

RAJENDRA SINGH

NATIONAL RIVER POLICY

**This document is a draft of National River Policy produced by
Tarun Bharat Sangh / Jal Biradari**



National River Policy

Background

In spite of 80 per cent of the Indian population dependent upon 14 major rivers of the country, which contributes significantly to food and livelihood security and fulfilling the social and spiritual needs of the societies, the people of India are moving towards a major catastrophe. In the past civilizations have vanished because of the mismanagement of water resources. Therefore, introspection and urgent action on a river policy is an imperative for the future of the country.

Recently, in an undertaking given to the Supreme Court, the central government has claimed that it will clean Ganga by 2020. The single biggest threat to the existence of the rivers, namely big dams and hydropower projects with canal diversions, is neither a part of the river governance, nor a part of any policy or program for sustainable existence of the rivers.

Several ambitious legal and institutional measures and projects like the Water Pollution Act, the Central Pollution Control Board, the State Pollution Control Boards, Ganga Action Plan, the Yamuna Action Plan, the National River Action Plan have yielded no results. The government prefers to be an active participant and yet does not take responsibility for the failure. The urban water utilities, including the people of the national capital region, the super rich 'world power' of Indian industry and business houses, does not care whether the rivers are dirty. In spite of mindless wealth generation and glorifying the Ganga as India's national river, the river has become so dangerously polluted and filthy that it is already a dead river.

1.0 National River Policy Perspective

Pre- and post India's independence, there is a complete absence of any policy, law, institution or governance framework related to the rivers of India. Our government has shown no faith in democracy and development. This has led to a dispute over water whether at district, state or national levels and has only deepened that being resolved. Disagreements among states and government have been a known phenomenon all over India. This is why the development of a National River Policy becomes more important than ever.

River Definition: A natural stream of fresh water that flows into an ocean or other large body of



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water and is usually fed by smaller streams, called tributaries that enter it along its course. A river and its tributaries form a drainage basin, or watershed, that collects the runoff throughout the region and channels it along with erosion sediments toward the river. The sediments are typically deposited most heavily along the river's lower course, forming floodplains along its banks and a delta at its mouth. River is a hydrological, geomorphic, ecological, biodiversity-rich, landscape-level system that serves as key part of freshwater cycle, balancing dynamic equilibrium between snowfall, snow mass (including glaciers), rainfall, surface water and groundwater and providing large number of social, economic and environmental services to the people and ecosystems all along its watershed.

2.0 Goal:

To enable rivers to be rejuvenated and to be able to sustain its existence and provide eco system services for generations to come.

3.0 Guidelines:

3. 1. Rivers are a part of the human environment and society. The formulation of this policy is for the security and conservation of our rivers from the social, environmental, cultural and religious point of view.
3. 2. As a part of a governance system, governments are the primary party for development of river policy, however as users, all human beings and citizens have equal responsibilities and therefore, should also participate in the governance of rivers.
3. 3. The National River Policy will ensure that the rivers can be rejuvenated through participation of communities at all levels. Participation at grassroots level like the gram sabhas, local community, districts and panchayats can play a crucial role in this process. Culturally and spiritually the rivers play an important role therefore, the religious leaders should also be assigned a role in maintaining the purity of rivers.
3. 4. Privatization of rivers and water resource should not be permitted, as this can be instrumental in private companies/ corporate houses controlling the lives of people. The negative impact of privatization of rivers and water resources are well known nationally and internationally. It is possible only if all the water resources in the country are declared as common pool resources and water markets are banned.



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3. 5. River basin water auditing and management be the basis of water resource planning and development. The relationship between groundwater and river water be understood properly to address the groundwater crisis in the country.
3. 6. National and State Water Laws should be reviewed in the context of changed socio-political environment and an attempt to be made to formulate comprehensive water laws to enable the new river policy to be implemented. Pollution of rivers and water bodies, including groundwater is to be considered as criminal act and new laws to be made, replacing the existing ineffective laws.
3. 7. The available knowledge on the subject of climate variability and climate change and the present and future river flows is not very conclusive, therefore, there is need for some serious research on the subject for better planning and management of our rivers. The national river policy should call for allocation of more funds for this activity.
3. 8. The existing sectoral policies hardly attach any value to water resources. There is need for review these policies in the context of use and abuse of water resources, even using the concept of virtual water to highlight the importance of water in a sector. Water allocation for industries should have lower priority than drinking and agriculture, as is written in the National Water policy and policies of all the states.
3. 9. In order to ensure success of the National River Policy the country should have an appropriate National Land Use Policy, as there is land grab movement is on in the country, i.e., acquisition, encroachment and allotment of lands by the State and people without caring for the impact on local and regional water resources. Despite several landmark judgments by higher and lower courts to address the problems of rivers and water bodies'. State agencies are not serious about proper land use across the country. National common property resource policies and regulations need to protect the existing natural resource base and to maintain vital ecosystem services.
3. 10. Rivers are the property of society, i.e., the people who live in the country, and not of any individual or business. The National River Policy should act as guide in making the rivers an entity owned by all and the state should act as custodian and not owner.



