ORGANIZATIONAL AND INSTITUTIONAL FRAMEWORK FOR IRBPM

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New Delhi

1.0 Water Resources Scenario in India and the challenges ahead

A scarce natural resource, water is fundamental to life, livelihood, food security and sustainable development. India has more than 18 % of the world's population, but has only 4% of world's renewable water resources and 2.4% of world's land area. There are further limits on utilizable quantities of water owing to uneven distribution over time and space. In addition, there are challenges of frequent floods and droughts in one or the other part of the country. With a growing population and rising needs of a fast developing nation as well as the given indications of the impact of climate change, availability of utilizable water will be under further strain in future with the possibility of deepening water conflicts among different user groups. Low consciousness about the scarcity of water and its life sustaining and economic value results in its mismanagement, wastage, and inefficient use, as also pollution and reduction of flows below minimum ecological needs. In addition, there are inequities in distribution and lack of a unified perspective in planning, management and use of water resources.

In the above backdrop, the National Water Policy – 2012 (NWP) has been adopted to take cognizance of the existing situation, to propose a framework for creation of a system of laws and institutions and for a plan of action with a unified national perspective.

The challenges facing the water resources sector in the country is multi-faceted. Some of them as highlighted in NWP-2012 are:

- Large parts of India have already become water stressed. Rapid growth in demand for water due to population growth, urbanization and changing lifestyle pose serious challenges to water security

- Issues related to water governance have not been addressed adequately. Mismanagement of water resources has led to a critical situation in many parts of the country.

- There is wide temporal and spatial variation in availability of water, which may increase substantially due to a combination of climate change, causing deepening of water crisis and incidences of water related disasters, i.e., floods, increased erosion and increased frequency of droughts, etc.

- Access to safe water for drinking and other domestic needs still continues to be a problem in many areas. Skewed availability of water between different regions and different people in the same region and also the intermittent and unreliable water supply system has the potential of causing social unrest.

- Groundwater, though part of hydrological cycle and a community resource, is still perceived as an individual property and is exploited inequitably and without any consideration to its sustainability leading to its over-exploitation in several areas.

- Water resources projects, though multi-disciplinary with multiple stakeholders, are being planned and implemented in a fragmented manner without giving due consideration to optimum utilization, environment sustainability and holistic benefit to the people

- Inter-regional, inter-State, intra-State, as also inter-sectoral disputes in sharing of water, strain relationships and hamper the optimal utilization of water through scientific planning on basin/sub-basin basis.

- Grossly inadequate maintenance of existing irrigation infrastructure has resulted in wastage and under-utilization of available resources. There is a widening gap between irrigation potential created and utilized.

- Natural water bodies and drainage channels are being encroached upon, and diverted for other purposes. Groundwater recharge zones are often blocked.

- Growing pollution of water sources, especially through industrial effluents, is affecting the availability of safe water besides causing environmental and health hazards.

- Access to water for sanitation and hygiene is an even more serious problem. Inadequate sanitation and lack of sewage treatment are polluting the water sources.

- Low consciousness about the overall scarcity and economic value of water results in its wastage and inefficient use.

- The lack of adequate trained personnel for scientific planning, utilizing modern techniques and analytical capabilities incorporating information technology constrains good water management.

- A holistic and inter-disciplinary approach at water related problems is missing.

The NWP-2012 has enumerated the guiding principles on various aspects of water resources development and management and some of the provisions related to legislative / executive actions for appropriate institutional framework are:

Para 2.3

There is a need for comprehensive legislation for optimum development of inter-State rivers and river valleys to facilitate inter-State coordination ensuring scientific planning of land and water resources taking basin/sub-basin as unit with unified perspectives of water in all its forms (including precipitation, soil moisture, ground and surface water) and ensuring holistic and balanced development of both the catchment and the command areas. Such legislation needs, inter alia, to deal with and enable establishment of basin authorities, comprising party States, with appropriate powers to plan, manage and regulate utilization of water resource in the basins.

Para 12.4

Integrated Water Resources Management (IWRM) taking river basin / sub-basin as a unit should be the main principle for planning, development and management of water resources. The departments / organizations at Centre / State Governments levels should be restructured and made multi-disciplinary accordingly.

