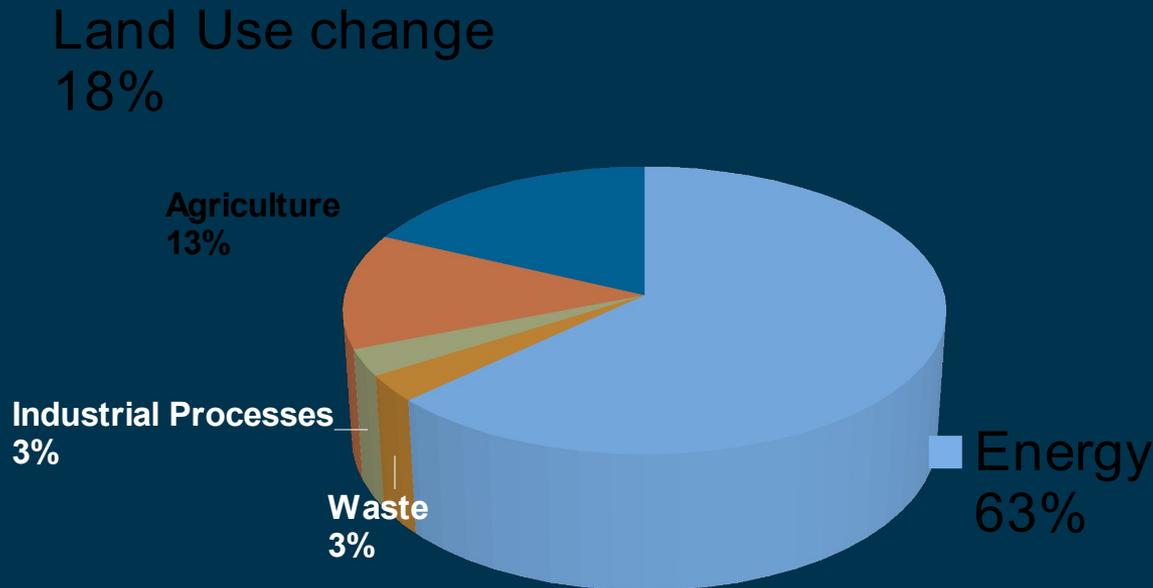
Source: Global Footprint Network



Greenhouse Gases (GHGs)

Increased greenhouse gas emissions, primarily carbon dioxide from human sources (burning of fossil fuels and deforestation)