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4.0 Principles:

4. 1. Integrated Water Resource Management (IWRM) principles are to be adopted in the management of all water resources in the country through people's participation. People should be the owner and manager of water resources. It will require mass water awareness campaigns in the country followed by capacity building programs at all levels.
4. 2 Governance of rivers should be completely transparent and participatory and managed by people by constituting an organization called River Parliament. The logistics for formulation of this River Parliament can be organized for every 10 km distance of a river, and these Parliaments should have power of a local governance committee. There should be at least 50% members' representation from the local communities. The committee should have legal powers to monitor the river and take corrective measures/orders as per the requirement to maintain the quality and flow in the river. The committee should be provided access to all relevant technical and other information for effective governance. Finally, at River Basin level there will be a apex body namely river basin governance committee comprising of members nominated from local governance committees to form a River parliament. State should consult the local committee and the River Parliament in planning any development or intervention in the river.
- 4.3. Similar governance structures should also be established for taking decisions related to particular hydropower projects, dams, diversion structures, pollution control boards, etc..
- 4.5 . Environmental flows should be ensured in all the rivers in the country. Balance has to be maintained between surface and groundwater, use in all the river basins to check the alarming status of groundwater across the country.
- 4.6 River flood plain demarcation needs to be taken up on a high priority basis, based on 100 years flood data, and these should be protected by legal and regulatory provisions.
- 4.7 Usability profile of river and cyclone areas should not be modified or changed. Clear demarcation of source of origin to ocean river flow, and these areas to be defined as reserved areas. Community participation in identification of these areas should be ensured.



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4.8 In order to avoid release/mixing of contaminated and sewer water into rivers there should be different policies for sewer and river.

4.9 Surface and ground water pollution by individual, group, community, industry or any other should be treated as criminal act and must have legal provisions for severe punishment and not penalties. Continuous and planned efforts by all be made to maintain the natural characteristics of rivers.

5.0 Prioritization of River Water Use

Rivers water usage should be planned in such a way that it meets the basic needs as defined in the Constitution of India, i.e., right to life. For that right to be safeguarded this means that maintaining the health of the rivers needs to be maintained i.e., ensuring minimum environmental flow in all the rivers, and also meeting the growing water demand for economic development. The priorities of water allocation should be as follows:

1. Release of water as Natural/environmental Flow (environmental and ecological)
2. Drinking Water (both for humans and livestock/animals)
3. Water for agricultural livelihood
4. Non-consumptive uses, such as, cultural, religious, and tourist uses, etc.
5. Hydro Power
6. Industries
7. Others

6.0 River Rejuvenation and Natural Flow:

Natural flow of the rivers should be given the above priority. The river and groundwater should be treated as common property resource (CPR). The management of rivers and groundwater will be impossible without peoples' participation as there are strong traditions of community management of water and other natural resources in India. The traditional systems got marginalized as the State became powerful and came out with a new governance and management system of centralized command and control. The need of hour is to learn from the past and develop a new model that



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can safeguard the health of all the natural resources and ensure equity in access to them by all section of the society i.e., dalits, adivasis and other marginalized groups.

People, educational institutions, cultural groups, religious institutions should be motivated to feel their responsibility in conserving and protecting the natural resources and reestablish the value system related to the use of natural resources, in the new generation.

Since Independence we have GDP or economic outputs in limited sectors that are planned at the cost of the health of the rivers. There is need to shift from the existing development planning model to a resource-centered planning model. Water being the life and most threatened resource of the XII Five Year Plan, and this could be water centric so that the future generations will have sustainable use.

