

Office of the Chief Engineer  
Irrigation & Administration  
Thiruvananthapuram

From  
The Chief Engineer  
To  
All concerned

Dated: 25/03/2019

Sir/Madam

Sub: Restructuring of Irrigation Department – 1<sup>st</sup> Draft proposal – inviting feedback/suggestions/comments – reg.

Ref: 1) Notice issued on 23/03/2019 by Chief Engineer, Irrigation & Administration along with draft restructuring proposal uploaded to website of Irrigation Department  
2) Approach paper on River Basin Authority of Kerala (Copy enclosed)

In continuation to reference cited (1), I may appreciate the fact that I am in receipt of several feedback/suggestions/comments. It is hereby informed that as part of Rebuild Kerala Initiative, the department have had exhaustive discussions with premier agencies in the water sector like World Bank, International Centre for Water Hazard and Risk Management (*ICHARM*), Japan and Disaster Risk Reduction Team (*DRR*), Govt. of Netherlands wherein these agencies have categorically agreed the methodology that has been adopted for restructuring the department so as to implement projects based on the ideals envisaged under Integrated Water Resource Management (*IWRM*).

The said discussions were also focused on the *approach paper* on constitution of *River Basin Authority of Kerala*. The concept of *IWRM* has been used in formulating approach paper thereby considering river basin in a holistic manner. Accordingly, the activities proposed are not differentiated as minor and major as being done at present.

As it is felt that some of the feedback/suggestions/comments are made without understanding the principles laid down under IWRM and that being adopted in approach paper, I once again request co-operation from the employees/organizations/associations in going through the draft proposal and to send valuable feedback/comments/suggestions imbibing the concept adopted in approach paper by 6<sup>th</sup> April 2019 to [restructure2019@gmail.com](mailto:restructure2019@gmail.com).

Yours faithfully



Chief Engineer  
Irrigation & Administration

Encl: As above.

Copy to:

- 1) The Executive Engineer, Irrigation Planning & IT Cell to be published in the website of department.

# River Basin Authority of Kerala

## Introduction

Water is central to all development challenges. 44 perennial rivers, though very short in length with very small catchments, are the most important source of freshwater for Kerala. But the alarming symptoms of degradation of the river ecosystems of Kerala point towards the urgency of appropriate interventions at both policy and project levels. Globally, Integrated Water Resource Management (IWRM) is increasingly recognized as the potential tool to tackle the water related issues including climate crisis. Repeated occurrences of extreme climatic events like droughts and floods in Kerala pinpoints the need to look at river basins holistically as one entity from its origin to the sea. To protect rivers from further deterioration and restore a healthy ecosystem, basin plans with appropriate multi-dimensional strategies fitting within the sustainability framework needs to be evolved. This will need the joint and consistent efforts and participation of all those who depend and use the rivers for diverse purposes. The institutional arrangement to catalysing the evolution of these basin plans and dynamically correlating these plans with the climate variability and other stochastic parameters is particularly important. A river basin authority is the convergence of different models originated for this purpose across the world. Establishment of a river basin authority for Kerala has become an important agenda in this backdrop.

A River Basin does not imply flowing river alone. It implies the entire river basin inclusive of the catchment and the different land uses within the basin boundary which in turn impacts upon the availability and recharge of surface and ground water in the river basin. Hence the scope and functions of an RBA shall extend to the entire river basin requiring the concerted and integrated efforts of all the stakeholder departments, agencies, institutions including local self-governments within a river basin. The multiple uses of and demands on a river basin mean that an integrated approach to managing river basins is required. Reconciling and coordinating competing demands relies on appropriate planning mechanisms, and basin planning can now be the starting point of sustainable management of the river basin and the associated social and economic systems. River basin planning is the process of identifying the way in which a river and its limited natural resources may be used to meet competing demands, while maintaining the river health.

Strategic basin plans must follow some of the basic principles of sustainability. IWRM, Eco-DRR (Ecosystem based Disaster Risk Reduction), Participation, Equitable Utilisation, Conjunctive

Management etc are some of the important principles to be upheld in the basin plans. Undoubtedly, allocating enough water for the environment must be an overarching theme of these plans. Though basin planning must be decentralized, incorporating all the above principles at basin level can be accomplished only if there is a central agency like RBA. This document is prepared to serve as an approach paper on founding of river basin authority of Kerala. Rest of the paper is organized in four sections. First section describes the proposed overall organizational setup of the RBA. Constitution of each tier of the setup are discussed in the second section. Powers and functions of the different tiers are listed in the third section. Funds, Accounts and other Matters of the proposed RBA are discussed in the terminal section.