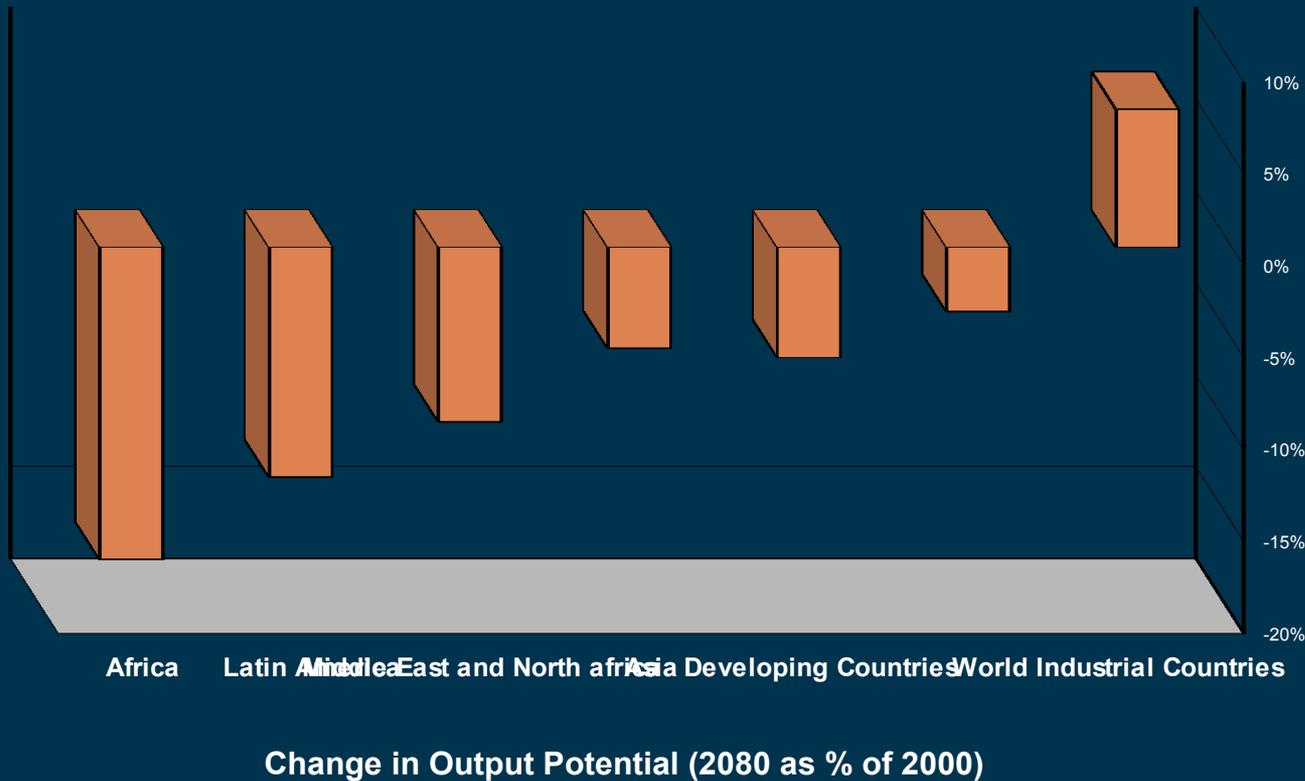
Co2 Emissions by Source





Climate Change Impacts- Agriculture

India may lose up to 17% of its farming income from increase in temperature¹

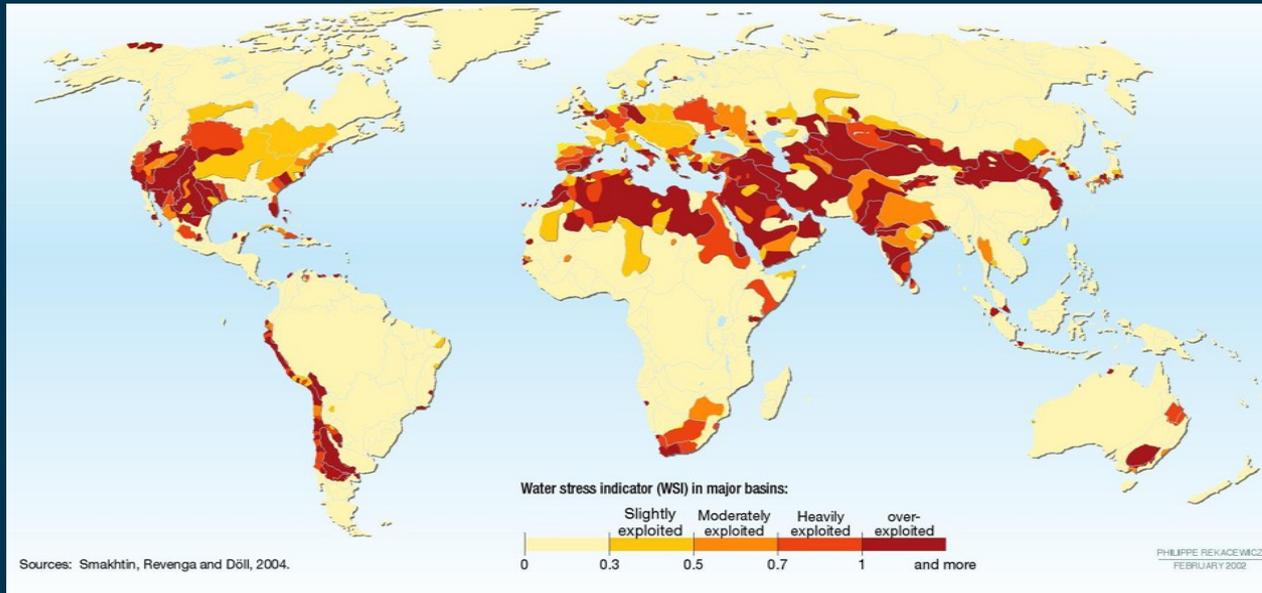


- Increased frequency of
 - Heat waves, droughts
 - Heavy precipitation
 - Insect and disease outbreaks
- Severe impacts for developing countries
 - Food security, malnutrition, poverty,
 - Wheat yields could fall by 5- 10% with every increase in temp by 10C (Pachauri, 2008)



Freshwater Resources

20 % of world's population lives without adequate water

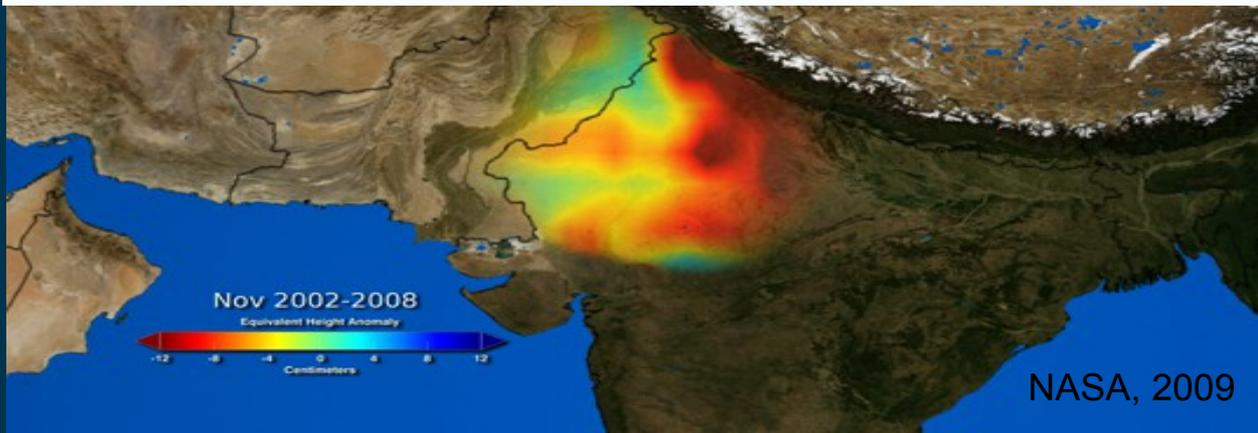


Globally

- 1.1 billion people lack access to adequate freshwater
- About 2.3 billion people suffer from diseases linked to dirty water

