

Ministry of Water Resources,
River Development
and
Ganga Rejuvenation

Current Focus
and
Future Directions

Our goal

**Effective use of the country's water resources
to optimise national welfare and Ganga Rejuvenation**

Guiding Philosophy

Equity & Sustainability

Stakeholder involvement

Mass awareness & local capacity building

Organizations Under the Ministry

- Central Water Commission, Delhi (Attached Office)
- National Water Development Agency, Delhi (Autonomous Body)
- National Ganga River Basin Authority
- Central Ground Water Board, Faridabad (Subordinate Office)
- Brahmaputra Board, Guwahati(Statutory Body)
- Ganga Flood Control Commission, Patna (Subordinate Office)
- Central Soil and Material Research Station, Delhi (Attached Office)
- Central Water and Power Research Station, Pune (Subordinate Office)

Organizations Under the Ministry contd..

- Farakka Barrage Project, Farakka (Subordinate Office)
- Sardar Sarovar Construction Advisory Committee, Vadodara
- Bansagar Control Board, Rewa (Subordinate Office)
- Upper Yamuna River Board, Delhi (Subordinate Office)
- Narmada Control Authority, Indore (Statutory Body)
- National Institute of Hydrology, Roorkee (Autonomous Body)
- WAPCOS Limited, Delhi (PSU)
- National Projects Construction Company Limited, Faridabad (PSU)

Achievements so far

- Out of a total irrigable area of 140 M.Ha., irrigation potential of 112.8 M.Ha. has been created. Out of this 88 M.Ha. is currently being utilised
- 20.5 M.Ha. of Command Area has been developed through the CAD-WM Scheme of MoWR
- During XI Plan, 2100 Water Bodies restored with irrigation potential of 0.92 lakh hectare
- 16 ILR links under Himalayan component and 14 ILR links under Peninsular component are under consideration

New initiatives and focus areas

- Inter-linking of Rivers
- Rejuvenation of River Ganga
- Technology Up-gradation
- International Collaboration
- Irrigation potential created and command area developed
- Conservation of Ground Water
- Dam Rehabilitation and Improvement Project

Interlinking of Rivers operationalised

- *Ken – Betwa link project initiated - dam on river Ken along with 221 Km long Link Canal; Provide annual irrigation to 6.35 Lakh Ha., Drinking Water Supply to 13.42 lakh people and 78 MW hydropower in Madhya Pradesh and Uttar Pradesh ;*
- **DPR of Damanganga – Pinjal link project for drinking water supply to Mumbai city completed and submitted to the Governments of Maharashtra and Gujarat**
- **DPR of Par-Tapi-Narmada Link Project, which will provide large irrigation benefits to drought prone Saurashtra and Kutch area of Gujarat, is scheduled to be completed by March, 2015**

Renewed thrust to Interlinking of Rivers

- **Government approval on 24th July, 2014, for Constitution of a Special Committee on ILR, under the chairpersonship of Hon'ble Minister (WR)**

- **National Perspective Plan (NPP) for Water Resources Development/ILR formulated with two components:**
 - **Peninsular Rivers Development – 16 links**
 - **Himalayan Rivers Development – 14 links**

- **Additional Irrigation Potential : 35 Million hectare;**
- **35 million families likely to be benefitted.**
- **Additional Hydro-Power Potential : 34,000 MW**
- **Other benefits : Domestic & Industrial Water Supply; Mitigation of Droughts; Flood Control; Navigational Facilities; Employment Generation; Fisheries; Recreation Facilities and Socio economic Development**

