## Governance of water: institutional alternatives and political economy

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The water crisis in India can no longer be described as 'potential' or 'looming' or 'impending.' It is real, and it is staring us in the face. Water availability has been steadily falling with increasing population, intensifying agriculture, and expanding industry. From 6000 cubic metres per capita in 1947, the availability fell to 2300 cubic metres in 1997 and to 1700 cubic metres in 2007. Future projections indicate that it would drop further to 1500 cubic metres in 2025 when we would enter the 'water stressed' category and to 1100 cubic metres in 2050, which is the 'water scarce' zone. Parts of the country are already there. Besides the shortage of drinking water in all our cities and towns, there are serious quality problems. Despite huge investments in the rural water supply programme, the number of villages not covered in the programme keeps on increasing every year, and water-borne diseases have become endemic. Notwithstanding its immense contribution in achieving food self-sufficiency, the glaring inefficiencies of the irrigation sector have now rendered it technically and financially unsustainable, and groundwater depletion has reached alarming proportions. Inter-regional and -sectoral conflicts are becoming more frequent. Unfortunately, the existing policy framework and institutional structures are unable to come up with

adequate responses. There is a parallel crisis of governance.

In this context, Governance of water is not only extremely relevant but is also a timely publication. This volume with contributions from some of the most eminent water experts is the outcome of a symposium organized by the Institute of Rural Management, Anand, or IRMA, in 2004. It seeks to focus on a wide range of issues, including policy, economics, management, and institutions in the irrigation sector in order to 'set an agenda for future debate among policy-makers, practitioners, and academics'. The underlying theme running through all the essays is that the challenges facing water governance cannot be addressed without a paradigm shift in approach. In fact, Ramaswamy Iyer, while making a strong case for a transformation in water policy, argues that this can only be brought about by what he describes as 'water wisdom' - an almost theological concept which requires education and social mobilization.

From the policy perspective, many of the authors agree that the paradigm shift calls for a reorientation from 'water resource development' to 'water resource management'; from supply-side emphasis to demandmanagement initiatives; from a predominantly technocratic administrative apparatus to a

multidisciplinary one; and from a command-and-control regime to a multistakeholder participatory process. In this transformation, the debate between water as a 'common resource' or an 'economic good' and the associated concepts of the 'right to water' as opposed to '(tradable) water rights' become relevant and need to be addressed. The general consensus seems to favour a middle ground where both attributes have to be incorporated in finding sustainable solutions. The role of water markets and private sector participation has also been discussed, although without any clear agreement on how best to incorporate these elements in the new paradigm.

In what can be termed as a pragmatic formulation for action, Raju and Gelatin make a cogent argument in their paper 'Pricing, subsidies and institutional reform in Indian irrigation' that reform is, in fact, a win-win situation for farmers and policy-makers (though not necessarily for a water bureaucrat) because it can align with both their eco-political interests. This would provide for greater autonomy to the irrigation authority, involve the farmers in decision making, lead to the establishment of a regulatory authority, and make the system more transparent. Eventually, such governance structure would make for greater physical and financial sustainability. It is indeed reassuring that some states like Andhra Pradesh and Maharashtra have taken the initiative in this respect.

Although over 50% of irrigation water requirements and 70% of drinking water requirements are met by groundwater, there is virtually no effective regulation of extraction. The legal framework governing ownership of water, particularly groundwater, is extremely ambiguous and is subject to property rights over land. In addition, generous subsidies on electricity and diesel encourage the overexploitation of groundwater, which has become a serious economic and ecological issue in several parts of the country. While Vishwa Ballabh and others in their paper make

out a case for promoting competitive groundwater development for boosting agricultural production in eastern India where water tables are high, Anjal Prakash advocates developing an alternative ecological framework for groundwater governance, based on his Gujarat study, which would be applicable to other water-stressed regions as well. On the other hand, Tushaar Shah's comparative analysis of South Asia, China, and Mexico, where agriculture, food, and livelihoods depend heavily on intensive use of groundwater, concludes that the existing policies and institutions are becoming unsustainable. However, while China (and Iran) has been able to regulate tube wells, Mexico is finding it difficult to ban new wells, but in India, the political structures and systems pre-empt even a serious debate amongst policy-makers. This seems to be an overstatement because some states have tried to legislate groundwater regulation, although with little success. It is perhaps necessary to conduct more research at that level to determine the reasons for ineffective implementation.

The studies by Esha Shah and Vishal Narain on the issue of people's participation in water management throw up useful insights into the dynamics of civil society institutions. Based on a study of tank irrigation associations in Karnataka, Shah concludes that the politics governing water management is a 'mixed game' between the state and civil society, which is partly conflictual and partly cooperative. On the other hand, Narain's analysis of canal irrigation associations stresses the role of technological choice and interface with local government structures as being the determinants of the effectiveness of PIM (participatory irrigation management) and WUAs (water user associations). Such studies would be useful inputs for developing capacity-building programmes.

It is well known that a great deal of the burden of meeting domestic water needs is borne by women, particularly in rural areas. However, in a perceptive analysis, Kulkarni, Joy, and Paranjape argue that women, in fact, play a central role in natural resource management. Further, water is not just another input into agriculture but is an 'independent productive resource on par with land, which has the potential of challenging the power equation at all levels'. It is, therefore, necessary to develop a synergy between the concerns of gender and that of the water sector whilst considering reforms.

The paper on inter-state water disputes by Padihari and Vallabh provides an overview of this complex issue and points to the legal deficiencies in the legal process and the various extraneous factors that make conflict resolution difficult. It calls for the establishment of a permanent monitoring body and involvement of civil society in the process. However, the fact that political considerations far outweigh either the technical or the economic settlement of such disputes would require a consensus at a different level, which so far has been elusive.

Undoubtedly, this book provides a wealth of information and analysis and is a significant contribution to our understanding of several of the fundamental issues involved in water governance. It deserves to be read not only by academics but also by policy-makers, administrators, and indeed, by all concerned citizens.