India

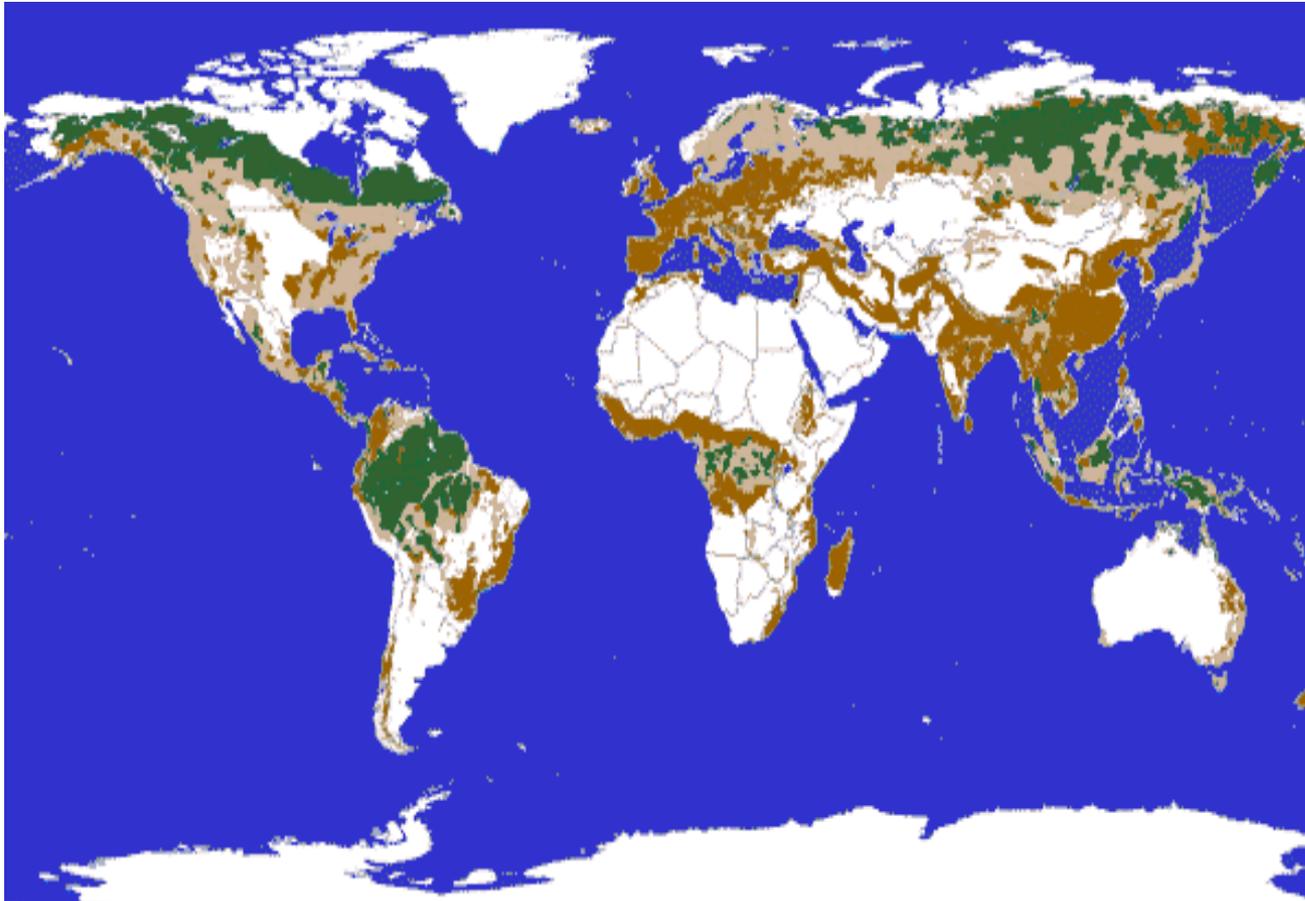
- Nearly 80% of urban waste ends up in rivers
- Rapid decline in groundwater in India's Food Basket States





