

Roles, responsibilities and functions of core organizations/agencies involved in Ganga Rejuvenation

- 1. Organogram**
- 2. Description of Organizations/ Agencies**

Organogram of Agencies involved in Ganga River Basin Management (GRBM)

PLANNING	STEERING	IMPLEMENTING
<ul style="list-style-type: none"> • National Ganga Council 	<ul style="list-style-type: none"> ▪ NMCG 	<ul style="list-style-type: none"> ▪ NMCG
<ul style="list-style-type: none"> • Ministry of Jal Shakti / MoJS (Department of Water Resources, River Development and Ganga Rejuvenation & Department of Drinking Water and Sanitation / DDWS) 	<ul style="list-style-type: none"> ▪ Central Water Commission / CWC 	
<ul style="list-style-type: none"> • National Mission for Clean Ganga / NMCG 	<ul style="list-style-type: none"> ▪ Central Groundwater Board 	
<ul style="list-style-type: none"> • NITI Aayog 	<ul style="list-style-type: none"> • State Ganga Committee 	
<ul style="list-style-type: none"> • State Department of Water Resources 	<ul style="list-style-type: none"> • State Mission for Clean Ganga 	
	<ul style="list-style-type: none"> ▪ District Ganga Committee 	
ALIGNED AGENCIES		
<ul style="list-style-type: none"> • Ministry of Housing & Urban Development / MoHUA 	<ul style="list-style-type: none"> • Ganga Flood Control Commission / GFCC 	<ul style="list-style-type: none"> ▪ State Department of Irrigation
<ul style="list-style-type: none"> • Ministry of Agriculture & Farmers' Welfare / MoA&FW 	<ul style="list-style-type: none"> ▪ Empowered Task Force 	<ul style="list-style-type: none"> ▪ State Public Works Department / PWD
<ul style="list-style-type: none"> • Ministry of Panchayati Raj 	<ul style="list-style-type: none"> ▪ National Institute of Hydrology (NIH), Roorkee 	<ul style="list-style-type: none"> ▪ State Panchayati Raj Department
<ul style="list-style-type: none"> • Ministry of Environment, Forest and Climate Change / MoEFCC 	<ul style="list-style-type: none"> ▪ National Water Development Agency / NWDA 	<ul style="list-style-type: none"> ▪ State Department of Urban Development
<ul style="list-style-type: none"> • Central Pollution Control Board / CPCB 	<ul style="list-style-type: none"> ▪ cGANGA 	<ul style="list-style-type: none"> ▪ State Pollution Control Board
<ul style="list-style-type: none"> • Ganga Cell in CPCB 	<ul style="list-style-type: none"> ▪ Dispute Resolution Committee / DRC 	<ul style="list-style-type: none"> ▪ Parastatal (Jal Nigam) (Jal Jeevan Mission)
<ul style="list-style-type: none"> • National Water Mission (NWM) 	<ul style="list-style-type: none"> ▪ Water Dispute Tribunal 	<ul style="list-style-type: none"> ▪ State Forest Departments

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1. Colour Coding for Organogram

National level	State level	District level

2. Names of organizations/agencies in the organogram are hyperlinked to their respective descriptions in this document

Roles & responsibilities of Organizations/Agencies involved in GRBM

S. No.	Name of Organisations/ Institutions/ Agencies	Role and Responsibility
Core agencies involved in Ganga Rejuvenation		
PLANNING		
	Ministry of Jal Shakti (MoJS), Department of Water Resources, River Development & Ganga Rejuvenation¹	<p>The Ministry of Water Resources is responsible for laying down policy guidelines and programmes for the development and regulation of country's water resources. The Ministry has been allocated the following functions: -</p> <ul style="list-style-type: none"> • Overall planning, policy formulation, coordination and guidance in the water resources sector. • Technical guidance, scrutiny, clearance and monitoring of the irrigation, flood control and multi-purpose projects (major/medium). • General infrastructural, technical and research support for development. • Providing special Central Financial Assistance for specific projects and assistance in obtaining External Finance from World Bank and other agencies. • Overall policy formulation, planning and guidance in respect of Minor Irrigation and Command Area Development, administration and monitoring of the Centrally Sponsored

¹ <http://mowr.gov.in/about-us/functions> last accessed on January 6, 2020

Schemes and promotion of Participatory Irrigation Management.