2.0 Integrated Water Resources Management (IWRM)

2.1 Concept of IWRM

Under the most recent paradigm, IWRM can be defined as a process which promotes coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. IWRM is therefore in essence, a conceptual framework that river basin managers should strive forward. IWRM essentially offers a normative vision of what water management should be and provides a useful framework to provide directions of where water management can and should be improved.

Unlike traditional water management that is supply driven, the integrated framework is broader in that it involves both supply and demand side responses alongwith a strong emphasis of stakeholder participation. It encourages the integration of water management across sectors, and places the responsibility of providing an enabling environment. The concept of IWRM is as broad as one defines it, and could consist of integrating water and land use practices; coastal and freshwater use; green and blue water; ground and surface water; water quantity and quality; and upstream and downstream uses.

The main arguments in favour of an integrated water management framework are the interrelationship between land and water use and the large seasonal and annual variations in water availability in most tropical and subtropical regions of the world. Such variability increases the demand for infrastructure development and the need to manage water demand and supply. In the future, the increased variability in precipitation and temperature as a consequence of global climate change may further affect the demand and supply of water resources, and an integrated framework that includes demand and supply side measures alongwith stakeholder participation may be one of the ways to address the challenge.

The traditional approach to water management disaggregates the various uses of water resources, and manages each use independently of the other. Hence, water in a basin that is used for irrigation, hydropower, domestic purposes, or industry is managed separately by the irrigation department, the electricity department, the municipalities or the industries department. This approach is largely supply driven as each department aims to meet the demands of the sectors without focusing on the demand management aspects of water resources use leading to fragmented and uncoordinated development and management of the resource. Further, the environmental and ecological aspects of the water resource also need to be adequately represented and need to be given due priority because of their importance in sustaining water resources.

The IWRM framework is therefore a response to the competing demands for water resource across sectors and in response to the declining water quality, and ecological and equity concerns within a river basin. In a nutshell, IWRM therefore means that all the different uses of water resources are considered together. Water allocations and management decisions consider the effects of each use on the others. They are able to take account of overall social and economic goals, including the achievement of sustainable development. This also means ensuring coherent policy making related to all sectors.

The basic IWRM concept can be extended to incorporate participatory decision-making. Different user groups (farmers, communities, environmentalists) can influence strategies for water resource development and management. That brings additional benefits, as informed

users apply local self-regulation in relation to issues such as water conservation and catchment protection far more effectively than central regulation and surveillance can achieve.

Hence in accordance with the principle of demand-driven development, a River Basin Organisation (RBO) needs to be established in response to a perceived and expressed demand for a concerted effort in water management that is expressed by multiple users.

2.2 River Basin Organisations (RBO)

RBOs support the integrated and physical and technical management of water resources, and, if developed adequately, can respond to the growing competition for water among agricultural, industrial, urban, and in-stream uses within the basins. RBOs, can help recognize the environmental impacts of water uses and water development at the basin scale. Their importance with regard to future uncertainties of water supply and demand can be seen in their being described as an adaptation measure to climate change in the Third Inter-Governmental Panel on Climate Change.

Without integrated river basin management through the RBOs, there would be limited collaboration between departments related to water (irrigation, agriculture, industries and environment). Water related data and information would remain fragmented, consequently reducing the possibilities to conserve water. Given the limited possibilities to increase water supply or decrease demand, water resources would continue to move to those uses where the value of water is highest (e,g to industry rather than to irrigated agriculture) and water would continue to be allocated in an ad-hoc, suboptimal manner (from a social and environmental point of view). Broadly defined, RBOs offer a mechanism to achieve such integrated management by providing the framework for water allocation following efficiency and equity principles.