State of the World's Forests

80% of Earth's original forests have been destroyed

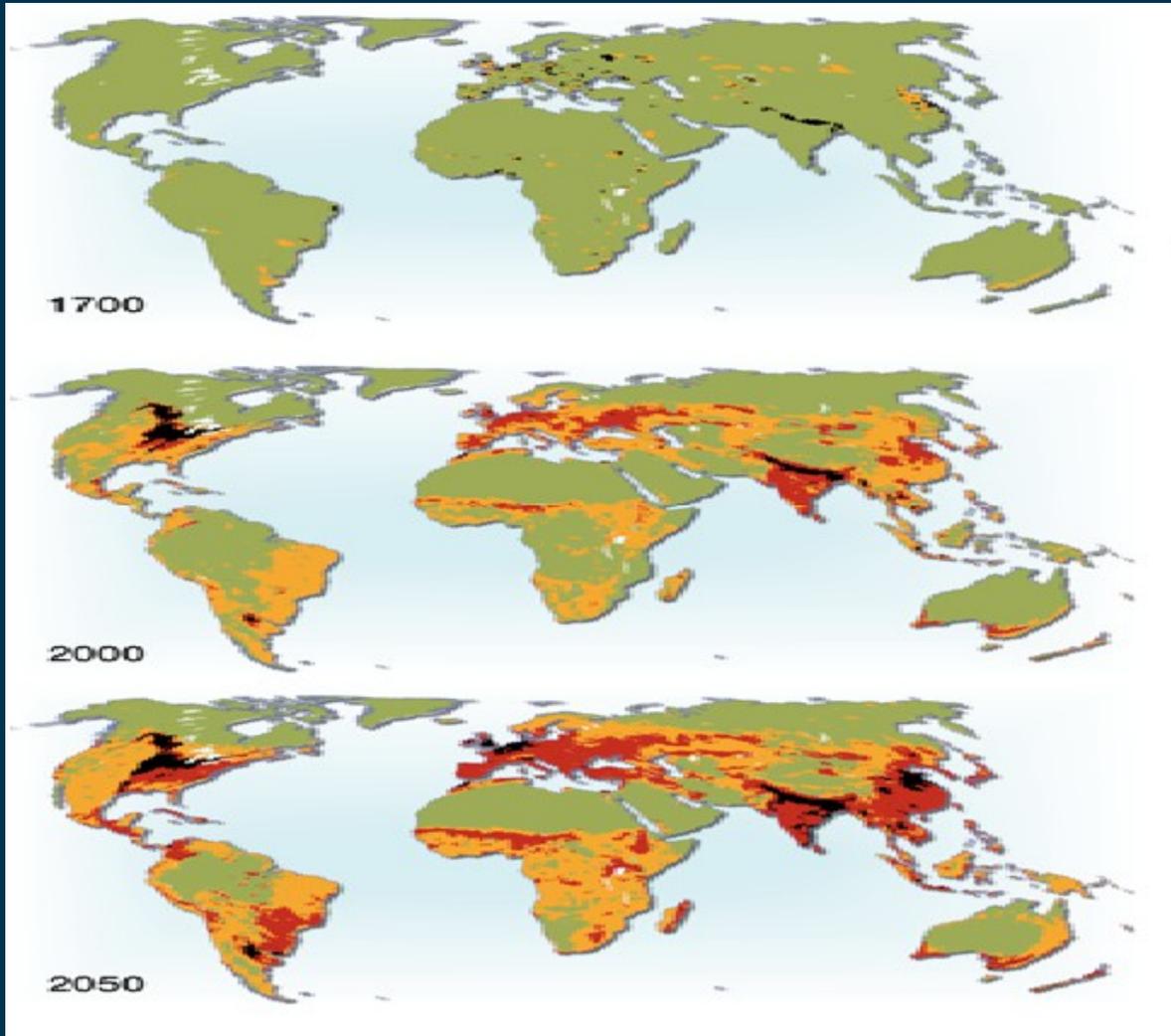


- Almost 60% of the remaining forests are small, disturbed and unable to sustain themselves
- High rate of deforestation for competing economic priorities
- Forest fires, further aggravated by climate change



Biodiversity Loss

Rate of species extinction 1,000 times faster than natural rate (UNEP)



Habitat loss due to:

- Deforestation
- Resource extraction
- Submergence
- Forest fires and loss of productivity of forests
- Changes in temperatures