6.1 Augmenting the natural flow in rivers:

- Adoption of Integrated Water resource Management (IWRM) approach in all river basins, sub-basins and watersheds. It should be participatory and based on use of traditional and modern knowledge of water resource management.
- Use of remote sensing technique in mapping of river basins and identification of existing water bodies and water harnessing structures. There is debate on the excess number on anicuts constructed under different rural development programs, i.e. watershed development, MGNREGA, by NGOs under different projects, and encroachments in the catchment areas of water bodies responsible for reduction of flow in rivers and dams. Remote sensing technique can help in addressing the issue and plan for optimum number and at appropriate places. Even this issue can be taken care if traditional knowledge and participation of people is sought in IWRM planning. Prepare a surface and groundwater water balance report and identify interventions to augment water flow in the rivulets to rivers.
- Initiate water auditing and budgeting at all levels starting from village to river basin and plan for surface and ground water augmentation and usage with one of the objective as drinking water security to all.



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- Utilize wherever possible existing traditional local water sources and if needed, they are to be rejuvenated. Any encroachments should be removed them so that they are functional.
- Popularize water conservation and use of water saving technologies. As agriculture is the most water demanding activity promotion of sprinkle and drip irrigation techniques to reduce the demand significantly.

6.2 Management of river water resources

6.2.1 Organization and participation of water users

- Integrated water resource management approach should be adopted in the entire country through adequate strengthening of community and their participation at all levels.
- Basin, sub-basin, watershed, groundwater, aquifer should be the unit used in state and national level water resource development planning and this needs to be done with stakeholder participation, keeping in mind overall environmental impacts.
- Community capacity building on water resource planning, conservation and use needs to be carried out through various types of training and orientation programs through panchayats. Capacity building area issues are: a) integrated water development, b) water distribution, c) addressing inequities in social structure, d) community health, e) safeguarding chemical and microbiological water quality, f) ensuring environmental management, g) ensuring drought area water management, and h) upgrading better agriculture in hard water areas.
- Ensure better implementation of IWRM in consultation with an organization of water users at village level to river basin level at one hand and from village level to national level on other hand. The experience of Arvari River parliament can help in formulating appropriate groups of people at different levels and can be named as River Parliament.
- Provision for appropriate legal, technical and resource supports need to be made for these River Parliaments. These Parliaments will jointly work with the government organizations to manage the water resources of the country. They will also play significant role in water



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conflict resolution at different levels.

- Nomination of community water group leaders should be through democratic processes with participation of all including the marginalized social groups in the society and also ensuring equal participation of women.
- Setting up a system of coordination between state government and water user groups facilitating the implementation of integrated water resource management.
- Strengthening governance model that will try to ensure equity in access and use of water resources at all levels.
- Ensuring communities' optimum conservation and optimum use of water resources by using traditional and modern technology and knowledge.
- Awareness programs that help communities become aware of domestic water use, agriculture use, maintaining water life, so to implement every initiative after evaluating availability of water and ensuring natural flow of the river.
- Preparing technical data, manuals, information for community organizations and made available by the state to facilitate better governance and management of water resources. There is need for regular authentic and quality data collection, ensuring proper data analysis and transparency for better social use.

6.2.2 River water usage

1. *Agricultural use*: Presently agricultural usage of water is the highest and it gets water from surface and groundwater sources. Agriculture is also the highest employment and livelihood providing sector, also feeds the fast growing large human and livestock population. It is for this reason it gets higher priority in allocation of water. Most of the structures on rivers are to store water for agriculture sector. These structures are of different sizes and are being questioned In terms of their location, size, design, release/allocation of water, etc., at all levels, ranging from local level to international forums. There are less question regarding the priority agriculture sector gets in allocation of water but more on other aspects. In the



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present scenario in the country there is an agreement that we have exhausted the best economic and viable sites to dam major rivers and also second and third level rivers except in Himalaya, which was left out for environmental and various other reasons. There is strong bias based on scientific and social factors that no new dams are to be constructed either for irrigation or hydro power as this will be disastrous for the riverine culture on which the present and future generation of the country will depend.

The policy should be that the future water demand of the agricultural sector can be met without further investment in the new structures by improving the efficiency of existing structures and significant amount of water saving is possible in canal and on farm water management through institutional reforms and adoption of water saving technology by farmers.