Majority of the current river basin management organizations are for specific functions, such as flood planning or reservoir construction, water allocation, water pollution mitigation, etc. The adopted approach is demand oriented and focuses on and focuses on resolving specific problems in the river basin. The main functions of RBOs are given in the table below:

Function	Definition
Plan	Formulation of medium to long term plans for managing and developing water resources in the basin
Construct facilities	Activities executed for the design and construction of hydraulic infrastructure
Maintain facilities	Activities executed to maintain the serviceability of the hydraulic infrastructure in the basin
Allocate water	Mechanisms and criteria by which water is apportioned am0ng different use sectors, including the environment
Distribute water	Activities executed to ensure that allocated water reaches its point of use
Monitor and enforce	Activities executed to monitor water pollution and salinity levels and

water quality	ensure that they remain at or below accepted standards
Preparedness against water disasters	Flood and drought warning, prevention of floods, and development of emergency works, drought preparedness and coping mechanisms
Resolve conflicts	Provision of space or mechanisms for negotiation and litigation
Protect ecosystem	Priorities and actions to protect ecosystems, including awareness campaigns
Coordinate	Harmonization of policies and actions undertaken in the basin by state and nonstate actors relevant to land and water management.

Beyond functional cooperation there is integrated approach to river basin management that focusing on the river basin as a whole and try to resolve the existing hydrologic, ecologic and socioeconomic problems through holistic policies. The integrated approach is widely endorsed and promoted by international organizations as well as by NGOs and scientists though there are few examples of truly integrated RBOs.

The type of RBO for a basin is a function of the political and institutional situation and overall objective of the organization. For instance, an authority is usually given independent powers and is responsible for infrastructure planning. Examples of this include the Tennessee valley Authority in US and Damodar valley Authority in India. However, the description of the different types of RBOs overlap significantly. While the type of organization is important, it is even more important to match the structure that supports basin-level management with the objectives that the organization aims to achieve. A table showing the various types of RBOs are given in the table below:

Type	Explanation
Advisory Committee	• A formalized or quasi formal organization in which individuals take responsibility for action planning and provide advice • Governments entrust strategic planning to such organizations • Usually have no or limited legal jurisdiction
Authority	• An organization which makes planning decisions at a central or regional government level • Authorities are founded on democratic principles and a framework of law to which all relevant individuals and institutions are subject in a democratic setting
Association	• Similar to an Advisory Committee • Organization of like minded individuals and groups with common interest • Provide advice, stimulate basin awareness, education and ownership of basin natural resources management issues, educational functions and information exchange

Commission	• An organization which is delegated to consider natural resources management matters and or takes action on those matters • Basin Commission's powers may include advisory / education roles, monitoring roles, undertaking works, fulfilling goals of a specific Government's charter or an international agreement • Commissions may also have regulatory powers
Corporation	• A legal entity created by legislation which permits a group of people as shareholders (for-profit companies) or members (nonprofit companies) to create an organization, which can then focus on pursuing set objectives, and empowered with legal rights which are usually only reserved for individuals such as to sue and be sued, own property, hire employees, or loan and borrow money
Council	• A formal group of experts, government ministers, policy makers, nongovernment organizations, etc brought together on a regular basis to debate on matters within their sphere of basin management expertise, and with advisory powers to government. • A council is contrasted with a commission which, although also a body of experts, is typically given regulatory powers in addition to a role as advisor to the Government.
Federation	• A collaboration of organizations or departments within one Government or between State and national governments to establish and undertake actions for river basin management • Collaboration is expressed in terms of framework directives, cost-sharing arrangements, joint statements of intent, partnerships, joint programs and agreed policy
Tribunal	• A tribunal acts as a special court outside the civil and criminal judicial systems that examines special problems and makes judgments, such as a water tribunal which resolves disputes between water users • Very few such entities exist purely for river basin management purposes but rather for special purposes • Tribunals have formalized procedures and quasi-judicial powers where stakeholders can formally participate through hearings
Trust	• Trust is a legal device used to set aside money or property of one person for the benefit of one or more persons or organizations • It undertakes river basin works and develops and implements a strategic plan • Its mandate is to be the river basin "advocate" • It coordinates local programs through memoranda of understanding or other agreements • It raises local funds for works and programs

A table showing some selected international RBOs alongwith their functions is given below:

