Water Resources Department
Government of Kerala

WATER POLICY 2008

1. Background

1.1. Rationale for a Water Policy

Water is a natural resource vital for the survival of life. It is becoming increasingly evident that limited availability of water can impede further progress while its thoughtless exploitation can negate most of our socio-economic achievements. With the availability of water and water-use pattern undergoing constant changes and facing pressures owing to a variety of environmental and human factors, it has become necessary to lay down guidelines and policy parameters for the optimal utilization and proper conservation of this natural resource. There is an imminent need to create greater social awareness about the rights and responsibilities in the use of water and to put in place better management practices in the utilization of this invaluable resource. It is also necessary to ensure people's participation in water sector within the framework of decentralized democratic institutions and to evolve suitable frameworks and strategies for the continual up-gradation of water

environment. Further, it is important to make sure that the right of every citizen to equitable access to water for his or her basic needs is protected and enforced through appropriate policy, legislative and programme initiatives. State Water Policy is, therefore, a necessary prerequisite for proper planning, thoughtful utilisation and sustainable management of water. It calls for a multidisciplinary and holistic approach that considers water as part of the ecosystem for the benefit of all and not as a commodity for the profit of a few.

1.2. Guiding Principles

Access to water is a human right. As water is a common heritage having economic value, the responsibility for its regulated use and conservation is vested with every citizen and community. The ownership of water resides with the State as a publicly owned resource with entitlement for individuals, communities and service providers to use water without owning it. In order to conserve and manage water, micro-watershed have been considered as a basic unit and river basin, as an integrated unit of micro-watersheds, shall

define water rights and regulate water use. This will facilitate a resource-based approach, user participation and a sustainable and equitable water resource management.

1.3. Basic strategies

A policy framework shall be adopted to create an enabling environment for equitable, sustainable and productive management of water resources for ensuring public health, promoting growth and minimizing regional imbalance. This shall include restructuring of roles and relationships of the State and water users for promoting efficient and productive use of water. It is necessary to redesign the present institutional arrangements in order to guide and regulate water use and achieve better stakeholder participation in planning, development and management of water resources at the river basin and micro-watershed levels. With a view to improving efficiency and productivity, high priority shall be given for promoting and supporting the development, adaptation and dissemination of new and appropriate technologies in water resource management.

1.4. Objectives

The major objectives of this Policy are to:

- Adopt integrated and multi-sectoral approach for planning, development and management of water resources.
- Consider micro watersheds as the basic unit for the conservation and optimal utilization of water resources for achieving resource sustainability.
- Integrate the problems and prospects of water resource systems by considering river basin as the basic unit.
- Emphasize the importance of comprehensive watershed conservation and management plan, water quality management plan, long-term sub-basin and river basin operation and monitoring plan and State water resource plan.
- Enable appropriate institutional mechanism and legal measures for sustainable water resource development and management.

1.5. State of Water Resources

There is a mistaken notion that water is abundant in the State. Though the State receives an average annual rainfall of 3000 mm, the undulating topography of the State coupled with deforestation and sand mining in the rivers lead to an accelerated draining of water to the sea. This is evident from the fact that the groundwater recharging has suffered and groundwater levels have steeply declined.. 5 blocks have already been declared as over-exploited while 15 blocks are identified as critical and another 30 blocks as semi-critical. The widespread wetland system too has come under great strain by widespread conversion of paddy fields for non-agricultural purposes, affecting the recharging of aquifers and water bodies. The pollution levels in the water bodies and drinking water sources have gone up at an alarming rate. Factors like unscientific waste disposal, lack of alacrity to protect the rivers and other water bodies and unplanned construction of toilets in areas of high density of population have led to the steady deterioration of water quality. Kerala has not adequately responded with appropriate water-retention techniques and approaches to meet the challenge of the high rate of rundown.

1.6. Issues in Water Sector

Water is an essential resource for drinking and agricultural purposes. According to Census, 2001, about 77% of the rural population and 56% of the urban population draw their drinking water from wells. This implies that a substantial number of open wells and ground water sources which serve as drinking water sources need to be protected from bacteriological and chemical contamination. The demand for piped drinking water is bound to grow in a developing society. The operation and maintenance of drinking water schemes need constant improvement and modernization of the distribution network, treatment technologies and optimization of delivery. The existing demand-supply mismatch has to be addressed by perspective planning and the sustainability of water sources have to be ensured with the participation of stakeholders and Local Self Government Institutions.

The technical support for integrated water resource planning at the level of Local Self Governments is grossly inadequate. This is a major handicap, which prevents the users from

involving and owning water related projects and schemes. There is a shortage of adequate facilities at various levels for testing water quality.This has to be addressed.

The total replacement of traditional systems by piped water supply need not be a goal as long as it is possible to ensure the safety of those sources of water.The 'polluter pays' principle is enforced only in the case of industrial discharges for minimizing contamination of surface and ground water sources. The same approach needs to be extended to other sectors too. The changing water use habits and increased pumping have enhanced the chances of saline water intrusion in coastal terrains.The extent of salinity intrusion in rivers also increased consequent to change in river flow regime.

Irrespective of an irrigation potential of 15 lakh ha (net), the net irrigated area, as on 2004, was only 3.81 lakh ha.The water use efficiency of the existing irrigation distribution system is poor with poor corelation to agriculture production and productivity. The major irrigation schemes have lost their bearing, especially with a fast changing land use pattern. Long

years for completion of irrigation projects and exorbitant costs have alienated them from farmers' priorities. There is a need for greater accountability and transparency in the management and operation of major irrigation projects. This is necessary to redeem their relevance for the farming sector.

