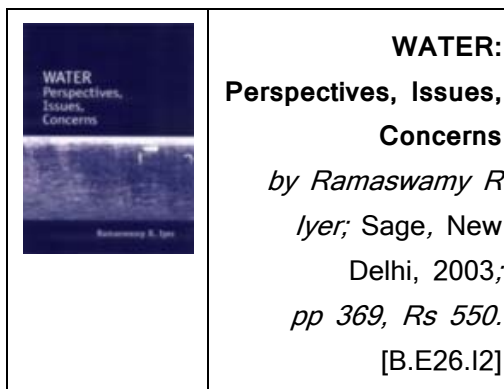


Managing Water

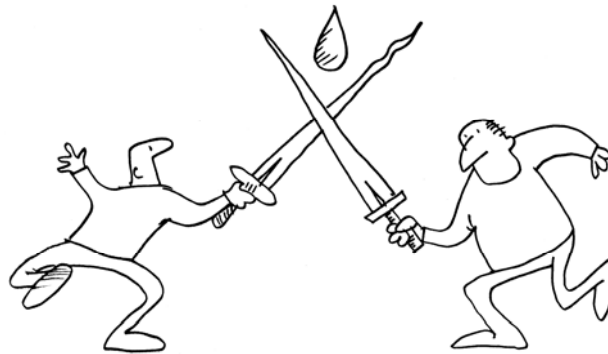
A Vaidyanathan



The widespread interest in water related issues among 'experts', policy-makers and the citizenry is a welcome trend. Rational and informed public discussion of the issues involved is essential to help arrive at a reasonable compromise between the compulsions of proper (i e, efficient and sustainable) management of the resource and an equitable balancing of competing interests. This however calls for (a) an appreciation of the technical problems involved in developing and managing water resources in an efficient and equitable manner; (b) awareness of the legal and institutional framework in which these tasks are supposed to be addressed; and (c) an understanding of the limitations of this framework and the problems experienced in implementing them. These desiderata are not met in the current public discourse on water partly because of the inherent complexity of the issues but largely because of the dearth of adequate and reliable information on these aspects in the public domain. Ramaswamy Iyer's collection of essays is significant contribution to filling these lacunae.

lyer is eminently qualified for this task: He has a wealth of first hand knowledge and experience of government policy-making and implementation as secretary to the ministry of water resources. He has since become increasingly disenchanted with the current strategy and Besides being informative, the essays are remarkable for explaining key issues in a language that is comprehensible to the non-professional lay audience.

The essays, divided into six sections, cover the following broad themes: The constitutional and legal framework defining the role and powers of government and the nature and content of 'rights' over water (chapters 1 and 7 to 10); issues relating to planning and management of water resource projects (chapters 4 to 6 and 13); mechanisms and procedures of dispute settlement and the manner in which they have worked (or rather failed to work) in selected specific cases (chapters 2, 3, 19 and 20); critique of large dams (chapters 11, 12, 14, 15 and 16); and reflections on future directions (chapters 21-26)



Legal Framework

The legal framework consists of (a) provisions regarding the powers of the state in relation to water resource development and their distribution between tiers of government; (b) the nature of and basis for the rights of different claimants over common sources of water; (c) the principles, mechanisms and procedures for resolving disputes.

The constitutional provisions are fairly well known: 'Water' is listed as a state subject. The centre is however empowered to (a) take measures to ensure integrated development of interstate rivers, (b) adjudicate disputes between riparian states; and (c) intervene in the interests of environment protection. Iyer refers to the various enactments of the centre under these provisions: These include the River Boards Act, the Interstate Water Disputes Act, and parliamentary legislations relating to environmental protection, forest conservation, wildlife protection and pollution control. The centre also intervenes on the basis of its powers in respect of national economic and social planning, hydropower development and international rivers. These, together with the fact that a substantial part of states' development plans are funded by central assistance, have given considerable scope for the centre to review priorities and projects for water resource development in the states. However, as Iyer points out, the centre has been hesitant to use its powers.

The principles for determining the relative claims of different segments of a river basin are not specified in any central (or state) legislation. Internationally the notion (called the Harmon principle) that people and communities can claim use rights on the basis of sovereignty or prior appropriation has given place to the idea that allocation of a basin's water resources should be guided by the principle (called the Helsinki rules) of 'equitable apportionment for beneficial use' for the common benefit of all its people. Though India has formally accepted the latter, it is not incorporated in any central or state law. On the other hand many

of the tribunal awards on sharing of interstate rivers tend to adopt a combination of the two principles.