Integrated Ganga Conservation Mission- Namami Gange

- The work of Ganga Rejuvenation transferred vide Gazette notification dated 1.8.2014; Ganga and its tributaries brought under one umbrella
- Rejuvenation of Ganga prioritised as “ restoration of its wholesomeness by ensuring aviral dhara & nirmal dhara as also its ecological and geological integrity
- Improved coordination among various ministries through Group of Secretaries (GoS) setup on 6.6.2014; The GoS met regularly (10 meetings) and submitted its report on 28.08.2014
- Ensuring people’s participation –
 - First National Dialogue – ‘Ganga Manthan’ held on 7th of July 2014
 - Website of NMCG launched on 12th of September 2014;
- Amendments to the constitution of NGRBA – provision for Minister of (WR, RD and GR) as vice-chairman and inclusion of more ministries

Short Term strategy

(ensuring aviral dhara, nirmal dhara)

Ensuring Nirmal Dhara:

- In situ sewage treatment in open drains under technical guidance of CPCB;
- Rehabilitation and up-gradation of existing Sewage Treatment Plants (STPs)-
- Industrial pollution abatement in urban habitations
 - Consultation workshop with State Pollution Control Boards and Industrial Associations held on 19th September 2014
 - Workshop with Industries scheduled on 8th of October 2014
- Safe disposal of flowers and other puja material – Demonstration projects planned at identified locations
- River Front Management and Ghat developments – 7 river front locations identified
- Project for identification of special properties of Ganga Jal, Water quality monitoring and sediment analysis through NEERI; report within 15 months.

Short Term strategy

(ensuring aviral dhara, nirmal dhara contd.)

Ensuring Aviral Dhara:

- A committee of Additional Secretaries of Mo(WR,RD&GR) and MoEF&CC to recommend on provisional environmental flow
- Committee constituted to revise existing guidelines on sand mining by MoEF&CC
- Feasibility of diversion from suitable upstream location of Bhagirathi, being examined, report expected from IIT-Kanpur

Ensuring Ecological integrity:

- Afforestation – Conservation of Flora, Forest Research Institute (FRI), Dehradun requested for the plan
- Aquatic species restoration plan including Dolphin Action Plan and Conservation plan for fisheries through CIFRI
- Plan for conservation of medicinal plants in the upper reaches of Ganga and its tributaries; National Medicinal Plants Board consulted

Medium and Long Term strategy

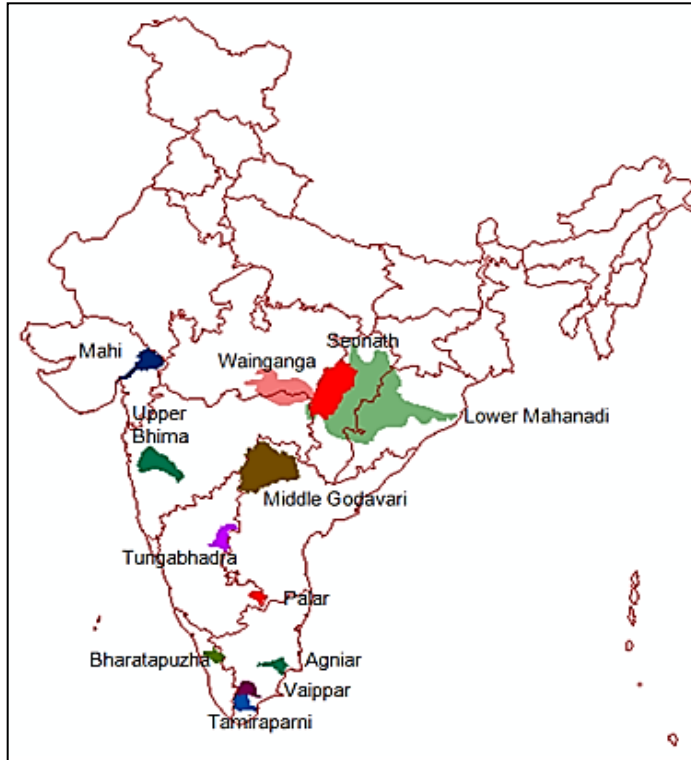
Medium Term Plan

- Sewerage infrastructure coverage for identified 118 towns
- Creating enabling environment through CPCB to achieve the objective of zero liquid discharge
- Sanitation measures in 1649 Gram Panchayats as identified by Ministry of Drinking Water and Sanitation

