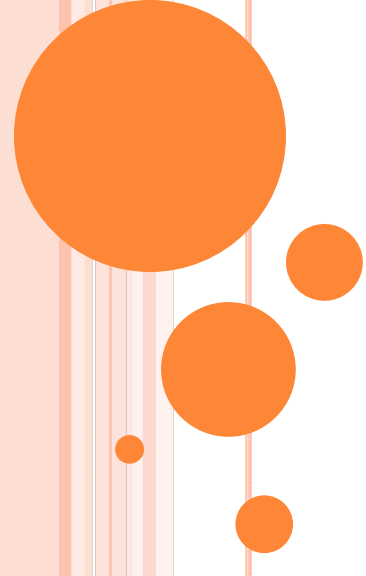


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WATER GOVERNANCE – NEW THINKING



**Suresh S Prabhu
Regional Chair,
GWP-SAS
India**

GOOD WATER MANAGEMENT

- Good water management can provide clean drinking water and sanitation, the basics of good health,
- Good water management can bring hydroelectric power to homes and industry, irrigation for agriculture, and improve the economy,
- Good water management allows water for wildlife to maintain biodiversity, and provides opportunities for recreation and tourism,
- Good water management can result in harmonious and mutually beneficial water agreements with neighbouring countries,



POOR WATER MANAGEMENT

- Poor water management can increase disease and suffering.
- Poor management can mean lack of power, desiccated crops, floods and famine.
- Poor management can result in parched ground, dried-up lakes and silted harbors.
- Bad management can trigger tensions and conflict.

In short, good water management brings tangible benefits to a country.



INDIA – A BIGGER PICTURE

○ Water Resource Endowments

- 16 % of the world's population
- Only 4 % of its water resources
- Erratic Rainfall (100mm to 11000mm)
- Temporal Rainfall (only 3 months rain)
- Utilizable water resource -1,132 BCM

○ Water Stresses

- In 1947 1.8 Lacs cu ft available annually per head, 2001 only 90K cu ft.
- In the Last 3 decades increase in the levels of suspended solids in rivers by a factor of 4.



INDIA – A BIGGER PICTURE

○ National Water Resource Development

- National Commission for Integrated Water Resources Development Plan (NCIWRD) -13th September 1996.
- Aims :
 - *Maximise the conversion of available water of 1000 BCM to utilizable water.*
 - *Optimise the use of utilizable water to yield maximum benefits.*
 - *Prevent the resource from being rendered unfit for use through pollution control.*