India – endangered species

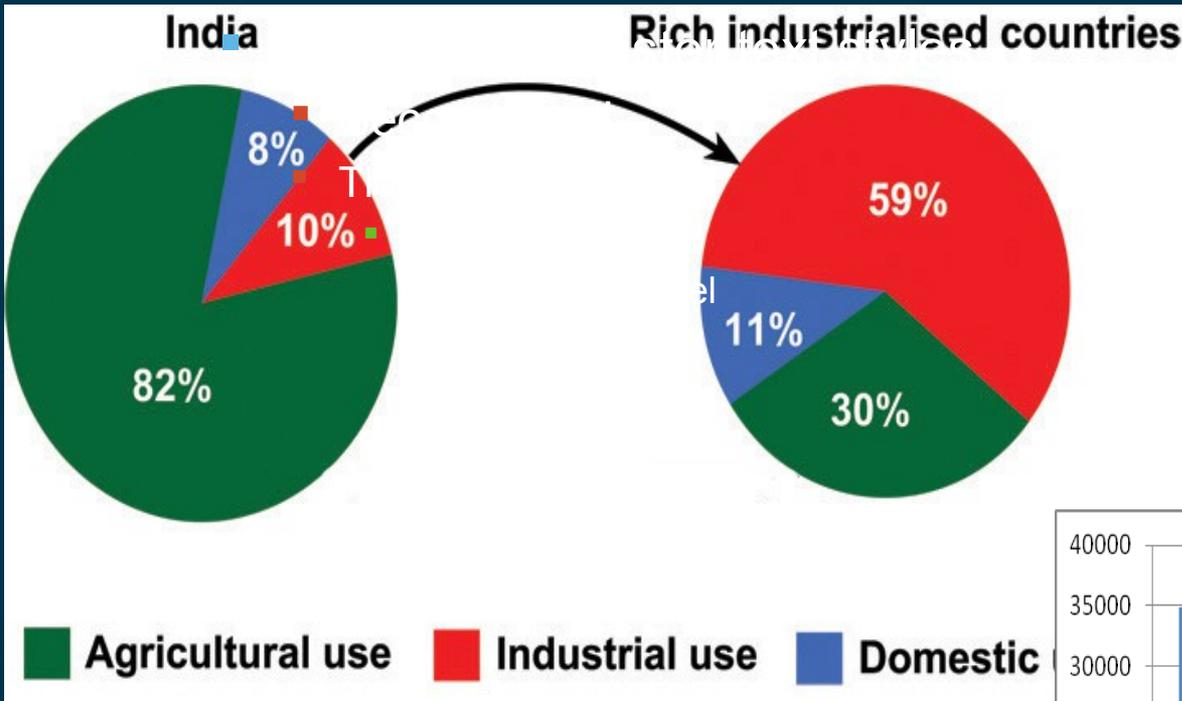
- Tiger
- Indian Elephant
- Ganges River Dolphin
- Nilgiri Tar

Biodiversity, as ratio of species abundance before human impacts	
High impacts	0 - 25
High-medium impacts	25 - 50
Medium-low impacts	50 - 75
Low impacts	75 - 100 %

Mean species abundance (%)