Name of the RBO	Function
Tennessee Valley Authority	Planning and Construction
Mekong River Commission	Data collection and sharing, communication, planning
French River Basins	River Basin Committees set objectives for basin management and draft the SDAGE (Master Plan for the development and management of water resources); water agencies collect and allocate funds for water projects
Rhine River Commission	Collaboration among several countries for the protection of water quality
Jasa Tirta I Public Corporation	To conduct part (based on financial ability) of tasks and responsibilities in water resources management for social, public welfare and public safety (PSO) in the Brantas River Basin (40 rivers) and Bengawan Solo River Basin (25 rivers) To conduct water related business (as financial source to conduct tasks and responsibilities in WRM) and optimize the utilization of the Corporate's resources and assets

In India, river basin management Boards / Authorities / Commission constituted from time to time are mainly for carrying out specific purpose. Indian basin organizations have been established mainly through:

(i) Specific Acts – e.g Damodar Valley Corporation, Brahmaputra Board

(ii) Tribunals, as a result of existing interstates river water disputes – e.g Narmada Control Authority

(iii) Notifications - e.g Tungabhadra Board

(iv) Memorandum of Understanding between States – e.g Upper Yamuna River Board

A selected list of basin organizations constituted in India from time to time including their mode of constitution and role is given in the table below:

Basin Organisation	Mode of Constitution	Role
The Damodar Valley Corporation	Damodar Valley Corporation Act, 1948	Promotion and operation of river system for irrigation, water supply, drainage, hydro-electric and thermal power generation, flood control, navigation, afforestation, control of soil erosion, public health, agricultural, industrial, economic and general well being of people.

Tungabhadra Board	Notification by the Government of India in exercise of the powers vested under Section 66(4) of Andhra Pradesh State Act	Completion of the Tungabhadra project, maintenance and operation
Bhakra Beas Management Board	Constituted by the Government of India under Section 79 of Punjab Reorganisation Act, 1966	Administration, maintenance and operation of Bhakra-Nangal project
Cauvery River Authority	River Cauvery Water Disputes Tribunal	Implementation of the Cauvery Water Disputes Tribunal
Ganga Flood Control Commission	Government of India resolution as secretariat and executive wing of Ganga Flood Control Board	To deal with floods and its management in Ganga Basin States
Bansagar Control Board	Government of India resolution in accordance with an agreement between Govts of MP, UP and Bihar	Ensuring efficient, economical and early execution of Bansagar dam and connected works
Brahmaputra Board	Brahmaputra Board Act, 1980	Master plan for the control of floods in the Brahmaputra Valley giving due regard to the overall development and utilisation of the water resources of the valley for irrigation, hydropower, navigation and other beneficial purposes.
Narmada Control Authority	Narmada Water Disputes Tribunal	Proper implementation of the decisions of the Tribunal
Upper Yamuna River Board	MoU signed by the Chief Ministers of the riparian States (H.P, Haryana, UP, Rajasthan and Delhi)	Distribution of the available flows among co-basin states within the overall framework of the MoU
Betwa River Board	Constituted under the Betwa River Board Act, 1976	Efficient, economical and early execution of Rajghat dam project

Sone River Commission (closed)	Set up by the Government of India in 1989 in pursuance of the agreement of Bansagar Project between the states of Bihar, Madhya Pradesh and Uttar Pradesh.	Compiling and analysing hydrological and hydrometeorological data, consumptive use data and to carryout investigations and studies for the preparation of basin and regional plans for optimum use of Sone river waters for irrigation and multi purpose uses

3.0 Constitutional Provisions and existing laws in India with respect to water

India, a union of states, is a sovereign, secular democratic republic with a parliamentary form of government. The territory of India comprises of territories of the States and the union territories. The Indian polity is governed in terms of the constitution. The Indian constitution lays down the legislative and functional jurisdiction of the union, state and local governments in respect of water. Indian Constitution provides power to the states to develop the water resources within their boundaries subject to parliament empowering union government to regulate and develop inter-state rivers to the extent to which such regulations and development is declared by the parliament by law to be expedient in the public interest.

All the major river basins, covering about 78% of the geographical area of the country and some among the forty six medium river basins are inter-state having their drainage area lying in more than one state or union territory. Although the Constitution does provide for the regulation and development of inter-state rivers and river valleys by the central government, state authority is preeminent in practice.