## Organizational Setup

The proposed RBA will have two arms; the Governing Council and the Executive Committee. An advisory committee without any decision-making powers would provide advice in all technical matters and normally assist the RBA in taking science-based decisions for better development of the river basin. The advisory committee may have four members as nominated by the Government. Experts with professional and research background in the following four areas are to be nominated to the Advisory Committee.

- (a) Water Resources Management
- (b) Environmental Management
- (c) Agriculture
- (d) Climate Change

Governing Council will have Chief Minister as its Chairman and the Minister for water resources as its Vice Chairman. The Executive Committee will have the Chief Secretary as its Chairman and the Secretary, Water Resources as its Vice Chairperson. These two tiers are at state level. River Basin Boards under the executive committee is constituted at the level of cluster of rivers. Four clusters of rivers with their total catchment area approximately equal shall be formed. Each cluster will have one Chief Executive of the River Basin Board. The Basin Management Committees below the river basin boards will be at the level of individual river basins. The overall organizational setup is schematically presented in Annexure 1. The Irrigation department of Kerala, which is the main institution under KWRD will be restructured now to fit within the organizational set up of proposed RBA. This restructuring of Irrigation department is expected to make a paradigm shift of 'asset creation' to 'natural resources management'.

## Constitution of Different Tiers of RBA

As discussed in the previous section, the RBA will be at the state level evolved from the Governing Council and the Executive Committee. The River Basin Boards and the Basin Management Committees are respectively at the level of the clusters of rivers and the individual rivers. The constitution of each of these tiers with the full list of members are discussed in this section.

### Governing Council

The Governing Council shall consist of the following members.

- (a) The Chief Minister, who shall be the Chairman;
- (b) The Minister for Water Resources, who shall be the Vice Chairman;
- (c) The Opposition Leader of the Legislative Assembly;
- (d) The Minister for Finance;
- (e) The Minister for Agriculture
- (f) The Minister for Environment and Forest;
- (g) The Minister for Rural Development;
- (h) The Minister for Panchayats;
- (i) The Minister for Urban Development;
- (j) The Minister for Revenue;
- (k) The Minister for Industries;
- (l) The Minister for Power;
- (m) The Minister for Fisheries;
- (n) The Vice-Chairman, State Planning Board;
- (o) Two members of the Parliament, representing the area of any of the two River Basin Boards, nominated by Government;
- (p) Three members of the Legislative Assembly, representing the area of any of the three River Basin Boards, nominated by Government;
- (q) The Chief Secretary, who shall be the Member Secretary of the Council

(r) Two representatives of Non-Governmental Organizations, who have substantial working experience in river basins, to be nominated by Government.

The term of office of the non-official members shall be three years from the date of their nomination.

## Executive Committee

The Executive Committee may consist of the following members.

- (i) The Chief Secretary, who shall be the Chairman of the Authority;
- (ii) The Secretary, Water Resources Department, who shall be the Vice-Chairperson of the Authority;
- (iii) Chief Executive officer, who shall be the Member Secretary of the Authority;
- (iv) Member Secretary, Kerala State Pollution Control Board;
- (v) Chief Engineer, Irrigation and Administration;
- (vi) Managing Director, Kerala Water Authority;
- (vii) Director, Groundwater Department;
- (viii) Director, Department of Environment and Climate Change;
- (ix) Chief Conservator of Forests;
- (x) Director, Agriculture Department;
- (xi) Director, Soil Survey and Soil Conservation Department;
- (xii) Member Secretary, Science and Technology and Environment Department;
- (xiii) Chairman, Kerala State Electricity Board Limited;
- (xiv) Executive Director, Center for Water Resources Development and Management.
- (xv) River Basin Board representatives

## River Basin Boards

3 to 4 River basin boards are to be constituted with each board having its Head Quarters in the respective region of the state. Each board shall have the following members.