- Overall planning for the development of Ground Water Resources, establishment of utilizable resources and formulation of policies for exploitation, overseeing of and support to State level activities in ground water development.
- Formulation of national water development perspective and the determination of the water balance of different basins/sub-basins for consideration of possibilities of inter-basin transfers.
- Coordination, mediation and facilitation in regard to the resolution of differences or disputes relating to Inter-State Rivers and in some instances overseeing of implementation of inter-state projects.
- Operation of the central network for flood forecasting and warning on inter-state rivers, provision of central assistance for some State Schemes in special cases and preparation of flood control master plans for rivers Ganga and Brahmaputra.
- Talks and negotiations with neighbouring countries, with regard to river waters, water resources development projects and the operation of the Indus Water Treaty.
- Ensure effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach to promote inter-sectorial co-ordination for comprehensive planning and management.

**Department of
Drinking Water &
Sanitation / DDWS²
(Under MoJS)**

- Rural Water Supply (subject to overall national perspective of water planning and coordination assigned to the Ministry of Water Resources), sewage, drainage and sanitation relating to rural areas; international cooperation and technical assistance in the field

² https://labour.gov.in/sites/default/files/rti_subclause1_0.pdf last accessed on January 6, 2020

National Council for Rejuvenation, Protection and Management of River Ganga Or National Ganga Council (NGC)³

- Public cooperation, including matters relating to voluntary agencies in so far as they relate to rural water supply, sewage, drainage and sanitation in rural areas.
- Co-ordination with respect to matters relating to drinking water supply and sanitation projects and issues which cover both urban and rural areas.
- Development of river basin management plan and regulation of activities aimed at prevention, control and abatement of pollution in the river Ganga to maintain its water quality, and to take such other measures relevant to river ecology and management in the Ganga Basin States.
- Maintenance of minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.
- Measures necessary for planning, financing and execution of programmes for abatement of pollution in the river Ganga including augmentation of sewerage infrastructure, catchment area treatment, protection of flood plains, creating public awareness and such other measures for promoting environmentally sustainable river conservation.
- Collection, analysis and dissemination of information relating to environmental pollution in the river Ganga.
- To maintain continuity of flow in the River Ganga without altering the natural seasonal variations.
- To regenerate and maintain natural vegetation in catchment area.
- To regenerate and conserve aquatic and riparian biodiversity in River Ganga Basin.
- Investigations and research regarding problems of environmental pollution and conservation of the river Ganga.

³ <https://nmcg.nic.in/ngrbaread.aspx> last accessed on January 6, 2020

- Creation of special purpose vehicles, as appropriate, for implementation of works vested with the Authority.
- Promotion of water conservation practices including recycling and reuse, rain water harvesting, and decentralised sewage treatment systems.
- Monitoring and review of the implementation of various programmes or activities taken up for prevention, control and abatement of pollution in the river Ganga, and
- Issuance of directions under section 5 of the Environment (Protection) Act 1986 (29 of 1986) for the purpose of exercising and performing all or any of the above functions and to take such other measures as the Authority deems necessary or expedient for achievement of its objectives.
- Formed after the dissolution of National Ganga River Basin Authority vide amendment on 7th October 2016.
- The Environment (Protection) Act, 1986 for the purpose of exercising and performing these functions and for achievement of its objectives.

4 National Mission for Clean Ganga (NMCG)⁴

- Implement the work programme of NGC.
- Implement the World Bank supported National Ganga River Basin Project.
- Coordinate and oversee the implementation of projects sanctioned by Government of India under NGC.
- Undertake any additional work or functions as may be assigned by MoJS in the area of conservation of river Ganga.
- Make rules and regulations for the conduct of the affairs of the NMCG and add or amend, vary or rescind them from time to time.

⁴ https://nmcg.nic.in/vision_key.aspx last accessed on January 6, 2020

- Accept or to provide any grant of money, loan securities or property of any kind and to undertake and accept the management of any endowment trust, fund or donation not inconsistent with the objectives of NMCG.
- Take all such action and to enter all such actions as may appear necessary or incidental for the achievements of the objectives of the NGC.

5 NITI AAYOG⁵

- To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States.
- To foster cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.
- To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
- To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
- To pay special attention to the sections of our society that may be at risk of not benefiting adequately from economic progress.
- To design strategic and long term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lessons learnt through monitoring and feedback will be used for making innovative improvements, including necessary mid-course corrections.
- To provide advice and encourage partnerships between key stakeholders and national and international like-minded Think tanks, as well as educational and policy research institutions.

⁵ <https://niti.gov.in/objectives-and-features> last accessed on January 6, 2020

- To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
- To offer a platform for resolution of inter-sectoral and inter- departmental issues in order to accelerate the implementation of the development agenda.
- To maintain a state-of-the-art Resource Centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.
- To actively monitor and evaluate the implementation of programmes and initiatives, including the identification of the needed resources so as to strengthen the probability of success and scope of delivery.
- To focus on technology up gradation and capacity building for implementation of programmes and initiatives.
- To undertake other activities as may be necessary in order to further the execution of the national development agenda, and the objectives mentioned above.