Long Term Plan

- To emerge from Ganga River Basin Management Plan (GRBMP) being prepared by consortium of 7 IITs, likely to be submitted by December, 2014 - Interim Report received from IIT consortium

Technology Upgradation Decision Support System (DSS) for Water Resources Planning and Management



Real time water level and water quality monitoring

- i. Surface water planning for investments and inter-sectoral water allocation**
- ii. Integrated operation of reservoirs for flood and irrigation management.**
- iii. Conjunctive water use planning for surface and groundwater**
- iv. Water quality management**

DSS now being extended to the Ganga and Brahmaputra basins under a Rs. 3000 crore Hydrology Project (HP-III).

Development of Water Resources Information System (DWRIS)

- **Modernization and expansion of Hydrological Observation Sites - 800 new sites for wider coverage**
- **Modernization and expansion of monitoring of Storage on the major reservoirs - from present 85 to 120 reservoirs**
- **Conducting 5th Minor Irrigation Census**
- **Web enabled Water Resources Information System' named as **IndiaWRIS** - National Water Informatics Center (NWIC) to maintain & update India WRIS.**
- **Empowering communities through well informed water related database for better research, planning, development, management in the area of water resources.**



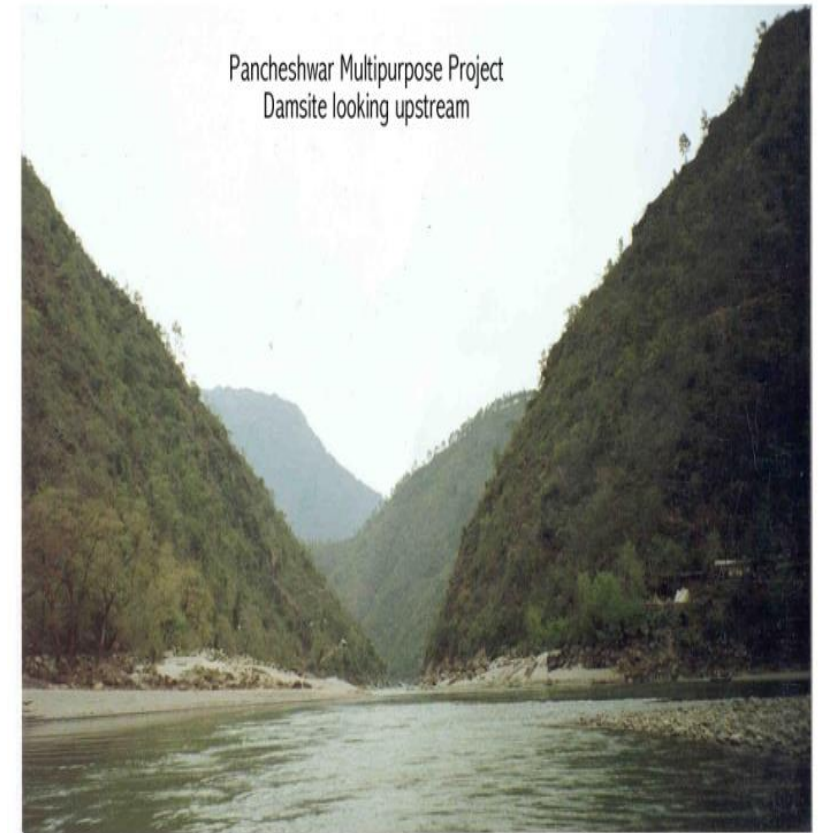
International Cooperation

Agreement signed between India & Nepal during the recent visit of Indian Prime Minister to Nepal paving the way for constitution of Pancheshwar Development Authority.