- i. Chief Engineer, Irrigation Department who shall be the Chairman of the Board;
- ii. Superintending Engineer(s) of the Irrigation Department
- iii. Regional Officer, Kerala State Pollution Control Board;

- iv. Executive Engineer, Local Self Government Department;
- v. Executive Engineer, Kerala Water Authority;
- vi. District Officer, Groundwater Department;
- vii. PAO of Agriculture Department;
- viii. District Officer Soil Survey
- ix. District Soil Conservation Officer;
- x. Divisional Forest Officer;
- xi. Executive Engineer, Kerala State Electricity Board Limited;
- xii. Deputy Director, Fisheries Department
- xiii. Project Director, Rural Development Department
- xiv. Basin management committee representatives

It is expected to constitute three river basin boards. Mostly the river basin boards are supposed to function at regional level.

### Basin Management Committees

The basin management committee will have the following members.

- (1) Members of Parliament within the basin constituencies
- (2) Members of the LA within the basin constituencies
- (3) Heads of LSGIs within the basin
- (4) Representatives of all registered NGOs
- (5) District level officers of Irrigation, Agriculture, KWA, Groundwater, Forest, Soil Conservation, PCB and KSEBL
- (6) Representative of water user groups

A steering committee with 11 members may be elected in its first meeting. This committee can take decisions on adding more members to the basin management committee, if found required. For very large basins like Periyar, Bharathapuzha, Chalakkudipuzha, Pamba, Chaliyar etc, there will be basin management committees at their sub basin level.

### Powers, Functions and Responsibilities of Different Tiers

Each tier of the River Basin Authority of Kerala will have different powers, functions and responsibilities to accomplish its ultimate aim of strategic basin planning within IWRM framework. Each tier must have statutory powers as an overarching mechanism for effective co-ordination and regulation of the projects and programmes undertaken by the various Government Departments and Agencies as part of the strategic basin plans. Monitoring of these projects and programs are also

the responsibility of river basin authority. Important powers, functions and responsibilities at each level are discussed below.

### Powers, Functions and Responsibilities of Governing Council

The governing council shall be the apex body for the coordination, convergence and integration of policies and programs. Its key functions include:

- (a) Institutional set up for the overall integrated conservation and management of rivers of Kerala and their basins and all water bodies therein;
- (b) To approve River Basin Plans submitted by the Executive Committee,
- (c) To monitor the progress and outcomes of the implementation of the River Basin Plans;
- (d) To formulate and recommend policies and projects as and when necessary for sustainable development of water resources and scientific management of eco-systems with special reference to the aquatic eco-system;
- (e) To lead the communication campaign and monitor the activities related to awareness creation and behavior change among the public and ensure the participation of all stakeholders concerned;
- (f) To recommend to the Government on the inter-basin and intra-basin water transfer and allocations
- (g) To oversee the inter-state agreements; and
- (h) To do such other things as may be incidental or conducive to the efficient management, protection and conservation of the river basins.

### Powers, Functions and Responsibilities of the Executive Committee

The Executive Committee will have the following functions.

- (a) Subject to the general guidance of the Governing Council, the management of the regular affairs of the Authority.
- (b) To function as the organization for the coordination, convergence and integration of policies, and programs.
- (c) To build institutional set up for the overall conservation and management of rivers of Kerala and their basins, including all water bodies;
- (d) To approve River Basin Plans prepared by River Basin Boards and co-ordinate the activities of the River Basin Boards;
- (e) To prepare, implement and monitor river basin plans for rivers where separate boards are not formed;



- (f) To integrate basin plans into the overall framework of IWRM and to recommend specific measures and programs for conservation and management of water resources of the State
- (g) To monitor the progress and outcomes of the implementation of the River Basin Plans and ensure that different projects and programs fit into the basin priorities;
- (h) To monitor the projects and programs of Government Departments and Agencies and ensure that they are in consonance with IWRM based River Basin Plans;
- (i) To recommend sustainable abstraction limit for the rivers
- (j) To scientifically assess the environmental flow (e-flows) needs of each basin
- (k) To ensure that e-flows as per the scientific assessment are maintained in the river basins
- (l) To ensure Eco-DRR (Ecosystem based Disaster Risk Reduction) principles in the river basin plans
- (m) To ensure real time integrated operation of reservoirs in the basin
- (n) To resolve water disputes and conflicts in the River Basins through conciliation;
- (o) To ensure the effective measures to prevent water pollution, recommend measures on the basis of "polluter pays principle" and adopt measures to mitigate and manage water related disasters;
- (p) To tax, tariff and levy charges, receive funds, borrow and to administer and manage its funds and finance River Basin Boards in such manner and subject to such terms and conditions as may be prescribed;
- (q) To call for data, records, etc. from Government Departments, Agencies, Boards, Catchment Area Management Committees, etc.
- (r) To design and roll out effective communication strategy and campaigns for the conservation of rivers;
- (s) To ensure that the projects proposed and activities carried out by the Boards are in conformity with the State objectives under interstate agreements and awards;
- (t) To recommend to the Government on the inter-basin and intra-basin water transfer and allocations, and to function as an appellate body on the decisions of the River Basin Boards;
- (u) To do such other things as may be incidental or conducive to the efficient management, protection and conservation of the river basins and to perform such other functions that may be necessary to carry out such other duties as may be assigned from time to time, by the Government, for the purpose of sustainable development of the basin.