2. *Drinking water- Urban and Rural supply and Demand:* The nature and management system of drinking water in rural and urban areas is quite different and hence the problems are different.

a. Rural Drinking water: The rural drinking water problems are mostly in the rainfed semi-arid and arid parts of the country where the source is mostly groundwater or small surface water harnessing structures; therefore, rivers have very little direct role. It is the energy and pumping technology responsible for drinking water crisis in these areas. The solutions lies in better understanding of the traditional knowledge systems and using complimentary appropriate technologies (especially where the quality of water is a problem). Many NGOs in different parts of the country have shown the strength of this argument in the effort to create access to clean drinking water. River linking may not be the first option to address these problems.

b. Urban water demand: The emerging trend of urbanization in the country throws new challenges before the urban water managers. It is also predicted that by the year 2035 around 40% of countries population is going to settle in urban areas, further increasing the urban water demand. The urban water demand is totally different than rural in its quantity and multiple usages. Firstly, there is huge bulk demand per day that is given, and with the



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declining status of our rivers and groundwater it will be impossible to meet the drinking water demand of fast growing urban population through one single source. Secondly, the urban lifestyle has multiple usages of water and this has intensified the demand for water. Thirdly, the urban population is highly insensitive and therefore wastes lot of precious water. Fourthly, after the use of water, disposal is one of the biggest problems. The amount of sewage released and that too untreated creates health and environmental problems whether it is released on surfaces or in rivers or rivulets. The urban water is a mix up of domestic and industrial use so it becomes highly contaminated and hazardous for human and other living beings.

Presently our concern is the disposal of sewage in rivers and polluting them beyond repair. The River policy should address the urban water supply issue, both addressing the supply side as well as the disposal of sewage, and this should be done in close collaboration with the urban policy makers. At the first instant sewage either untreated or treated should not be discharged in any river, water body, groundwater; rather it should be diverted for agricultural use after primary treatment. If there are compelling reasons for channeling it to the river, it has to be treated up to very high standards and the quality be monitored by people's organization, judiciary and any third party on a regular basis and reports are to be made public in print and electronic media. The complete cost of sewage treatment is to be recovered from urban population. The technology that is currently in use in sewage treatment plants is uneconomical and unreliable, therefore, alternative options have to be found, such as, for example, traditional Indian water purification systems.

Urban water distribution losses are very high (30 to 40%) in India. To arrest water wastage the existing water distribution system needs to be reviewed and new plans are to be urgently put into action. Water losses need to be brought down to a minimum of 15%. The water meter system also could be proactively put into process.

3. Industrial Water Demand: The Industrial water demand (2%) is much smaller than agricultural demand (85%) yet at a particular location their demand is much higher than any other usage. The industrial demand for water is considered to be important from the point



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of view of economic growth of our country but at the same time it is also known for raising water conflicts. The conflicts are more related to the release of wastewater (pollution) than the quantum of water used/allocated. It is the nature, location and source of water supply to any industry that determines the type of conflict that is going to occur, for example, beverage industries in Alwar or Coca-Cola in Jaipur district of

Rajasthan draws huge amounts of ground water, further aggravating the groundwater crisis in a water scarce state. Another example is mineral based industries in Orissa, drawing huge water from rivers and discharging both solid and contaminated waste water into rivers, depriving farmers of their share and adding to their health problems. The conflicts are also because of lack of communication between the farmers and the industrialists leading to distrust between each other. By nature industrialists are powerful and try to manage things from the top and never communicate with local people and as companies profit-making as their objective, the social concern is only secondary. The other most important issue that arises is that invariably industries evade the existing pollution laws and never pay for or compensate for negative environmental consequences.

Given the present socio-political milieu it will be appropriate that; a) all industrial solid waste, with potential for water contamination, should be disposed off in designated facilities, through Integrated Waste Management. Discharge of contaminated effluent to either groundwater or surface drainage should be forbidden and if evaded should be treated as a criminal act and punished accordingly; b) all effluent should be treated to conform to specification prescribed by Bureau of Indian Standards before discharging into natural stream or to groundwater recharge. Standard ceiling for the use of recycled water should be fixed after considering its use in agriculture. c) Making the Pollution Control Boards transparent, accountable and participatory is an imperative; d) setting up a recycling process for keeping a check on the amount of water being used by small and large industries is also important. These industries would be required to maintain a register of water usage. This register would contain information such as amount of water used, amount of water



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recycled, water in storage capacity, and amount of pollution emitted. Local communities should have access to such facilities and data for monitoring purposes.