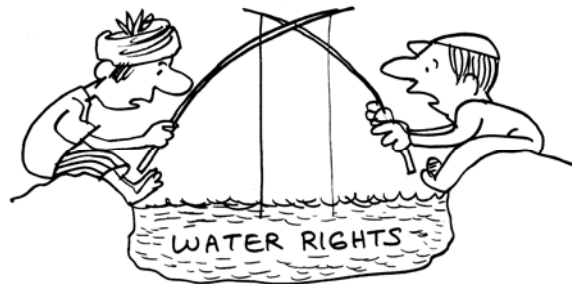
On the other hand state governments have their own laws and regulations concerning the rights of individuals and communities to exploit water resources. The impoundment or diversion of stream flows can be done only by the government or with its explicit permission. This is premised on the state's assumption of the right of eminent domain or absolute ownership rights over water resources. Iyer refers to this but does not discuss in any detail the basis or justification for these presumptions. One would have thought that the role of the state is that of a trustee of water resources and that its power to regulate their use must be related to and contingent upon promoting common good.

Other important lacunae referred to by Iyer include the absence of any legal recognition of the community as an entity for water resource management; the status of customary rules and practices as against statutory law legislated by the government; and the fuzziness of water rights. Thus the 73rd and 74th constitutional amendments list local water development and management among the functions of panchayats and nagarpalikas. But there is no legislation clarifying the relative roles of the local bodies and the state governments.

The nature and content of 'rights' and entitlements of various claimants remains very fuzzy. Individuals, communities and water users associations are accorded only use rights. These rights are linked to ownership/possession of land and in the case of groundwater allow practically unlimited exploitation. Entitlements for surface water are subject to certain specified restrictions, either in recognition of tradition and custom or on the basis of their inclusion in the command of an irrigation system. But the right holders cannot hold the state accountable for failing to meet their entitlements partly because the content of these rights are

seldom spelt out clearly. In fact the courts have upheld the right of the state to alter entitlements conferred on users, as it likes. Iyer rightly draws pointed attention to the fact that law and practice recognises only users' entitlements to water but is silent on the claims and concerns of other stakeholders (especially those adversely affected by water resource development); and on the concept of water rights as fundamental right as derived from a fundamental right to life hardly helps to clarify the nature and content of rights.

His



suggestions for reform - moving away from bureaucratic regulation, dissociation of water rights from land rights, decentralised community control and regulation of water and encouragement of water markets - reflect a deep concern for equitable distribution. While there is a strong case for the first three both on grounds of equity and efficiency, the scope for decentralisation is more limited than its protagonists recognise. The feasibility of water markets based on tradable rights is not only doubtful but its desirability in terms of ensuring equitable distribution and sustainable use of water is open to serious question. This reviewer is sceptical of even the rather hesitant endorsement of the idea of privatisation by Iyer.

Dispute Settlement

Conflicts and disputes over water are pervasive. They occur between uses and users drawing supplies from a common

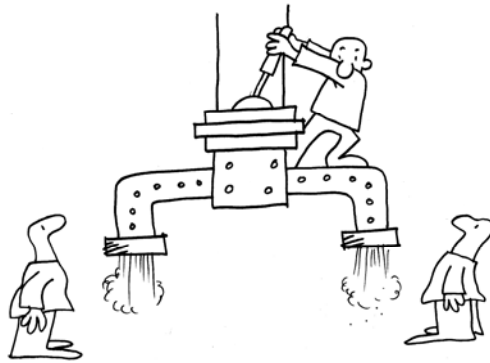
source - within the command of individual tank, barrage or large reservoir, as well as between the command areas of different interrelated systems in a river basin or sub basin. There are also disputes over sharing of waters of a river basin between its different segments. The impression is widespread that the mechanisms and processes of dispute settlement are far too weak and ineffective. But there are few careful and properly documented studies of these aspects. Iyer provides an excellent review of the law and the institutional mechanisms for dealing with interstate and international disputes and their varying effectiveness in dealing with specific disputes.