**Water Resources
Department
Government of Bihar⁶**

- Creation of irrigation potential and utilization of created potential through construction, maintenance and regulation of major and medium irrigation schemes.
- Restoration of lost irrigation potential of old irrigation schemes.
- Construction and maintenance of embankments, revetment in selected portions of river banks, land spurs and other necessary flood protection works.
- Draining of water logged areas.
- Implementation of participatory irrigation management.

⁶ <http://www.wrd.bih.nic.in/> last accessed on January 6, 2020

	<ul style="list-style-type: none"> • Providing optimum benefit of the major and medium irrigation projects to the beneficiaries, committees through administrative control over Command Area Development Agencies. • Intra State River Linking Schemes
<p>Irrigation & Water Resources Department, Government of Uttar Pradesh⁷</p>	<ul style="list-style-type: none"> • Development and construction of dams, canals and wells • Facilitate the state’s citizens with the sufficient facility of irrigation • Execute flood prevention works and strives to avoid horrors of flooding
<p>Urban Development Directorate, Uttarakhand</p>	<p>Roles and Responsibilities for River Basin Management:</p> <ul style="list-style-type: none"> • UDD has a crucial and significant role in planning and coordination with ULBs for planning and operationalisation of integrated and holistic citywide sanitation approaches in the urban areas to meet the goals of clean and litter free cities and river rejuvenation with a focus on- • Municipal Solid waste management- segregation, collection, transportation, processing and disposal of MSW • Address the issue of legacy waste to prevent leachate contamination and towards having clean and hygienic cities • Faecal sludge and Septage Management to address the safe collection and disposal of faecal sludge and septage from households dependent upon onsite sanitation systems in coordination with SPMG and executing agencies ULB/ Jal Sansthan/Jal Nigam to prevent pollution of environment and rivers. • Plastic Waste Management – Minimize plastic usage and promote recycling of plastic and

⁷ <http://idup.gov.in/en> last accessed on January 6, 2020

	other waste to fuel option to prevent plastic waste entering environment and water bodies.
Uttarakhand Irrigation Department⁸	<ul style="list-style-type: none"> • Investigation and Planning of Water Resources and Hydropower Development Projects • Design of WRD and Hydropower Projects • Hydraulic Modelling, Geotechnical Investigations and Material Testing, etc. • Fabrication of Hydromechanical Equipments Imparting Training to Engineers
Water resources Investigation and Development, Government of West Bengal⁹	<ul style="list-style-type: none"> • Provide irrigation services to the small and marginal farmers of West Bengal by implementing various types of minor irrigation schemes under different programmes utilizing both the ground water and surface water resources.
STEERING	
Central Water Commission (CWC)¹⁰	<p>Broad functions of CWC are as under:</p> <ul style="list-style-type: none"> • To collect, compile, publish and analyse the hydrological and hydro-meteorological data relating to major rivers in the country, consisting of rainfall, runoff and temperature, etc; • To collect, maintain and publish statistical data relating to water resources and its utilization including quality of water throughout India; • To provide flood forecasting services to all major flood prone inter-state river basins of India through a network of flood forecasting stations; • To carry out Techno-economic appraisal of Irrigation, flood control & multipurpose

⁸ <https://uttarakhandirrigation.com/about-us> last accessed on January 6, 2020

⁹ <https://www.developmentaid.org/#!/donors/view/143535/wridd-water-resources-development-investigation-department> last accessed on January 6, 2020

¹⁰ <http://www.cwc.gov.in/particulars-central-water-commission-its-functions-and-duties> last accessed on January 6, 2020

projects proposed by the State Governments;

- Monitoring of selected major and medium irrigation projects, to ensure the achievement of physical and financial targets.
- To undertake necessary surveys and investigations as and when so required, to prepare designs and schemes for the development of river valleys in respect of power generation, irrigation by gravity flow or lift, flood management and erosion control, anti-water logging measures, drainage and drinking water supply;
- To undertake Design Consultancy and Technical Studies for project planning and execution in the water resources sector;
- To undertake construction work of any river valley development scheme on behalf of the Government of India or State Government concerned;
- To advise the Government of India in respect of Water Resources Development, regarding rights and disputes between different States which affect any scheme for the conservation and utilization and any matter that may be referred to the Commission in connection with river valley development;
- To advise the Government of India and the concerned State Governments on the basin-wise development of water resources;
- To impart training to in-service engineers from Central and State Organizations in various aspects of water resource development;
- To initiate studies on socio-agro-economic and ecological aspects of irrigation projects for the sustained development of irrigation;
- To conduct and coordinate research on the various aspects of river valley development schemes such as flood management, irrigation, navigation, water power development, etc., and the connected structural and design features;

- To promote modern data collection techniques such as remote sensing technology for water resources development, flood forecasting and development of related computer software;
- To conduct studies on dam safety aspects for the existing dams and standardize related instrumentation for dam safety measures;
- To carry out morphological studies to assess river behaviour, bank erosion/coastal erosion problems and advise the Central and State Governments on all such matters;
- To promote and create mass awareness regarding the progress and achievements made by the country in the water resources development, use and conservation.