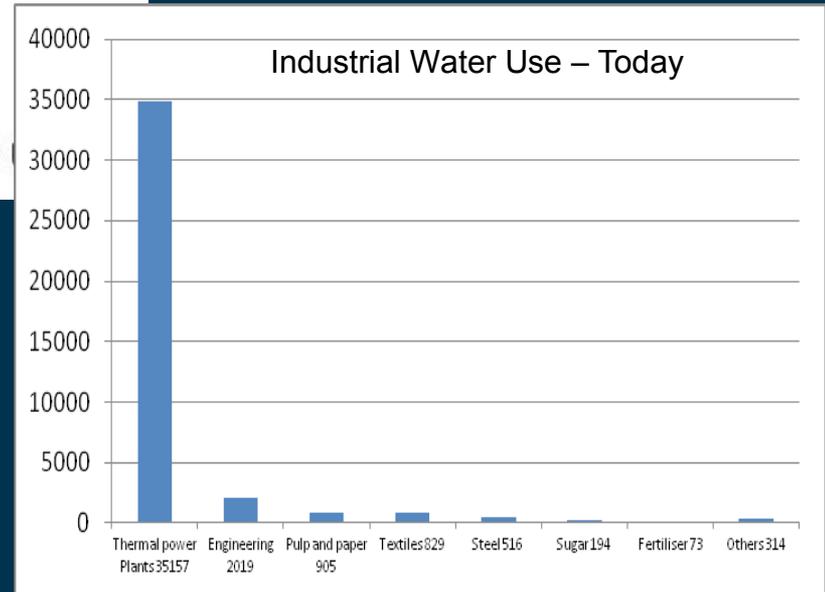


Industrial water usage to grow in future

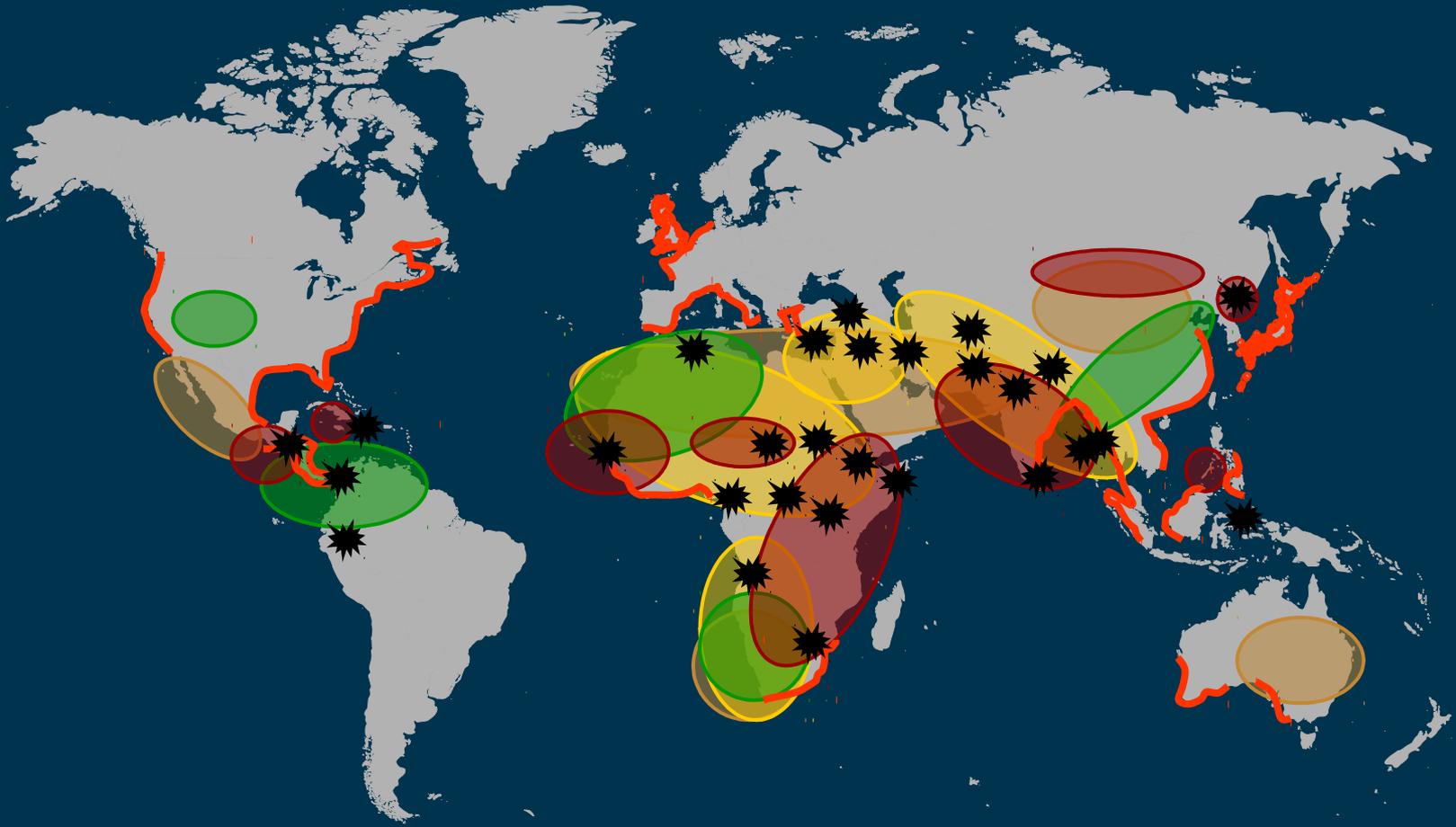


- Growing consumption
- By 2030, demand will be 50% more than supply

- Thermal power plants consume 88% of water within industrial sector



How these trends interact



Water Scarcity



Demography



Crop Decline



Hunger



Coastal Risks





Union Carbide and BP



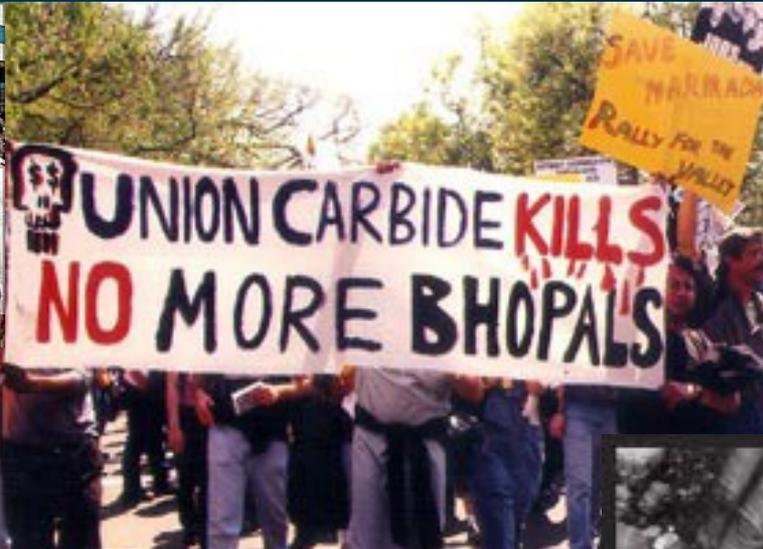
Bhopal gas leak,
Union Carbide



Gulf of Mexico,
BP



Increasing Conflicts



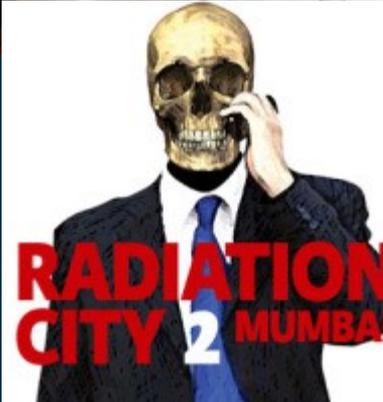
**VEDANTA'S
PROFIT
DONGRIA'S
DESTRUCTION**