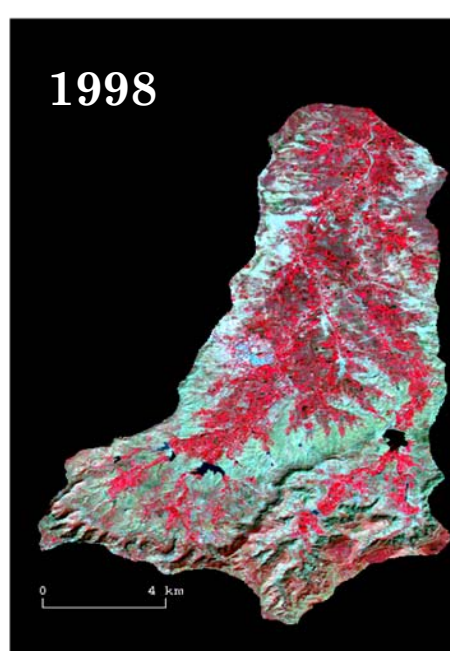


INDIA – A BIGGER PICTURE

○ **Role of Science & Technology**

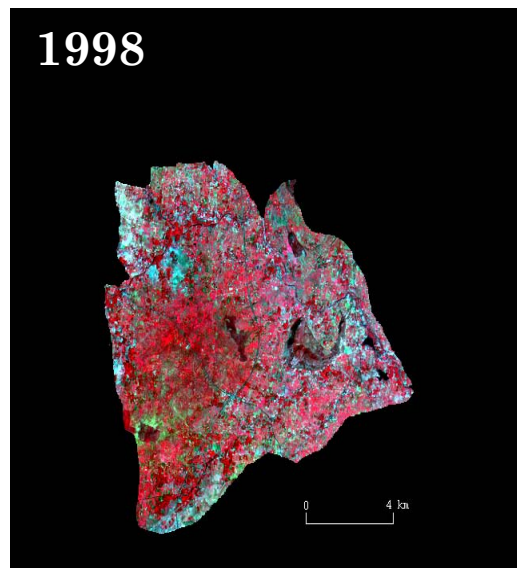
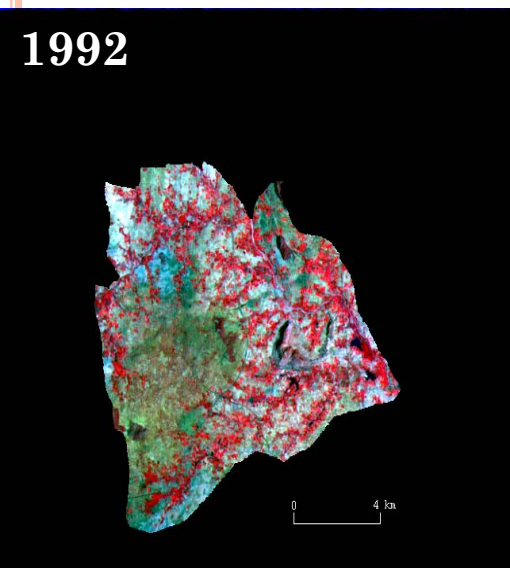
- Integrated Mission for Sustainable Development (IMSD) Projects- 175 Districts
- Water Shed development Plans
- R&D Areas identified by NCIWRD





Dense vegetation - 1992 - 50.72 ha
 Sparse vegetation - 1992 - 69.12 ha

Dense vegetation - 1998 - 803.68 ha
 Sparse vegetation - 1998 - 1058.08 ha



Dense vegetation - 1992 - 523.26 ha
 Sparse vegetation - 1992 - 246.12 ha

Dense vegetation - 1998 - 1326.81 ha
 Sparse vegetation - 1998 - 481.87 ha



INDIA – A BIGGER PICTURE

○ Support of S & T in policy decision implementation

- 1) Maximisation of available water to utilizable water:
 - *Assessment of water resources.*
 - *Rejuvenation of surface waterbodies*
 - *Locating Water Harvesting Structures*
 - *Artificial Groundwater Recharge*
- 2) Optimise the use of utilizable water to yield maximum benefits
 - *Landuse Planning*
 - *Interbasin Transfer*
- 3) Prevent the resource from being rendered unfit for use through pollution control
 - *Agriculture*
 - *Industrial*
 - *Domestic sector*
 - *Land Management*
 - *Groundwater contamination & Salinity ingression*



WATER LAWS IN INDIA – *NATIONAL WATER POLICY 2002*

- Water Resource Planning
- Water Allocation priority
- Ground Water development
- Irrigation
- Participatory Approach to Water Resources Management
- Conservation of water
- Drought-prone area development
- Water Sharing / Distribution amongst the States



PROJECTS AND ACHIEVEMENTS IN INDIA

○ **Conservation of natural resources**

- National Lake Conservation Plan
- Seva Mandir approach
- Restoration of lakes - HUDA

○ **Rain Water Harvesting Initiatives**

- HUDA and Govt of TN

○ **Integrated Water management**

- Integrated Wastewater recycling project
- Decentralised Wastewater Treatment
- Wastewater recycling
- Dual piping system



CONCLUSION

“If the public leads, politicians will surely follow.”

-Time Magazine

“Water is a resource to be managed and a service to be delivered”

