

Chapter 9: Conclusions

Clean, safe and adequate fresh water as mentioned earlier is vital to the survival of all organisms and the smooth functioning of key systems, entities and economies. Water based eco-systems provide a diversity of services vital for human well-being and poverty alleviation. The delivery of fresh water is a particularly important service both directly and indirectly. Water pollution and contamination weakens or destroys natural eco-system that supports human health, food production and bio-diversity. Polluted water can lead to serious problems with diseases and death of humans, animals, plant and vegetation. Water pollution in the 14 major and 55 minor and several hundreds more rivers of India is a serious problem. Millions of litres of sewage, industrial and agricultural waste are discharged into these rivers. At present only 10% of the waste water generated is treated. Similarly lakes and ground water are under severe threat from the impact of pollution. The cost of penalty is far cheaper than the cost of prevention of pollution. There are no effective deterrents for the polluters. Although the concerns relating to water pollution have been addressed in the National Water Policy and National Environment Policy in India both at the Centre and State, the resources available for prevention of pollution, treatment of polluted water and ecological restoration of polluted water-bodies are woefully inadequate.

The absence of a comprehensive inventory of rivers, lakes and keystone species associated with them adversely impact the quality of planning. MoEF, CPCB and States failed to carry out the comprehensive identification and quantification of human activities which were a serious threat to the water quality and the different sources which affect the water quality in rivers, lakes and ground water. No agency in the country has assessed the risk of polluted water to health and environment. MoEF is yet to adopt the basin level approach for control of pollution of rivers and lakes except in the case of the Ganges where a beginning has been made. It is yet to also develop water quality guidelines and corresponding parameters for each river and lake.

Inclusion of rivers and lakes into the National River Conservation Programme and the National Lake Conservation Programme was flawed and the States failed to take a comprehensive survey to measure pollution level in rivers, lakes across the country on the basis of which the decision regarding inclusion should have been made. Further neither MoEF nor the States have introduced any programme to prevent pollution of ground water. They have also not addressed the concerns of pollution from agricultural sources.

The implementation of NRCP and NLCP both at the Centre and State left much to be desired. DPRs were not adequately prepared. MoEF failed to get the DPR vetted by technical experts. The monitoring of implementation of the projects by MoEF/CPCB and the States was ineffective. The implementation of the projects at the level of the States also suffered from delays, cost escalations and poor quality work. There was no maintenance of assets after creation. The continuous monitoring of the quality of water after the planned intervention was also missing. The poor monitoring and the failure to establish a network to track pollution of water in rivers, lakes and ground water, failure to update and define water quality parameters, absence of database, poor dissemination of data are all indicators of an

inadequate system to support such a vital activity. In spite of these programmes being implemented for over two decades there has been no discernible effect on the quality of water both in rivers and lakes. All the rivers test-checked continue to be plagued by the high levels of organic pollution, low level of oxygen available for aquatic organisms and bacteria, protozoa and viruses which have faecal origin and cause illness. The lakes in India continue to be under threat from nutrient overloading which is causing their eutrophication and the eventual choking up by various weeds proliferating in the nutrient-rich water.

The funds available for control and prevention of water pollution and restoration of polluted water are inadequate. This situation is further aggravated by poor financial management in the implementation of projects. MoEF and the States need to exercise greater oversight over utilization of funds to ensure that funds are spent timely and for the purpose it was sanctioned.

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