Article 246 of the Indian constitution deals with the subject matter of laws to be made by union parliament and by the legislatures of the states. The allocation of responsibilities between the centre and the states in respect of laws to be made falls in three categories viz. union list (list-I), state list (list-II) and concurrent list (list-III) given in the seventh schedule of Indian constitution.

Parliament has exclusive right to legislate in respect of items appearing in list-I while State legislatures have exclusive right to legislate in respect of items appearing in list-II. Both Parliament and the State legislatures have the power to legislate in items appearing in list III. The subject of 'water' is a matter at entry 17 of list –II, i.e. state list. This entry is subject to the provisions of entry 56 of list –I, the union list. The specific provisions in this regard are:

Union List (List – I)

56. Regulation and development of Inter-State rivers and river valleys to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest.

State List (List – II)

17. Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of Entry-56 of Union List.

Article 262 of the Constitution is regarding adjudication of disputes relating to waters of Inter-state rivers or river valleys. The said article reads as below:

> *"262(1) Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-state river or river valley*
>
> *(2) Notwithstanding anything in this constitution, Parliament may by law provide that neither the Supreme Court nor any other Court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1)"*

It is, therefore, apparent that the subject matter of water comes under the purview of both the union parliament as well as the state legislatures. Parliament by virtue of the powers bestowed under Article 246 is the supreme body to formulate any law(s) for development and regulation of inter-State rivers and river valleys, if it deems that the same is expedient in public interest. Furthermore once parliament enacts any law invoking entry 56 of list I, the same supersedes any other law formulated by the state legislatures invoking entry 17 of list II.

So far, four acts have been enacted by the union government under the above constitutional provisions, three under entry 56 of list I namely, the "River Boards Act 1956", "Betwa River Board Act 1976" and "Brahmaputra Board Act 1980" and one under Article 262, namely, the "Inter-State Water Disputes Act, 1956".

The River Boards Act, 1956 provides for creation of advisory river boards. The Act envisages that the boards would help in coordinated and optimum utilization of river water and development of irrigation, drainage, water supply, flood control and hydro power. However, no river board, even of advisory kind has been set up under this Act.

The union government constituted (i) Betwa River Board in 1976 under Betwa River Board Act 1976 for construction of Rajghat dam on river Betwa and (ii) Brahmaputra Board in 1980 under Brahmaputra Board Act 1980 for preparation of basin plans of Brahmaputra basin.

The Inter-State Water Disputes Act, 1956 authorizes the union government to set up a tribunal for the adjudication of disputes relating to waters of inter-state rivers or river valleys. The Act declares the decision of the tribunal to be final and binding on the parties to the dispute. The Act excludes the jurisdiction of all the courts including the Supreme Court of India in respect of disputes referred to the tribunal. The Act was amended in 2002.

Besides, the above Acts under specific provisions related to water in the Indian constitution, the union Government has enacted many other Acts under other constitutional provisions as described below.

Damodar Valley Corporation Act was enacted in 1948 (before the Indian constitution came into existence) under Government of India Act, 1935 for establishment of Damodar Valley Corporation (DVC) for development of Damodar basin. The functions of DVC are flood control, promotion and operation of schemes for irrigation, water supply for industrial and domestic use, power generation, navigation and drainage. The Act remained in force even after Indian constitution came into existence in terms of the article 372 of the Indian constitution according to which all the law in force in the territory of India immediately before the commencement of this Constitution shall continue in force therein until altered or repealed or amended by a competent Legislature or other competent authority.

The article 252 of the Indian constitution provides that the parliament can enact a law on a state subject if more than two states approach the central government for enacting a law on a state subject and any Act so passed shall apply to such states and to any other state by which it is adopted. The Water (Prevention and Control of Pollution) Act, 1974 was enacted under this constitutional provision to provide for the prevention and control of water pollution, and for the maintaining or restoring of wholesomeness of water in the country. The Act was amended in 1988. The Water (Prevention and Control of Pollution) Cess Act, 1977 was enacted to provide for the levy and collection of a cess on water consumed by persons operating and carrying on certain types of industrial activities. This cess is collected with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution constituted under the Water (Prevention and Control of Pollution) Act, 1974. The Act was last amended in 2003.