CELL TOWERS HEALTH RISKS



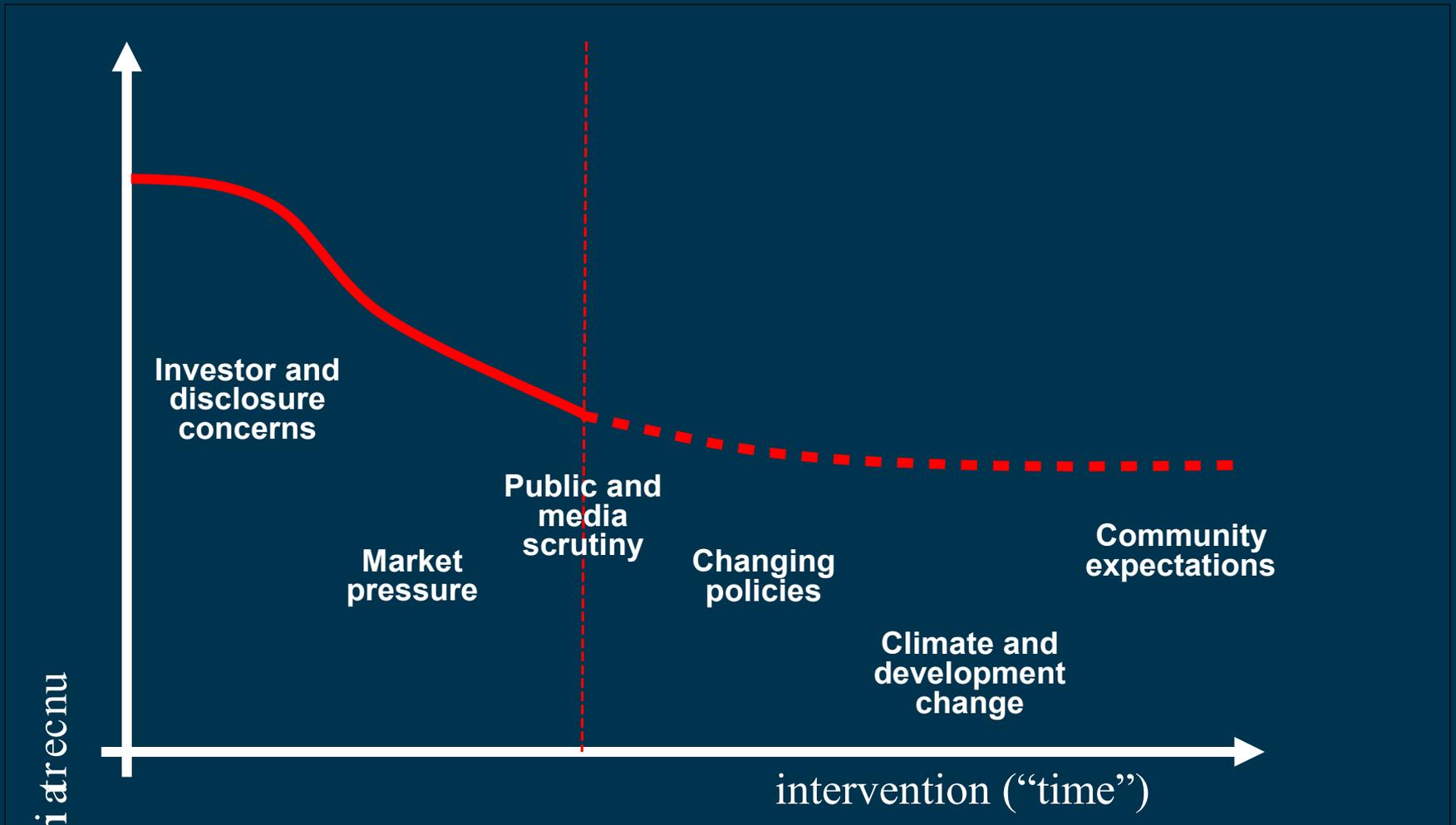
**Dow shall be
liable.**



**WE WON'T LET YOU BURY JUSTICE.
EXTRADITE THE BUTCHER OF BHOPAL.**



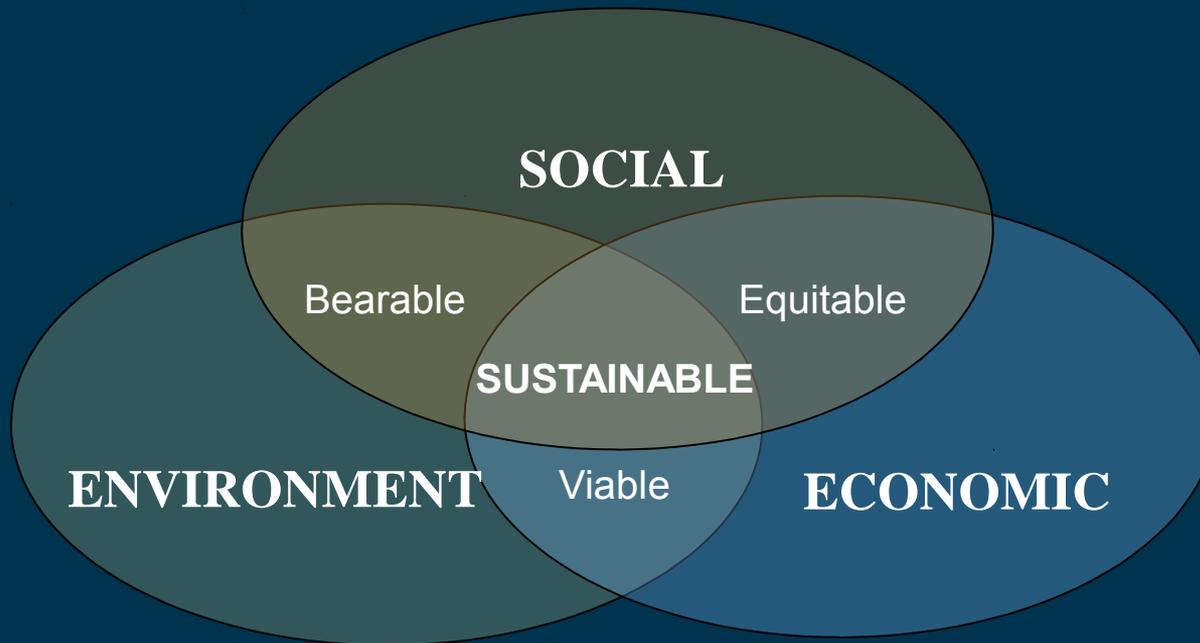
Risk to Businesses





Sustainable Development

“**Sustainable development** is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (Brundtland Commission 1987)



At the 2005 World Summit it was noted that this requires the reconciliation of environmental , social and economic demands - the overlapping "three pillars" of sustainability



Work With Market Forces



Markets



Places



Policies

Climate



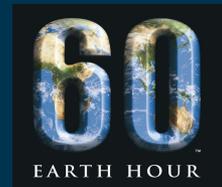
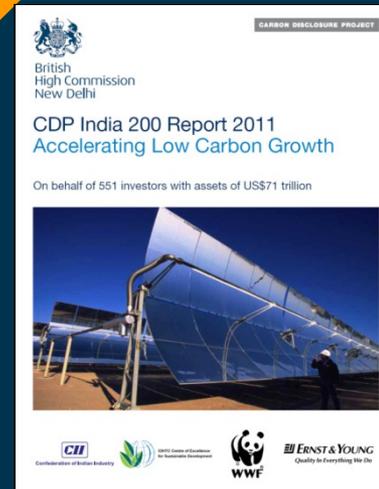
Carbon: Reducing Emissions

The Challenge

- Climate Change is a key global threat that WWF has identified as undermining its other conservation initiatives
- Food Production and Deforestation are major contributors



WWF's Response



- Carbon Disclosure Project
- Climate Solvers – Innovation
- Earth Hour campaign
- Climate Policy and Adaptation



CDP Top 200 Report - 2011

Table 1: Companies recognized on Carbon Disclosure Leadership Index (CDLI) in India

Sector	Company Name	CDLI scores
Information Technology	Tata Consultancy Services	86
Information technology	Wipro	80
Financials	YES BANK Limited	78
Materials	ACC	78
Materials	Tata Chemicals	77
Consumer Staples	Tata Global Beverages	76
Materials	Sesa Goa	75
Utilities	GVK Power & Infrastructure	75
Industrials	ABB	72
Utilities	Tata Power Co.	71



Freshwater: Promoting Responsible Stewardship

The Challenge

- By 2050, 7 of 9 billion people will live in areas of water scarcity
