

# **Draft Integrated State Water Policy, Meghalaya**

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## **1. Background**

### **1.1. Water Availability**

Water is a natural resource, which is fundamental to life, livelihood, food security, and sustainable development. However, there are challenges of frequent floods and seasonal water shortages in many parts of Meghalaya. With a growing population and rising needs of a developing state as well as the given indications of the impact of climate change, availability of utilizable water will be under further strains in future with the possibility of deepening water conflicts among different user groups. Low public consciousness about the overall scarcity and economic value of water results in its wastage and inefficient use. In addition, the distribution of water is inequitable and there is a lack of a unified perspective in planning, management and use of water resources.

Sustainable and equitable planning, development and management of water resources is critical for the economic development of Meghalaya and for securing health and livelihoods of her citizens, while protecting the state's natural assets. Considering the multiple and competing needs for, and uses of, water and the multiple and complex processes putting increased pressure on water resources, water resources must be managed in an integrated and holistic manner, where the various social, economic and environmental needs are balanced and met in a sustainable manner.

### **1.2. Rationale for Water Policy**

Water is a precious natural resource, which is fundamental to life, livelihood, food security, and sustainable development. Even with high precipitation, Meghalaya is facing several challenges which affect availability, affordability and sustainability of water. Urbanization, changing lifestyle and population growth complicates the matter, further.

While most rural households in the State have access to safe drinking water, proportion of households with tap water connections remains low, and only 45% of rural households are covered. The State has high dependence on rain and surface water while ground water remains substantially unexplored.

Lack of sufficient storage capacity of water and poor water management practices, leads to seasonal water shortage and flash floods in some parts of the State. Low public awareness about the overall scarcity and economic value of water also results in its wastage and inefficient use. Further, lack of awareness about sanitation and hygiene especially in the rural areas is leading to contamination of water resources and increased disease burden on local communities.

The water bodies are also victims of degraded catchment areas, lack of conservation and mining. The water quality degradation has adversely impacted the aquatic life, availability of potable water and agricultural productivity. Lean season water flow dwindles leading to impact on livelihoods and conversion of rivers into drains for the period.

Integrated Basin Development and Livelihood Promotion Programme was launched by the State to generate water centric livelihoods and promote social infrastructure development around water bodies. This programme requires active community engagement in sustainable development and management of water resources and framework for inter-departmental engagements/ consultations.

With rising needs, aspirations and impact of climate change, availability of utilizable water in future, will be under further severe strains with the possibility of increased water conflicts among different user groups. The upsurge in consumptive usages and contamination of water bodies by upstream users is also increasing the possibility of water conflicts between upstream and downstream users.

Sustainable development and management of water resources is critical for the economic development of Meghalaya and for securing health and livelihoods of its citizens, while protecting the State's natural assets to protect inter-generational equity. Considering the multiple and competing needs and usages of water, water resources must be managed in an integrated and holistic manner, where the various social, economic and environmental needs are balanced and met in an equitable and sustainable manner. In addition, the increasing expectations of people to have physical access to sufficient quality water for household, economic and livelihood opportunities, warrants a new approach towards governance, development and management of water resources in the State.

## **2. Policy Objectives**

This Integrated State Water Policy of Meghalaya intends to “achieve sustainable development, management and use of Meghalaya's water resources with community participation to improve health and livelihoods, reduce vulnerability while assuring good governance for present and future generations”. Environmental sustainability and conservation, social inclusion and equity are crosscutting issues, which will be duly considered in relation to all aspects of governance, management and use of water resources to ensure that future generations can also enjoy them. The specific objectives of the policy are as follows:

- (i) Equitable, economical and efficient allocation of water;
- (ii) Ensure physical access to minimum assured quantity of safe, hygienic and affordable water for drinking and sanitation to all residents of the State;
- (iii) Promote community led development and management of water resources;
- (iv) Ensure transparency, inclusion and equity in planning, development and management of water resources. Use latest tools, technologies and approaches for the purpose;
- (v) Use water as a resource for livelihood development especially in the rural areas;
- (vi) Enhance resilience to disasters and the impacts of climate change;
- (vii) Ensure convergence of water related schemes and activities of related government departments; and
- (viii) Provide an efficient and effective regulatory framework for the water sector.

## **3. Community Driven Development**

The State intends to make a radical shift in its approach from provider of centrally engineered solutions to facilitator and knowledge services provider in development of community based projects. A suitable governance and management framework would be established to empower the community and build their capacity to develop and manage water infrastructure.