Central Ground Water Board (CGWB)¹¹

- Macro/micro-level ground water management studies.
- Exploratory drilling programme
- Monitoring of ground water levels and water quality
- Periodic assessment of replenish able ground water resources of the country
- Geophysical studies, remote sensing & GIS studies and ground water modelling studies
- Studies on various aspects of ground water sector such as ground water depletion, sea water ingress, ground water contamination, conjunctive use of surface & ground water, water balance etc
- Capacity building activities for personnel of its own as well as Central/State Government organizations engaged in various activities in ground water sector as well as mass awareness campaigns on the importance of water conservation and judicious ground water management.

¹¹ <http://cgwb.gov.in/aboutcgwb.html> last accessed on January 6, 2020

**State Ganga
Committee,
Uttarakhand¹²**

- Preparing plans for, and undertaking actions to implement activities to abate pollution in the river Ganga including augmentation of sewerage infrastructure and industrial pollution control, solid waste management and river front development.
- Undertaking all required activities to abate and prevent future pollution of the river Ganga, including promotion of water conservation practices including recycling and reuse, rain water harvesting, and decentralized sewage treatment systems in the State; and striving to maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.
- Creating public awareness and engagement; promoting public participation and such other measures to attain environmentally sustainable river basin management.
- On finalization of the Ganga River Basin Management Plan, to formulate State specific Sub-Plans. Implementation of the State River Basin Management Sub-Plan consistent with the Ganga River Basin Management Plan to maintain its water quality, to conserve the river ecology; and to ensure environmentally sustainable development within the Sub-Plan Areas within Uttarakhand State.
- Undertake all other activities as directed by SGC.
- To undertake, in the medium term, all activities including planning and implementation of activities such as improving and augmenting sewerage, sewage treatment, treatment of industrial effluents, solid waste management and comprehensive river front management so as to ensure that, by 2020 the overall target that no untreated urban wastewater and industrial effluent would flow into the main stem of the river Ganga is met by the State
- To implement the State part of the World Bank assisted "Namami Gange Program" and the

¹² <http://www.spmguttarakhand.uk.gov.in/pages/display/81-namami-gange> last accessed on January 6, 2020

	<p>respective State part of any other such projects including specific externally assisted projects as decided by the NMCG and the SGC</p> <ul style="list-style-type: none"> • To undertake any monitoring or review of the implementation of other programs or activities, including those finance by State Government Agencies, taken up for prevention, control and abatement of pollution in the Ganga Basin within the State; and support to the Department of Environment or the State Pollution Control Board
<p>State Mission for Clean Ganga, Uttar Pradesh¹³</p> <p>U.P. State Ganga River Conservation Authority (SGRCA)</p>	<ul style="list-style-type: none"> • To ensure State Government’s consent on the programmes and structures of National Ganga Council and obtain approval of State Government’s share in this programmes. • To generate public awareness by information, education and publicity derive regarding abatement of water pollution, control and treatment, environmental cleanliness in water of river Ganga. • To coordinate and implement the activities of networking of sewerage and sewage treatment structures, remedial steps for treatment of wet land area, river conservation works including using other measures, development of river banks (river front) etc. at State level. • To ensure appraisal of feasibility reports (FRs) and detail project reports (DPRs) for programmes under NGC. • To select the institutions for implementation of projects under NGC programme and the implementation of programmes / projects along with the institutions. • To manage funds related to land, acquisition for programmes/ projects and to get management of concerned contracts/ agreements. • To prepare suggestions and outlines of practicable alternatives to make these projects

¹³ <http://sgrca.org/static/Powers.aspx> last accessed on January 6, 2020

financially self-supporting by keeping financial discipline intact, for construction of River Pollution Control Schemes.