## Powers, Functions and Responsibilities of River Basin Boards

The River Basin Boards will have the following functions.

- (a) To prepare river basin plan in consonance with IWRM principles;
- (b) To carry out activities under the basin plan, adopting a decentralized approach;
- (c) To design and implement basin plan in such a way to ensure e-flows for meeting the ecological and other functions;
- (d) To integrate and co-ordinate development works carried out by various departments and agencies within the River Basin Area;
- (e) To design and develop an integrated data network and a Decision Support System (DSS) for the river basins;
- (f) To determine and regulate water rights, water sharing, and water transfer both inter and intra basin levels;
- (g) To redress the disputes on water related issues within the jurisdiction of the River Basin Board and to refer to the Authority such issues which could not be resolved at their level;
- (h) To take measures, including penal or otherwise, to prevent water pollution, encroachment and any other activities that may adversely affect the health of the river basin;
- (i) To take measures to mitigate and manage water related disasters and to coordinate its activities with the Disaster Management Authority
- (j) To carry out Environment Impact Assessment of the new projects proposed
- (k) To carry out Benefit Cost Analysis of the newly proposed projects by incorporating ecosystem valuing principles;
- (l) To protect and maintain the ecosystem of the Rivers and River Basin areas coming under the respective River Basin Boards;
- (m) To design and roll out effective communication strategy and campaigns for sustainable management of the river basin;
- (n) To ensure participation and stakeholder engagement right from the preparation of basin plans to its implementation;
- (o) To manage funds and utilize it effectively for the development of riverbasins;

(p) To do such other things as may be incidental or conducive to the efficient administration, protection and conservation of the Rivers

## Powers Functions and Responsibilities of Basin Management Committees

The basin management committees will have the following functions.

- (1) To plan programs and projects at sub basin level;
- (2) to collect baseline data and inventories;
- (3) to support the Board in the preparation of basin plan;
- (4) To monitor implementation of basin plan;
- (5) To monitor water quality;
- (6) To implement selected components of basin plan through community contracting;
- (7) to mobilize community participation initiatives for enforcement of pollution control in the basins;
- (8) to carry out communication campaign with specific focus on direct contact programs;
- (9) to operate and manage bank account through which financial transactions of basin management committees are made;
- (10) to perform such other functions and duties as may be assigned, from time to time, by the River Basin Boards.

## Funds, Accounts and Other Matters

For the functioning of the River Basin Authority, a separate 'State River Basin Authority Fund' may be established. This fund may be empowered to receive grants from the State as well as Central Governments. The river management fund maintained by the district collectors shall be merged with this fund. The contributions made to the river basin authority by any person, body, or Government Departments, Organizations or Non-Governmental Organizations shall be credited to this fund. Authority may be empowered to borrow loans for the fund with the approval of Government for discharging its functions. Any amount collected as fees and other charges levied may also be pooled to this fund. Sale proceeds of silt from reservoirs and income from any other source are all to be pooled in this manner. The accounts of the river basin authority shall be audited, and the Annual Report and Audit Report must be presented before the Legislative Assembly.

## Concluding Remarks

This approach paper has discussed only the essential components of RBA. A detailed study in this line will have to be commissioned. The study may be entrusted to external agencies like IIM or any other international consulting agencies having expertise in this area. This has already been suggested in the draft water sector plan prepared based on PDNA recommendations. Therefore, the way forward is to commission a study in this line and move accordingly.

# Annexure 1

## Organizational Setup of River Basin Authority