The minor irrigation schemes, irrespective of their appropriateness to Kerala conditions, receive less attention with only about 14 to 17% of the overall investment in irrigation sector. The traditional water storages are mostly dilapidated due to negligence. While there is increased spending in the water sector, maintenance has not received adequate attention. Participatory irrigation management is yet to be materialized beyond pilot studies. Availability of water is not considered as a major criterion for industrial zoning. Lack of institutional regimes for water allocation and management at the river basin, sub basin and watershed level leads to sub optimal use of water. The efficiency of repeated utilization of tailrace water from hydroelectric projects needs periodical review. The management of wetlands for sustainable fisheries, tourism, transportation etc. is also inadequate.

II. Policy Parameters and Initiatives

2.1 Water Use Priorities

The State shall follow the following priority for allocating water among the various categories of users. Such a prioritization will be primarily based on the integrity of Ecosystem and will also take into consideration the physical, environmental and social background of the state.

- Domestic use
- Agricultural use
- Power generation
- Agro-based industrial use
- Industrial and commercial use
- All other uses

The necessity of conservation, development and management of water resources based on the concept of watershed is inevitable for maintaining the ecosystem, integrity of rivers and

river basins of Kerala. This is of special importance to Kerala because of the fragility of ecosystems, high density of population, changing water use habits etc. Government shall prioritize the availability of water to vulnerable groups and take steps for the sustainable management and development of each river basin.

2.2. Water Use Entitlement

The absence of clear and enforceable water entitlements at all levels causes service shortcomings, water use inefficiency and conflicts. Therefore, the State shall establish a well-defined transparent system for water entitlements according to the guidelines and prescriptions made and accepted by the public at large. Government shall be guided by the realization that water as a community resource shall be primarily utilized for public benefit and individual's interest shall not be allowed to take precedence over public interest. The commercial exploitation, use and transactions of water by private individuals and establishments shall be regulated.

2.3. Management of Existing Water Resource Projects

In order to analyze and improve the performance of all water resource projects, benchmarking exercise shall be undertaken and completed in a time bound manner. Considering the nagging issues of time and cost overruns of major and medium water resources projects, priority shall be given for completion of pending projects by stipulating cut off dates, pooling and allocating resources and constituting special task forces for close monitoring and public accountability. Short-term (annual) and long-term (five-year) management plans shall be prepared for all the major/medium irrigation and drinking water systems using modern scientific tools. In all irrigation projects, Participatory Irrigation Management (PIM) shall be implemented. In order to ensure efficient implementation of PIM, an exclusive legislation shall be enacted and necessary organizational and procedural changes shall be effected.

The Dam Safety Authority of the State shall be equipped and strengthened for organizing scientific studies pertaining to dam safety, dam break analysis, disaster management and

emergency preparedness planning etc. Safety monitoring as well as safety aspects of the structures shall be made transparent. In order to have periodical evaluation of resource sustainability and assess the corrective measures required, if any, water audit shall be made compulsory for all the projects.

2.4. Water Resources Planning

The sustainable development of water resources of the State calls for an ecosystem approach and it shall be facilitated through micro watershed based planning and intervention. In the case of groundwater aquifers, the assessment and development shall be made based on the specific characteristics of respective aquifers.

Detailed database on water at the micro watershed level shall be prepared in a participatory mode and water balance shall be estimated at the watershed, sub basin and river basin levels. A state-level master plan for water resource development and management shall be prepared by compiling the status and action plans in each micro watersheds, subbasins and river basins in a hierarchical form. The master plan, so prepared,

shall form the basis for development interventions and sectoral prioritization ensuring sustainability, equity and participation.

The overall responsibility of implementation, management and maintenance of small and medium drinking water supply and irrigation schemes shall be shared with appropriate Local Self Governments and State Government based on specific guidelines. In order to improve the resource use efficiency, all the irrigation projects shall be considered as multi-purpose projects. The possibility of raising resources through alternate means and ensuring social equity through decentralized mode of intervention in water sector under Local Self Governments shall be utilized.

In water resources projects, especially in irrigation sector, the future thrust shall be on medium and small schemes. The groundwater exploitation by pumping shall be regulated based on yield tests of wells. The concept of conjunctive use of surface and ground water resources shall be encouraged in command areas and farmlands. In order to optimize the utilization of groundwater, awareness creation and capacity

building shall be resorted to on the complexity and advantages of groundwater development and management.

The conservation and management of traditional water resources structures with stakeholder participation shall be adopted as an important practice. Artificial groundwater recharge measures shall also be promoted. Effective measures shall be adopted to prevent the physical, chemical and biological loading into wetlands. The paddy fields in the State shall be preserved for their environmental functions as well as agricultural values. Integrated management action plan for all the wetlands and their drainage basins shall be formulated and implemented.

The Fisheries and Water sectors are inalienably related. Protection of water bodies to sustain traditional fishing activities will receive a high priority. Appropriate measures for protection and development of water bodies will be adopted with a view to augmenting fish stocks and ensuring livelihood security to the fishing community. Participation of the stake holders, departments and agencies engaged in this sector will be ensured in these efforts.

Rainwater harvesting shall be given priority and promoted especially in the coastal and high range regions. Special incentives and support shall be extended to Local Self Governments and institutions for popularizing rainwater-harvesting structures. The desalination of water, though a costly option, shall also be adopted in critical areas after ruling out other alternatives.

Adoption of appropriate technology shall be made compulsory for water resource projects considering its environment friendliness, economic efficiency, technical feasibility, safety and adaptability for enabling faster transition to a dispersed production system. While planning projects, alternate plans shall be explored and their environmental viability examined for selecting the most optimal proposal. Environmental viability of projects shall be ensured using environmental impact assessment and implementation of environmental management plans. Disaster management plans shall be made essential for major projects. Periodical environmental auditing shall also be made practice for ensuring the system sustainability.