- The testing at the time of construction, commissioning, operation and maintenance right from preparation of projects and to ensure the treatment of sewage in accordance to standards prescribed by Government of India, U.P. Government, Central Pollution Control Board and U.P. Pollution Control Board.
- To get completion of all River Pollution Control related projects within stipulated time, cost and regular monitoring by keeping effective control on quality.
- To guide concerned Nagar Nigam for its Capacity Building for successful running and maintenance of their projects and to guide for running and maintenance of above projects. After consultation with concerned Nagar Nigam suggest practicable alternatives to make these projects financially self-supporting for meeting out the expenditure incurred on running and maintenance, including long term declaration of fixation of user charges for running and maintenance of such projects
- Selection of private institutions for special purpose vehicle (S.P.V's.) and thereafter formation of S.P.V's.
- To propose works for River Front Development Works on river banks also keeping in view the improvement in the quality for river water after completion of River Pollution Control Projects, so that the local citizens and tourist visiting the city are attracted towards river banks and to suggest necessary methods for operation and maintenance of such projects to Nagar Nigams for utilization of Nagar Nigam's income generated from tourism, hoardings and other commercial resources.
- To suggest concerned Nagar Nigams in the activity for charging of necessary amount required for operation and maintenance for 30 years through the firm responsible for the

	<p>completion of projects with quality and their successful operation as user charges.</p> <ul style="list-style-type: none"> • To include participation of all stake holders in concern works for achievement of above objects and encourage all participants for increase in their share. • To get convergence of programmes concerned to other Departments / National Institutions for achievement of above objects. • To assist State Mission for Clean Ganga-Uttar Pradesh / State Government for financial resource mobilization from National / International institutions for above works. • To execute capacity building activities along with training activities; and • To identify issues related to above objects.
<p style="text-align: center;">District Ganga Committee (in each of the Ganga Bank districts)¹⁴</p>	<ul style="list-style-type: none"> • Each District Ganga Committee shall discharge functions and exercise powers for rejuvenation, protection, restoration and rehabilitation of River Ganga and its tributaries in each specified District. • Each District Ganga Committee shall have the following powers and functions in relation to River Ganga and its tributaries abutting in the area in specified District, namely:- <ul style="list-style-type: none"> (a) identifying activities which may be threats in the area of specified District abutting the River Ganga for protection of River Ganga and its tributaries or its River bed and making a plan for remedial action and take remedial action in respect thereof; (b) taking remedial action at its own end for protection of River Ganga and its tributaries or its River bed abutting in the specified District (excluding enforcement of the provisions of this Order) (c) In the event of its inability to take remedial action, reporting (electronically as well as

¹⁴ https://nmcg.nic.in/about_nmcg.aspx last accessed on January 7, 2020

by sending written communication in hard copy) to the National Mission for Clean Ganga and concerned State Government, the State Ganga Committee, as the case may be, for issue of direction for protection of River Ganga and to formulate appropriate management or remedial actions.

(d) Taking suitable administrative and other measures, to give effect to the provisions of this Order so as to prevent the environmental pollution in the River Ganga and its tributaries, not being inconsistent with the provisions of this Order, or any law for the time being in force.

- In case, the District Ganga Committee is of the opinion that any contravention has been made of any other law for the time being in force or in respect of provisions of this Order, it shall take appropriate action in accordance with the law for the time being in force
- The manner of removing the matter from River Ganga and disposing it off in such a manner as it may specify, as also, for carrying out such operations as is considered appropriate for mitigation or removal of any pollution caused by such matter;
- Issuing directions restraining or prohibiting any person concerned from discharging any poisonous, noxious or polluting matter in the River Ganga;
- Undertaking any additional work or functions as may be necessary to address such emergency

ALIGNED AGENCIES

**National Institute of
Hydrology (NIH),
Roorkee¹⁵**

- Develop new techniques, procedures, software packages, field instrumentation, etc. for hydrological studies.
- Study scenarios of water resource availability under varying Hydrological, climatic, sociocultural conditions through modelling techniques.
- Assess impact of climate change on water resources and suggest measures for mitigation, adaptation and resilience.
- Propagate applications of emerging techniques for water resources development and management.
- Provide cost-effective R&D solutions to need-based water related problems.
- Provide scientific advice to the various stakeholders on water related issues.
- Empower community through capacity building and awareness on water resources development and conservation.

¹⁵ <http://nihroorkee.gov.in/about-nih/about-us/aim-mission> last accessed on January 6, 2020

Ganga Flood Control Commission (GFCC)¹⁶	Ganga Flood Control Commission carries out several activities as outlined below :
National Water Mission¹⁷	<ul style="list-style-type: none"> • Preparation and updating of comprehensive plan of flood management. • Techno-Economic Appraisal of Flood Management Schemes. • Assessment of adequacy of waterways under road and rail bridges. • Programming of implementation of flood management works. • Framing of guidelines for quality control and maintenance. • Monitoring of all flood management schemes funded by Central Govt. and important flood management schemes funded by State Government. • Documentation and Dissemination of recommendations of special studies. • Performance evaluation of completed Flood Management Schemes.
Central Pollution Control Board (CPCB)¹⁸	<ul style="list-style-type: none"> • Comprehensive water data base in public domain and assessment of the impact of climate change on water resource; • Promotion of citizen and state actions for water conservation, augmentation and preservation; • Focused attention to vulnerable areas including over-exploited areas; • Increasing water use efficiency by 20%; and • Promotion of basin level integrated water resources management.
	<ul style="list-style-type: none"> • Advise the Central Government on any matter concerning prevention and control of water and air pollution and improvement of the quality of air. • Plan and cause to be executed a nation-wide program for the prevention, control or