6.3 Water resource infrastructure management

- Dam management committees are to be made effective with proper composition having community representation. This committee should be made responsible for evaluation and presentation of reports. The committee should also have the authority to evaluate reports, ensure compliance and regulate the management of any dam.
- All technical information related to daily water flow, rainfall, storage level, evaporation and other relevant information and documents should be available to the committee and also put in public domain.
- Effective flood forecasting system should be established on all high discharge rivers. The likely affected population could be trained on different aspects of emergency management systems making emergency planning a regular activity.

6.4 Water quality monitoring

- As more than 60% of diseases are water born, therefore, it is essential that drinking water quality should be monitored strictly as per the prescribed health norms and it should be conducted by community organizations through the social monitoring of all the surface and ground water bodies on a regular basis. If it requires capacity building of community organizations and establishment of water quality testing labs at local level, resources should be made available for this activity in all the states of India.
- Creation of a list of all polluted water sources and taking measures to check the related activity and fix responsibility so that it is not repeated again.
- Formulating programs using integrated waste management approach to make sure that industrial waste does not contribute to the contamination of water. In cases where such industries are identified as contributor and are permanent adulterator of water, or evading the principle of safe disposal, punitive action should be taken.



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- The Municipalities and PRI's, in cooperation with the Pollution Control Board, should undertake a rolling program of water auditing for all industries, large and small, to compile a register of industrial water usage. This audit should include (a) the quantified water usage, (b) the potential for water recycling and conservation, and (c) actual and potential pollution associated with each site.
- Inspection and documentation of drainage system in all the cities and semi-urban areas in the country is to be undertaken on a priority basis. Installation of STP is to be undertaken at the earliest or alternative options for water treatment are to be identified and implemented immediately. If STPs than operation of those should be ensured and the management be made accountable to local communities nominated by the River Parliament.

6.5 Environment Management:

- Studies in the area of climate change and its impact on water resources to be undertaken in all the agro-climatic regions of the country and the findings should be used while planning integrated water resource management activities.
- Most dams do not release the minimum amount of water called environment flow to maintain the hydrological system downstream. This has also affected the yields of wells downstream and the flora and fauna. Environmental flow should be made essential for all the major and medium dams in India.
- Generally people/farmer cope or adapt to climate variability therefore studies should be undertaken on climate trends, and their long-term implications for marginal and environmentally sensitive areas. These findings will be disseminated to the community level for appropriate IWRM planning.
- Independent Environmental Impact Studies (EIS) should be undertaken for all proposed major and medium water resources projects. An inventory of high-priority ecological systems, particularly those of significant genetic diversity, will be prepared, and the human impact upon these systems assessed.



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Flood/Drought Management:

- Flood management and water conservation: working on a proactive approach to flood management for rivers with excessive flow.
- Community education on water collection and water recharge. Amplifying the concept of water distribution to reduce flood peaks.

7.0 Legal Reforms

- In order to prevent encroachment or pollution of water sources, a law on water needs to be put into place. In cases where extreme pollution is being monitored by user groups. The user group will have the authority to work in consultation with the relevant line department and take appropriate action.
- Water and land rights will be differentiated. The owner of the land may necessarily not be the owner of water. Groundwater should be made public property.
- Necessary legal provision should be made in bylaws of local bodies for water conservation and for recycling the water in urban areas. Standard ceiling for use of the recycled water should be fixed after considering the effect on human health.
- Most States have failed to come up with ground water laws to check the over exploitation mainly because of political reason. There is urgent need to developed regulation and management of groundwater extraction in general and in the 'critical and overexploited' zones in particular otherwise it will be too late to recover. Such legislation should also address the need for compensatory water conservation and recharge measures to be taken by the bulk water consumers.
- Comprehensive laws should be framed to preserve existing water bodies from unauthorized construction, pollution and encroachment. In the event of significant pollution the local water-user group will be required to remedy the source of pollution, using technical and material assistance from the appropriate department.
- Finally, all Government departments across the water sector should vigorously pursue awareness and practical use of water-saving technologies in all segments of society, including agricultural, domestic, industrial, institutional, commercial, and public utilities. The



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re-use of treated sewage effluent should be promoted, with appropriate levels of treatment applying to municipal usage, industrial usage, other horticultural usage, beneficial surface discharge, and recharge to groundwater. Water intensive industries should be required to recycle their water.



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