Pancheshwar Multipurpose Project is expected to have installed capacity of 5600 MW and create irrigation potential of 0.37 MHa (0.24 in Indian side MHa & 0.13 MHa in Nepal) at a cost of Rs. 29,704 crore (2011 prices); mitigate floods in Indian side in the States of Uttarakhand and Uttar Pradesh.

Implementation Plan revised with China on June 30, 2014 to receive extended hydrological information of Yaluzangbu /Brahmaputra rivers from 15th May to 15th October every year.

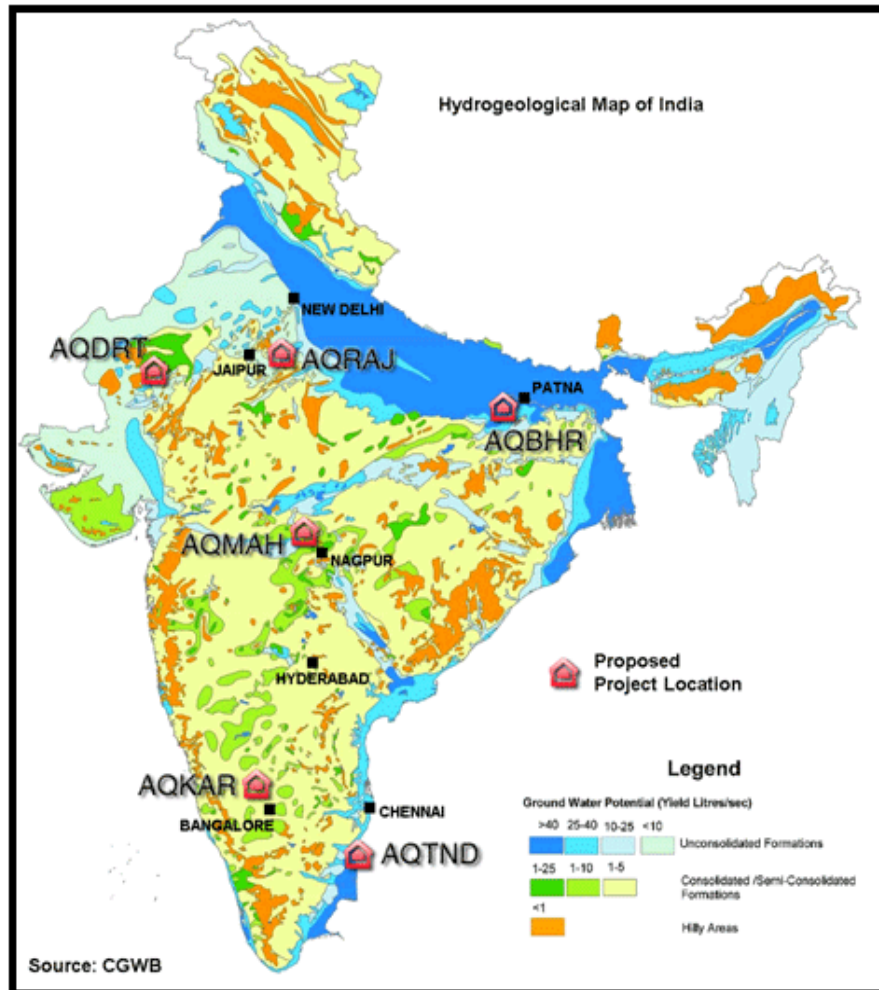
MOU with Australia for cooperation in the field of Water Resources



Irrigation potential created and command area development

- **AIBP Scheme being rationalised for smooth implementation and quicker utilisation of the created potential.**
- **Restoration of 10,000 water bodies envisaged with irrigation potential of 6.235 lakh hectare during XII plan,**
- **965 Water Bodies sanctioned for restoration during the last three months with irrigation potential of 0.85 lakh Hectare. (Odisha-760, Uttarakhand-5, Madhya Pradesh - 134, Tamil Nadu - 49, Uttar Pradesh - 8 and Meghalaya - 9)**