The Environment Protection Act (EPA), 1986 was enacted with the objective of providing for the protection and improvement of the environment. It empowers the union government to establish authorities charged with the mandate of preventing environmental pollution in all its forms and to tackle specific environmental problems that are peculiar to different parts of the country. Water is included within the meaning of the term 'environment' in the EPA, 1986. 'Environment' was not enumerated in any of the lists of the seventh schedule and therefore by virtue of article 248 of the constitution of India, it fell within the residuary power of the union government. The Environment Protection Act, 1986 was enacted by the union government using these residual powers. The Act was last amended in 1991.

4.0 Background of Establishment of River Basin Organisations in India

The proposal for establishment of River Basin Organizations has been under consideration for a long time. Various committees were constituted to suggest the form and role of the basin level organisations. The works carried out in the past by various committees is discussed below.

4.1 Sub-Committee of the Parliamentary Consultative Committee of Ministry of Water Resources

A Sub-Committee of the Parliamentary Consultative Committee of Ministry of Water Resources considered the matter in 1988 and recommended formation of River Basin Organisations (RBOs). RBOs for major inter-state rivers were proposed to be established under Article 246 of the Constitution by enactment of suitable law. The RBOs were to work directly under the overall guidance of the Central Government and were to be charged with authorities for storage, regulation and control at various points in the river basin.

4.2 Sub-Committee of the National Water Board

Ministry of Water Resources in 1991 constituted a Sub-Committee of National Water Board under the Chairmanship of the Chief Secretary, Government of Gujarat. Secretaries (Irrigation) of the States of Madhya Pradesh, Maharashtra, Arunachal Pradesh and Karnataka were members of the Committee.

The Sub-Committee reviewed the earlier proposal of the Sub-Committee of Parliamentary Consultative Committee and recommended that the RBOs need not be set up under an Act of Parliament but through administrative order. The proposed RBO was to be

headed by a person of proven competence in water resources development as Chairman, assisted by a Member-Secretary and supported by an inter-disciplinary organisation for coordination of work related to water resources planning, development and management.

4.3 National Commission for Integrated Water Resources Development Plan

The National Commission for Integrated Water Resources Development Plan (1999) considered the need for setting up of RBOs and was strongly of the view that RBOs are an essential institutional mechanism for integrated development.

The Commission recommended RBOs as body in which the concerned State Governments, Local Governments and water users would have representation and which would provide a forum for mutual discussions and agreement.

The Commission suggested indicative structure of an RBO considering the need for wide representation, general acceptance and effective functioning which would consist of a General Council and a Standing Committee with a permanent secretariat. The Secretariat of the RBO may be formed by restructuring the field offices of the CWC.

4.4 Committee on RBOs headed by Additional Secretary, MOWR

On the recommendation of the National Water Board, the Ministry of Water Resources had set up a Committee in 2003 under the Chairmanship of the Additional Secretary, Ministry of Water Resources, Government of India. Secretary (Water Resources / Irrigation), State Governments of Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal were members of the Committee.

The Committee recommended a three-tier arrangement for RBO comprising of Council, Board and the Secretariat for advising the Governments interested on any matter concerning the regulation or development of any specified inter-State river or river valley within its area of operation and in particular, advising them in relation to the co-ordination of their activities with a view to resolve conflicts among them and to achieve maximum results in respect of the measures undertaken by them in the inter-State river or river valley.

5.0 River Basin Management Bill, 2012

MoWR constituted a Committee under the Chairmanship of Justice Tejinder Singh Doabia to study the activities that are required for optimal development of a river basin and changes required in the existing River Board Act, 1956 for achievement of the same. The report of the Committee containing the River Basin Management Bill, 2012 was submitted in November, 2012.

The River Basin Management Bill, 2012 proposes to establish a River Basin Authority for regulation and development of waters of an Inter-State River Basin or any specified part thereof and further makes it clear that different Authorities shall be established for different Inter-State River Basin. The Bill also makes provision for creation of a separate River Basin Authority for a sub-basin within an Inter-State River Basin.