¹⁶ <http://gfcc.bih.nic.in/activity.htm> last accessed on January 6, 2020

¹⁷ <http://nwm.gov.in/?q=functions> last accessed on January 6, 2020

abatement of water and air pollution;

- Co-ordinate the activities of the State Board and resolve disputes among them;
- Provide technical assistance and guidance to the State Boards, carry out and sponsor investigation and research relating to problems of water and air pollution, and for their prevention, control or abatement;
- Plan and organise training of persons engaged in programme on the prevention, control or abatement of water and air pollution;
- Organise through mass media, a comprehensive mass awareness programme on the prevention, control or abatement of water and air pollution;
- Collect, compile and publish technical and statistical data relating to water and air pollution and the measures devised for their effective prevention, control or abatement;
- Prepare manuals, codes and guidelines relating to treatment and disposal of sewage and trade effluents as well as for stack gas cleaning devices, stacks and ducts;
- Disseminate information in respect of matters relating to water and air pollution and their prevention and control;
- Lay down, modify or annul, in consultation with the State Governments concerned, the standards for stream or well, and lay down standards for the quality of air; and
- Perform such other function as may be prescribed by the Government of India.

**Ganga Cell under
CPCB¹⁹**

- Waste water disposal from the industries into river Ganga (State wise)
- Waste water disposal from cities into River Ganga (state wise)
- Status of STPs operating on the bank of River Ganga monitored by CPCB

¹⁸ <https://cpcb.nic.in/functions/> last accessed on January 6, 2020

¹⁹ <https://cpcb.nic.in/ngrba/activities.php> last accessed on January 6, 2020

	<ul style="list-style-type: none"> • Status of industries inspected by CPCB under NMCG • Polluted River stretches in India -Status & Criteria • Ganga water quality Trend
<p>Ministry of Environment, Forest and Climate Change (MoEFCC)²⁰</p>	<ul style="list-style-type: none"> • Planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry policies and programmes. • Implementation of policies and programmes relating to conservation of the country's natural resources including its lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals, and the prevention and abatement of pollution. • Clean Technologies • Conservation and survey. • Control of pollution. • Environment education. • Environmental Education, Awareness AND Training (EEAT) • Environmental Health (EH) • Environmental Impact Assessment (EIA) • Environmental Information (EI) • Hazardous Substances Management (HSM) • Wetlands • Research in environment.
<p>Ground Water Department</p>	<ul style="list-style-type: none"> • Ground water level monitoring in rural and urban areas. • Block-wise estimation of ground water resources. • Survey and field study of ground water wealth through scientific techniques.

²⁰ <https://landportal.org/organization/ministry-environment-forest-and-climate-change-moefcc-government-india> last accessed on January 6, 2020

<p>Government of Uttar Pradesh²¹</p>	<ul style="list-style-type: none"> • To implement ground water recharge programme on a large scale in an integrated manner and to bring over-exploited/critical blocks into safe category in a time bound manner. • Editing site selection and ground water survey for minor irrigation works through geophysical survey. • Work of ground water mapping through GIS technology. • Aquifer mapping / groundwater mapping work. • To give priority to the river basin/watershed approach in ground water management planning and conservation. • Technical coordination, monitoring and technical advice of ground water exploitation, ground water conservation, storage and recharge schemes. • Preparation and technical guidance of recharge to be consulted. • Construction of tube wells. • Construction of rainwater harvesting / recharging system.
<p>National River Conservation Directorate (NRCD)²²</p>	<ul style="list-style-type: none"> • Interception and diversion works/ laying of sewerage systems to capture raw sewage flowing into the rivers through open drains and diverting them for treatment; • Setting up of Sewage Treatment Plants (STPs) for treating the diverted sewage; • Construction of Low Cost Sanitation Toilets to prevent open defecation on river banks; • Construction of Electric Crematoria and Improved Wood Crematoria to conserve the use of wood; • River Front Development works, such as improvement of bathing ghats. • Public participation & awareness and capacity building, etc.