- Almost a billion people already lack access to safe drinking water
- Half the world's wetlands have been destroyed



WWF's Response



- Facilitating development of **voluntary water use standards**
- **Water efficiency** in supply chain e.g. cotton, sugar and rice
- Partnering with companies to measure and reduce “**water footprint**”



Wood: Promoting Responsible Forestry

The Challenge



WWF's Response



**GLOBAL
FOREST
& TRADE
NETWORK**

- Companies committing to responsible forest management and certification e.g. ITC
- FSC – capacity building



Agriculture: Improving Practices Around The World

The Challenge



- Half of the topsoil lost globally
- Agriculture uses 70% of the world's water

WWF's Response



- Work with multi-stakeholders to develop and define credible standards
- Test and demonstrate the commercial benefits of better management practices



Cotton – Better Management Practices



Click to edit Master text styles
Second level

● Third level

● Fourth level

● Fifth level

Andhra Pradesh

Maharashtra

District

Warangal

Aurangabad & Jalna

No. of farmers

1,418 (scaling up)

5,550 (scaling up)

Area

4,081 acres

11,400 ha

No. of villages

28

65

Project supporters

2007-08 (IKEA)
2009-11 (Marks & Spencer)

2009 -13 (IKEA)



Finance: Helping The Financial Sector Make Better Decisions

The Global Challenge



Financial institutions enable environmentally and socially damaging activities through their lending and investing practices

WWF's Response

- Developing better risk management tools, e.g. HSBC
- Encouraging stronger regulations relating to sustainability
- Educating financial institutions about emerging risks such as water security





Thank you