#### **4. Water Allocation Priority**

Priorities for water allocation for various usages will be broadly as follows:

- (i) Drinking water
- (ii) Irrigation
- (iii) Hydropower generation
- (iv) Minimum ecological needs
- (v) Industrial non-consumptive uses, such as cultural, leisure and recreation
- (vi) Agro-industries and non-agricultural industries
- (vii) Transport and other usages

However, priorities may be modified or added if warranted by the circumstances and on the basis of specific relevant considerations. During scarcity, water will be allocated for different uses as per the availability and demand of water.

#### **5. Conserve, Regenerate and Harness Water Resources**

In its endeavour to ensure sufficient, safe, acceptable, physically accessible and affordable water for domestic use and sanitation, the State would empower and develop the capacity of communities to develop, regenerate and sustainably manage available water resources. Sustainable harnessing of water resources would fulfill the needs of water not only for domestic use but also for livelihood development and income generation activities. Therefore, multi-purpose water resource projects, wherever feasible would be promoted.

A coherent and coordinated approach would be adopted to ensure the community led planning and management of water resources. All the water usages/ demands and water availability will be taken into account in the process to ensure water balance. Appropriate actions will be taken to conserve existing rivers, springs, reservoirs and natural wetlands and to maintain their water quality and flow rate especially during the lean period.

##### **5.1. Planning**

- 5.1.1. Multi-disciplinary and integrated efforts will be undertaken for planning of water resources project according to priorities set out in this policy. Traditional methods of water resource management and traditional community knowledge regarding the water resources along with the modern tools, technologies and approaches would be used in project planning. Special focus would be given to quality of project preparation and project management to reduce time and cost overruns and sub-optimal realization of benefits. Areas of convergence with other departments would be identified and concerned government departments/ agencies would be involved, wherever required in entire project lifecycle.
- 5.1.2. Conjunctive use of water would be promoted to balance demand-supply of water throughout the year and optimise use of available water sources (rain water, surface water or ground water). The water source which has comparative advantage in terms of cost, physical accessibility and environmental impacts would be used.
- 5.1.3. Comprehensive assessment of water resources in the state would be undertaken as follows:
  - (i) Mapping of springs and streams for their conservation and sustainable use;
  - (ii) Ground water assessment to map availability and quality of ground water; and
  - (iii) Prepare an inventory of sites to develop multipurpose water reservoirs.

- 5.1.4. A State water sector investment plan would be prepared detailing current status, needs, opportunities, funding requirement, and prioritisation based on current regional imbalances, completion of on-going projects and rehabilitation of existing schemes.

## **5.2. Asset Creation and Management**

- 5.2.1. The State would encourage creation of multipurpose reservoirs at the village level or micro-watershed level to promote water security and create livelihood opportunities in the villages. Similarly, small water storage structures for rainwater harvesting at household level would be promoted, especially in remote scattered habitations, to improve water security at household level. Ground water resources would also be explored for the purpose, wherever it is a cost effective solution.
- 5.2.2. The State would also promote decentralised and integrated drinking water and waste water treatment schemes to reduce waste water discharge into the rivers/ streams.
- 5.2.3. The existing water infrastructure including the irrigation systems in the State will be rehabilitated with community engagement.
- 5.2.4. Options would also be explored to transfer the operations, maintenance and management of water infrastructure in the rural areas to the association of the beneficiaries/ users of the asset. Steps would be taken, in collaboration with the community, to ensure the sustainability of the water infrastructure.
- 5.2.5. Monitoring of projects implementation would be undertaken by the implementing agency in association with the project beneficiaries. A decentralized monitoring system would be established to identify bottlenecks, their escalation and timely addressal. A dashboard would be created to monitor status of the projects to ensure their time bound completion.
- 5.2.6. A system would be established to undertake safety audit of bigger dams in the State at periodic intervals by an independent agency to identify and manage safety risks and ensure safety of the dam, nearby and downstream communities and mitigate adverse environmental impact.
- 5.2.7. A system for flood forecasting and warning would be established. In addition, a disaster management plan would be prepared and implemented with community and civil society participation.

## **5.3. Conservation of Water Resources**

- 5.3.1. Improved land and water management practices, such as catchment area treatment, preservation of forest, reforestation of upper catchments, riverbank protection and construction of check dams would be promoted. Catchment area management plans would be prepared and implemented with community participation for each micro-watershed.
- 5.3.2. In planning and designing of any water infrastructure, catchment area management, environmental and ecological concerns, rehabilitation of and compensation for affected people and minimum water flow rate throughout the year would be ensured.
- 5.3.3. Revival of traditional water management systems for harvesting and conservation of run-off rainwater by the community would be encouraged.