²¹ http://upgwd.gov.in/StaticPages/Mukhya_Karya.aspx last accessed on January 6, 2020

²² <https://nrcd.nic.in/writereaddata/FileUpload/23617950NRCP%20Backgrpund.pdf> last accessed on January 6, 2020

**National Water
Development Agency
(NWDA)²³**

- To carry out detailed surveys and investigations of possible reservoir sites and interconnecting links in order to establish feasibility of the proposal of Peninsular Rivers Development Component and Himalayan Rivers Development Component.
- To carry out detailed survey about the quantum of water in various Peninsular River Systems and Himalayan River Systems
- To prepare feasibility report of the various components of the scheme relating to Peninsular Rivers Development and Himalayan Rivers Development.
- To carry out surveys & investigations work and prepare detailed Project Report of river link proposals.
- To undertake/construct/repair/renovate / rehabilitate / implement the projects either of its own or through an appointed agency /organization/PSU or Company and the projects forming part of interlinking of rivers.

**Centre for Ganga
River Basin
Management and
Studies (cGanga)²⁴**

- cGanga is a Centre of Excellence for data collection, the creation and dissemination of knowledge and information for the sustainable development of Ganga River Basin.
- The Centre acts in the capacity of a comprehensive think-tank to the National Mission for Clean Ganga (NMCG) and constitutes of a consortium of 7 IITs. Nature of work includes science, technology, research, innovation, economics, finance and investment related aspects.
- Primary and secondary data collection through field work and information gathering from government and non-government sources.
- Preparation of detailed mission plans for identified missions
- Interface with finance, legal and economics industry to develop robust techno-commercial

²³ <http://nwda.gov.in/content/innerpage/functions.php> last accessed on January 6, 2020

²⁴ <http://cganga.org/wp-content/uploads/sites/3/2018/09/Charter.pdf> last accessed on January 6, 2020

models.

- To ensure maintenance of environmental flow in all rivers and tributaries of Ganga river system to fulfil their geological, ecological, socio-economic and cultural functions.
- Create specialist expertise in area of river health that can develop as an export industry.
- Water quality in all rivers and tributaries of Ganga river system shall be consistent with their governing geological, ecological, socio-economic and cultural functions.
- Adopt select villages in Ganga River Basin and demonstrate management of water supply, sanitation, drainage, landscape, water bodies, livelihood etc. in a holistic way.
- All existing, ongoing and planned anthropogenic activities in the basin shall be reviewed or scrutinised in a transparent, inclusive manner (with consensus of all affected people and stakeholders) for the overall health of the basin.

**Ministry of Housing
and Urban Affairs**

(MoHUA)²⁵

- Planning with regard to sewage, drainage and sanitation relating to urban areas.
- To establish and maintain linkages from allocated water resources.
- Water supply, subject to overall national perspective of water planning and coordination assigned to the Ministry of Jal Shakti.
- To work in the river basin with three major objectives - make villages Open Defecation Free, implement Liquid Waste Treatment and Solid Waste Management; 97 towns within 5 kilometres of River Ganga have been identified for intervention.
- To ensure adequate arrangements for tapping of solid waste entering into the river through drains, disposal of the collected waste from ghats, river banks etc., door-to-door waste collection.
- To plan for similar interventions in important towns along rivers Yamuna, Kali, Ramganga, Hindon etc. that join into river Ganga; to minimise increase in concentration of

²⁵ <https://pib.gov.in/PressReleasePage.aspx?PRID=1538185> last accessed on January 6, 2020

<p>Ministry of Agriculture and Farmer's Welfare (MoA&FW)²⁶</p>	<p>pollutants.</p> <ul style="list-style-type: none"> • An MoU for effective and efficient implementation of various projects of Namami Gange Programme has been signed between MoA&FW and Ministry of Water Resources. • As per the terms of MoU, the MoA&FW is to develop organic farming in the villages along Ganga with each Gram Panchayat representing a single cluster, promote organic farming through awareness programmes, self-help groups, mobile apps etc. • To create awareness about balanced use of chemicals, fertilizers and pesticides • To promote micro irrigation for water conservation in Ganga Basin. • To encourage livelihood opportunities and natural farming, based on animal husbandry, along Ganga.
<p>Ministry of Panchayati Raj²⁷</p>	<ul style="list-style-type: none"> • To attain decentralized and participatory local self-government through Panchayati Raj Institutions (PRIs) • Empowerment, enablement and accountability of PRIs to ensure inclusive development with social justice, and efficient delivery of services • To coordinate with and equip the local PRIs along the river basin for better and sustainable outcomes of the Namami Gange Programme
<p>Empowered Task Force²⁸</p>	<ul style="list-style-type: none"> • Hold a meeting every three months to coordinate with different ministries, which were tasked with specific objectives under Namami Gange. • To develop an action plan with specific activities, milestones, and timeliness for achievement of the objective of rejuvenation and protection of River Ganga.