Some of the salient features of the Bill are:

- The Central Government shall, by notification in the Official Gazette, establish a River Basin Authority for development, management and regulation of waters of an inter-State river basin or any specified part thereof and different Authorities shall be established for different inter-State river basin(s).

- Basin States shall have the right to participate in the development, management and regulation of waters of an inter–State river basin in an equitable and sustainable manner. In case any basin State fails to participate in the regulation, development and management then the decision of the remaining States shall be binding on all participating and non-participating States.

- Basin States shall participate and cooperate in best interest of the nation, in the development, management and regulation of waters of inter –State river basin for the mutual benefit of the basin States and the Indian Union.

- Every River Basin Authority shall consist of a Governing Council and an Executive Board.

- The Governing Council shall consist of Chief Ministers, Minister in charge of Water Resources, One Member of Parliament from the House of the People, One Member of the State Legislature, Two representatives of District Panchayat / ZillaParishad, Chief Secretary to the State Government or the Administrator to the Government of the Union Territory, One representative from the Water User Associations, One representative from the Urban Local Bodies / Municipalities, Two persons to be nominated by the State Government from each of the basin States from amongst eminent citizens having knowledge and experience from each of the basin states. Further three independent experts to be nominated by the Central Government from amongst eminent citizens having requisite knowledge and experience in water resources development, management and regulation.

- The Chairperson of the Governing Council shall be from amongst the Chief Ministers of the basin States, by rotation. Member-Secretary of the Governing Council would be the Chief Executive Officer of Board, nominated by the Central Government from amongst the officials of the rank of the Member of the Central Water Commission of the Government of India

- The Executive Board apart from the Chief Executive Officer would comprise of Secretary to the State Government in charge of water resources / irrigation / flood control , Agriculture Department, Power Department, Environment Department, Engineer in Chief in charge of water resources / irrigation / flood control, Member-Secretary of the State Pollution Control Boards, A Representative of the State Groundwater Board, Managing Director / Member Secretary of the State Water Supply and Sewerage Board, Member Secretary of the State Disaster Management Authority, One person to represent non-government organizations dealing with river basin and water resources management, One expert to be nominated by the State Government having relevant knowledge and experience in water resources development, management and regulation from each of the basin states. Further, Regional Director(s), Central Groundwater Board within the territorial jurisdiction of the concerned River Basin Authority will also be a member.

- Member-Secretary of the Executive Board would be nominated by the Central Government from amongst the officials of the rank of the Chief Engineer of the Central Water Commission of the Government of India

- A River Basin Authority shall ensure that a River Basin Master Plan for river basin development, management and regulation is prepared for the inter-State river basin under its jurisdiction.

  - The River Basin Master Plan shall, *inter-alia*, include

    - all the results of the analysis of the River Basin Characteristics
    - a comprehensive review of the impact of anthropogenic interventions on the status of surface water and ground water, including an estimation of pollution, point as well as diffused, in water uses
    - identification of protected areas, social and cultural flow needs and duration
    - environmental needs
    - ground water and protected aquifers, if any
    - a summary survey of existing pricing policies and an economic analysis
    - a fair assessment of the effects of existing legislations
    - an economic analysis for optimal allocation and the notional cost of deviation from optimal

- All the basin States shall ensure coordination with the aim of producing a single inter-State river basin master plan.

- River Basin Master Plan shall be coordinated with the plans for national economic and social development, the general plans for land use and general urban plans and plans for environmental protection, and at the same time the needs of various regions and industries shall be taken into consideration.

- The River Basin Master Plan shall be made through an inclusive consultative process in the manner prescribed.

- The Governing Council approve the river basin master plan so as to ensure sustainable river basin development, management and regulation within the parameters laid down by the National Water Policy, as amended from time to time

- The Executive Board will formulate a River Basin Master Plan for the inter-State river basin including river valley under its jurisdiction so as to ensure sustainable river basin management and will ensure compliance of the decisions taken in the Governing Council in respect of River Basin Master Plan.

- Any recommendations made by a River Basin Authority in exercise of its powers and functions under this Act shall be binding upon the Governments interested.

- The Central Water Commission would provide technical support in the matter of preparation of River Basin Master Plan in close coordination with Governments interested.