Conservation of ground water



- NAQUIM
- Aquifer mapping in 6 pilot projects in five States carried out to develop the framework for replication; Use of advanced techniques including *heliborne Transient Electromagnetic surveys* for faster and accurate mapping of aquifers.
- Managed Aquifer recharge; river bank filtration
- Identification of critically stressed blocks
- Model bill for ground water management

Dam Rehabilitation and Improvement Project (World Bank assisted programme)

- Project to establish dam safety discipline in 5 participating States and 2 dam owning agencies
- Rehabilitation of 223 dams to be taken up; 68 cases cleared for rehabilitation.
- Advanced materials and simulation techniques and guidelines being brought into the country to ensure dam safety.

Plan for comprehensive dam safety

- Provide for proper surveillance, inspection, operation and maintenance of all large dams.
- Central Government, State Governments and dam owners responsible to set up institutional mechanisms for ensuring safety of large dams and reporting the action taken.
- Provisions concerning periodical inspections, instrumentations and establishment of hydrological and seismological stations.
- Address the issues of initial filling, emergency action plan and disaster management.
- Comprehensive dam safety evaluation.

India Water Week-2015

- **Third edition of a week long policy dialogue and stakeholders consultation showcasing innovation through exhibition on “Water Management for Sustainable Development” during 13-17 January, 2015 at New Delhi.**

- **India Water Week devoted to issues in India and tropical countries to provide forum for:**
 - **Close interaction;**
 - **Better understanding of issues;**
 - **Identification of most rational approach to address the challenges;**
 - **Projecting the available knowhow in India and**
 - **Opportunity for technology transfer**

India Water Week-2015 (contd...)

- IWW-2015 to include 16 seminars, 13 panel discussion, 9 brain storming sessions, 6 case studies and 3 special events.**
- All aspects relating to water management for sustainable – agriculture, drinking water supply, urbanisation, industrial and energy development to be discussed amongst international audience.**
- Australia and Israel to be the main partner countries; Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Sikkim, etc. partner States for the event.**
- People's participation through concurrent mass awareness programme on water conservation – focus on 'Hamara Jila - Hamara Jal' at all district Head quarters.**

NATIONAL WATER POLICY (2012)

Adopted by **National Water Resources Council** comprising Chief Ministers of all States and all related Union Ministers

Pre-emptive needs - Safe Water for drinking and sanitation **High priority allocation** - other basic domestic needs (including needs of animals), achieving food security, supporting sustenance agriculture and minimum eco-system needs.

A portion of river flows be kept aside to meet ecological needs following the pattern of natural flow regime.

Adaptation strategies in view of climate change – compatible agricultural strategies, increasing storage, micro-irrigation techniques (drip/sprinkler methods)

A system to evolve benchmarks for water uses for different purposes, i.e., **water footprints**, and **water auditing** be developed to ensure efficient use of water.

Significant increase in budgetary allocation for XII Plan

- **For Central Sector Schemes, allocation has been augmented to Rs. 18118 crore in XII Plan as against Rs.3246 crore during XI Plan representing increase of 558%.**
- **For State Sector Schemes (AIBP, RRR, FMP etc.) allocation has been enhanced to Rs. 91, 435 crore in XII Plan from Rs.47,015 in XI Plan representing increase of 194%.**

Future Directions

- **Nirmal and Aviral Ganga**
- **Providing irrigation water to each field through creation of enhanced irrigation projects**
- **Conservation of water bodies and ground water**
- **Bridging the gap between irrigation potential created and utilized**
- **Incentivizing the States to undertake water sector reforms.**
- **National Aquifer Management Programme through community participation**
- **Use of latest technology for modernization of water resources and flood management**
- **Active participation of water users associations (WUAs).**
- **Water Sector Schemes to be rationalized for easier implementation; effective use of water, inclusiveness and sustainability.**
- **Comprehensive planning for Dam Safety.**

Thanks