²⁶ <https://pib.gov.in/newsite/PrintRelease.aspx?relid=149849> last accessed on January 6, 2020

²⁷ <https://www.panchayat.gov.in/web/guest/about-us> last accessed on January 6, 2020

²⁸ <https://pib.gov.in/newsite/PrintRelease.aspx?relid=150983> last accessed on January 6, 2020

	<ul style="list-style-type: none"> • To develop a mechanism for monitoring implementation of its action plans. • To ensure coordination amongst the Ministries and Departments and State Governments concerned for implementation of its action plans in a time bound manner.
Dispute Resolution Committee (DRC)²⁹	<ul style="list-style-type: none"> • In the Inter-State River Water Disputes (Amendment) Bill 2019, a two tier dispute resolution mechanism; first the dispute is referred to DRC which is headed by Secretary level officer of the Central Government and comprises of experts from relevant fields. • Maximum time permitted is one and half years
Water Dispute Tribunal³⁰	<ul style="list-style-type: none"> • In case DRC is unable to resolve the dispute, it is referred to a centralised tribunal with multiple benches. • The decision of tribunal is final and binding on the states and shall have the same force as an order of the Supreme Court. • Maximum time permitted is three years, another one and half years for reconsideration.
State Pollution Control Board³¹	<ul style="list-style-type: none"> • Implementation of notified standards for discharge of environmental pollutants in river Ganga prescribed by technical institutions and CPCB. Ensure follow up action of the same. • Strict action for incompliance of effluent and industrial waste standards. • Ensure segregation of toxic elements such as chrome liquor from industrial effluent and separate treatment of the same in Chrome Recovery Plants. • Information dissemination to local bodies in the state, develop methods for sewage disposal and adhere to the guidelines by CPCB. • The different actions of the SPCBs include the following: <ul style="list-style-type: none"> ✓ Consent Management ✓ Pollution control in 17 categories of highly polluting industries

²⁹ <https://www.indiatoday.in/india/story/interstate-river-water-disputes-bill-2019-1575531-2019-07-31> last accessed on January 6, 2020

³⁰ <https://www.indiatoday.in/india/story/interstate-river-water-disputes-bill-2019-1575531-2019-07-31> last accessed on January 6, 2020

³¹ <https://cpcb.nic.in/faq.php> last accessed on January 6, 2020

- ✓ Pollution control from industries discharging waste water into rivers and lakes
- ✓ Inventorization of pollution industries in the State and ensuring their compliance to the Pollution control norms
- ✓ Restoration of environmental quality in critically polluted areas
- ✓ Monitoring of water and ambient air quality in the States
- ✓ Hazardous waste management
- ✓ Bio-medical and Municipal Solid Wastes Management
- ✓ National Ambient Air Monitoring Programme (NAMP)
- ✓ National Water Monitoring Programme (NWMP)

**State Forest
Department
(Uttarakhand, Uttar
Pradesh, Bihar,
Jharkhand and West
Bengal)³²**

- Extensive plantations in natural, agriculture, and urban landscapes besides conservation interventions such as soil and water conservation, riparian wildlife management, wetland management, and supporting activities such as policy and law interventions, concurrent research, monitoring and evaluation, and mass awareness campaigns.
- To set up forests in the catchment area of the river to maintain the lively relationship between forests and water, prevent soil erosion, recharge water and also increase the level of groundwater
- The NMCG along with Forest Research Institute, Dehradun has identified an area of 134,000 hectares in which plantation is to be carried out. The plantation is specific in nature and different, specific species have been identified according to the nature of soil in each state.
- Plantation on 5 kms of both sides of river Ganga and 2 kms each side of the tributaries.
- As per guidelines of soil and moisture conservation in forest areas, State Forest

³² <https://swachhindia.ndtv.com/ganga-rejuvenation-uttarakhand-dehradun-plantation-drive-conserve-river-27025/> last accessed on January 7, 2020

	<p>Departments are to construct control trenches, small check dams and side walls at specified sites so that maximum rainwater is utilised before flowing into the river.</p> <ul style="list-style-type: none"> • Officials of the department are to interact with farmers and villagers encouraging them to plant trees; distribute free saplings for plantation.
<p>Jal Jeevan Mission³³</p>	<ul style="list-style-type: none"> • In-village water supply (PWS) infrastructure for tap water connection to every household with service level at the rate of 55 litres per capita per day (lpcd).; • Reliable drinking water source development/ augmentation of existing sources; • Transfer of water (multi-village scheme; where quantity & quality issues are there in the local water sources); • Technological intervention for treatment to make water potable (where water quality is an issue, but quantity is sufficient); • Retrofitting of completed and ongoing piped water supply schemes to provide FHTC and raise the service level; • Grey water management; • Capacity building of various stakeholders and support activities to facilitate the implementation.

³³ https://jalshakti-ddws.gov.in/sites/default/files/JJM_note.pdf last accessed on January 6, 2020