

#### 7.1 Conclusion

Maharashtra is a water stressed State and depends heavily on rainfall and the vagaries of monsoon cause frequent drought in many areas of the State. The Water Resources Department (WRD) established five Irrigation Development Corporations (IDCs) for effective management of the available water resources in the five river basins in the State.

The State Water Policy of 2003 envisaged formation of River Basin Agency (RBA) for each river basin which were to be responsible for preparation of integrated river basin plan. However, the IDCs, which were designated as RBAs, did not prepare the river basin plans thus, leading to non-preparation of the State Water Resource Plan (SWRP) for planning and development of water resources in the State. In the absence of SWRP, the clearance to the irrigation projects granted by Maharashtra Water Resources Regulatory Authority (MWRRA) failed to address the fragmented and isolated approach to surface and ground water development. The need for prioritising the irrigation projects emphasised from time to time through Governor's Directives and recommendations of High Power Committee and Planning Commission was not followed leading to thin spreading of financial resources among many projects, time and cost overruns and delay in creation of the envisaged irrigation potential (IP). The WRD was saddled with 601 ongoing projects as on June 2013 and their estimated balance cost (₹ 82,609.64 crore) was nine times the capital grant of WRD for the year 2012-13.

Projects were taken up without proper surveys, environment and forest clearances, acquisition of requisite land and non-rehabilitation of project affected persons as a result, there was enormous increase in the cost of the projects and delays in their completion as well. There were several instances where the Manual provisions and contract terms and conditions were violated resulting in granting of undue benefits to the contractors and incurring of avoidable extra expenditure.

The Dam Safety Organisation (DSO) did not follow the criteria for selection of dams for test inspections. At the end of March 2013, 348 large dams (out of 1,171) remained uninspected for more than 10 years. Compliance to deficiencies pointed out by DSO was poor. There were instances where dam works were continued by the Construction Divisions despite issuance of Red Inspection Slips by the Quality Control Divisions, signifying immediate stoppage of works.

As against 48.26 lakh ha of IP created, the IP utilized was only 32.51 lakh ha *i.e.* 67.36 *per cent.* The poor utilisation of IP was due to inadequate maintenance of dams and canals, siltation, inefficiency in canal conveyance, incomplete command area development works, supply of water to perennial crops requiring more water *etc.* The cropping pattern planned at the time of project planning and the actual cropping pattern followed in Ujjani major

project revealed wide variations that adversely affected the efficiency of water use.

The monitoring and internal controls in the WRD was weak. There was no well defined system of granting Administrative Approvals and Revised Administrative Approvals to the irrigation projects by the IDCs. As a result, a large number of projects were approved and implemented in the non-backlog districts in violation of the Governor's directives. The Governing Councils of the IDCs did not hold the requisite number of monthly meetings during 1996-2013, in violation of the IDC Acts. The Management Information System was also poor due to discrepancies in various reports prepared by the WRD.

The MWRRA did not determine the sectoral allotment of water, though empowered under the MWRRA Act, 2005, for a period of six years from its establishment. The MWRRA also did not determine the priority of equitable distribution of water during periods of scarcity.

There was significant increase in the arrears of water charges (70 per cent) for irrigation and non-irrigation purposes during 2007-13.

## **7.2 Recommendations**

The Government may:

- give priority to preparation of river basin-wise plans as well as formulation of State Water Resource Plan for ensuring better management of water resources;
- avoid spreading out of resources and prioritise funding of projects so that they are completed in time, reduce escalation in time and costs and provide the benefits planned for;
- ensure that scope of the irrigation project is determined after adequate survey and design approval and work commences only after acquisition of required land, rehabilitation of project affected persons and forest/environmental clearances;
- ensure that estimates for works are prepared using the relevant Schedule of Rates with due consideration to the available exemption of duties and taxes;
- ensure that system of contract management is robust and works are executed in accordance with the Manual provisions and contractual terms and conditions;
- make efforts to bridge the gap between the irrigation potential created and utilised by focusing on command area development works, carrying out timely repairs and maintenance of irrigation projects and allocating adequate funds for the maintenance of created assets;

- formulate suitable selection criteria for periodical inspection to maintain the health of the dams. It also needs to be ensured that required manpower and funds are allocated to the Quality Control Organisation so that shortfalls in inspection of dam works are eliminated;
- ensure that the arrears in collection of water charges are liquidated at the earliest, correct tariffs are applied for determination of water charges and the conditions for grant of concessions in water charges to the industrial users are duly complied with; and
- ensure that data on irrigation potential created and utilised, water storage in dams, usage of water for various purposes, evaporation losses from dams *etc.* are accurate.

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