- 5.3.4. The community and other stakeholders would be encouraged to invest in reclamation of the abandoned degraded mines and old quarry areas.
- 5.3.5. Efforts would also be made to convert the Meghalaya into organic state to prevent entry of fertilizers and pesticides into the water system in the State. Further, in coordination with Meghalaya State Pollution Control Board, steps would be taken to stem discharge of untreated waste water from industry, mining activity or urban waste water directly into the water bodies.
- 5.3.6. In urban areas, wherever required, sewage/ effluent treatment plant would be installed in collaboration with urban local bodies.

#### **5.4. Water Tariffs**

The process of setting up of the water tariffs would be decentralized, wherever feasible. Communities willing to undertake efficient operations and maintenance of water infrastructure in the rural areas would be given the freedom to fix the water tariffs for their users. However, Water Regulator would fix the tariff for minimum assured quantity of household water and shall review the water tariffs to ensure that these are fairly fixed for all sections of the society. Wherever the water infrastructure is managed by government agencies, water tariffs would be dexterously designed to incentivize efficient use of water.

#### **5.5. Capacity Building**

- 5.5.1. The State would undertake capacity building of all stakeholders including relevant government departments/ agencies, autonomous district councils, community, water associations, civil society and contractors engaged in development or management of water infrastructure to enable them to perform their respective roles and responsibilities in an effective and collaborative manner.
- 5.5.2. A system would be established to provide sound and timely advice to the community on need basis for development, management, operations or maintenance of water infrastructure.

#### **5.6. Research**

- 5.6.1. Research would be undertaken to develop a low cost kit to analyze drinking water quality and its compliance with the prevailing standards.
- 5.6.2. Research would be undertaken to develop low cost construction techniques which will reduce construction time and use local materials in construction of reservoirs and water harvesting structures.
- 5.6.3. Various technologies available in the water sector which can be used/ adopted in the State especially in the remote areas would be identified and evaluated.

### **6. Governance and Institutional Arrangements**

- 6.1. The State would review its acts and regulations related to water sector and align them to effectively implement this policy and to make its institutions efficient and accountable. Special emphasis would be given to ensure that institutional framework and institutional mandates are conducive and supportive of inter-institutional, inter-sectoral and multi-stakeholder coordination, collaboration and convergence.

- 6.2. *Meghalaya State Water Resources Council* under the chairmanship of Chief Minister would take all policy related decisions, resources mobilization, promote community participation and coordinate with the concerned departments to enable smooth and expeditious project implementation.
- 6.3. *Water Regulator* would be setup under a suitable state legislation to provide the regulatory framework for the water sector. The eminent persons in the sector and community may be given representation in the water regulator. This regulator would inter alia be responsible for regulating the use and discharge of water, fix/ review water tariff, resolution of water related conflicts and overseeing that sufficient environmental and social impact mitigation measures are undertaken.
- 6.4. *Meghalaya Water Resources Development Agency* would be suitably strengthened and restructured to improve its implementation capacity.
- 6.5. *Autonomous District Councils* would be provided appropriate assistance to improve their efficiency and effectiveness in development or rehabilitation of water infrastructure.
- 6.6. *Water Associations* of the beneficiaries of the project with adequate women representation would be encouraged and strengthened so that they can manage the water infrastructure.
- 6.7. *Water Federations* would be promoted at micro-watershed, watershed and state level to create forums for experience sharing, capacity building of water associations and engagement with the state government agencies.
- 6.8. *Meghalaya Basin Development Authority* would act as a coordination agency for convergence of activities of various government departments. It would develop local area development plans with the community to effectively achieve the objectives of this policy and assist in implementation of such plans. It would also assist other State Government departments / agencies in data collection, catchment area management, capacity building and research activities. It would also actively engage itself with the respective departments in development of policy and regulations in the areas which may affect the water quality e.g. mining, agriculture, animal husbandry, land-use, power generation, inland water navigation, manufacturing, tourism, etc. to align them with the objectives of this policy.
- 6.9. The State would encourage institutional harmony between the traditional or customary community institutions and State agencies to improve the water governance framework and prevention/ early resolution of water related disputes in the State.

## 7. **Data Management and Information System**

A database which contains information on water quality and its quantity, its sources and uses, hydro-meteorological, hydrology, demographic and social data will be prepared. All such data will be available on the website in suitable user-friendly format and would be periodically updated. Water analysis, water pollution, water tariffs and water audit reports would also be available on this website. This database would become a tool for future planning, development, regulation and governance of water resources in the State.

## **8. Conclusion**

This policy has been framed taking into consideration the needs and aspirations of the people concerned and the complexities involved in solving the various water-related issues. The State fully understands that the objectives of this policy cannot be achieved with the State alone playing its role. All other stakeholders would also be required to carry out their respective roles and work in collaborative manner to meet the objectives of this policy.

This policy will be supplemented with implementation strategies and action plans with specific targets, measurable indicators, timelines and progress against these will be continuously monitored.