The Interstate Water Disputes Act passed by Parliament in 1956 spells out the modalities of adjudication of such disputes under the auspices of the central government. Iyer notes that initially it was relatively effective: the awards of the Krishna, Godavari and Narmada tribunals, appointed under the act, for sharing their waters was accepted by their respective riparian states as binding. Over time, however, a whole lot of difficulties have cropped up. Inordinate delays in the process of adjudication, and seeking clarifications on the awards and their notification, disputes over implementation and an increasing tendency on the part of disputants to contest tribunal awards and show their reluctance to accept and implement the awards - have weakened this mechanism. The centre has been increasingly reluctant to invoke the authority under this act.

Water conflicts

Iyer argues that while negotiated settlements are an option, it is not necessarily better or more effective than adjudication: both face problems arising from lack of guidelines, technical complexity and sanctions to ensure implementation. In any case, as he rightly points out, nothing prevents negotiation in parallel with adjudication. He is of the view that some changes in the law - such as setting clear time limits for tribunals to come a decision; allowing appeal to Supreme Court; and

stronger sanctions (such as granting contempt power to the tribunals) against non implementation of their award might give greater flexibility and stronger incentives for compliance. Creating space and encouraging non-judicial avenues (arbitration, mediation and negotiation) are desirable and should be given greater attention. However, the problem is bigger and deeper than one of procedures. None of them will be effective unless there is a general agreement on the principles of 'fair' water sharing and a willingness to abide by the results of an award or an agreement based on those principles arrived at after due process.



These difficulties have also stalled moves towards integrated basin resource development to serve the common good of all the claimants of these resources. Iyer points out that the idea of basin planning is widely accepted as desirable. In India the Damodar Valley Corporation was an early attempt to implement this concept, but failed. The River Boards Act of 1956 was rather anemic in that it sought to establish only advisory boards without any authority on **DEVELOPMENT** planning or management. No boards have been set up under the act. Ad hoc authorities created in a few basins outside of this act have proved to be ineffective. Even as the issue has

resurfaced in the context of, among others, discussions on the National Water Policy and the Irrigation Commissions (of 1972, and 1998), strong resistance from states apprehensive of their erosion of their 'sovereignty' and powers have impeded any significant movement to implement the idea.

Water Resource Planning

These and other aspects of water resource policy and implementation are discussed at some length. Though a state subject, the centre has played a significant role, well beyond its powers under the Constitution, to shape programmes and policies in this sector. The size and composition of allocations for irrigation and water supply projects for all states are subject to review and approval by the national Planning Commission. Inclusion of all major and medium surface irrigation projects in the plan is subject to approval by the Technical Advisory Committee of the central government.

More recently, central clearance under national environmental and forest protection laws. Major new initiatives, like Command Area development and National Water Management, were taken up at the instance of the centre. State irrigation finances were subject to review by the national Finance Commission.

The National Water Policy of 1988, again a product of central initiative, was an attempt to forge a consensus, based on widespread consultations between the central and the state governments, NGOs and non-official experts, about the
 Water conflicts



need to take a broad view of water

development policy covering all sources and uses of water, the rights of those displaced by projects, adoption of an integrated multi-disciplinary approach to planning, sustainability and equity cost recovery.

The evolution of water policy at a formal level clearly reflects an attempt to address the changing nature of concerns over priorities and strategies of water resource development. However, as Iyer points out, it has not had a significant impact on the way projects are planned, screened, implemented and managed. His discussion of these aspects, though not detailed or comprehensive, highlights the fact **that despite central scrutiny and review projects continue to be poorly designed, marked by huge cost and time over runs, and their potential underutilised. It has not prevented states from taking up projects without approval of the Planning Commission or following financially ruinous policies in respect of water pricing. Projects are poorly maintained; water is used wastefully, inefficiently without serious concern for sustainability or the environment.** One would have like to see a fuller discussion of these issues.

Large Dams

That Iyer's perspectives on water resource development and his ideas on appropriate future strategy have undergone a marked change is evident in



the section on large dams (Section IV) and on ‘Looking at the Future’ (Section VI). This change, already incipient from his experience in office, grew stronger during his intensive involvement in the Narmada controversy and the work of the World Commission on Dams.

The Narmada Bachao Andolan’s mass mobilisation against the Sardar Sarovar project focused public attention on the serious deficiencies in the way huge and complex projects calling for massive expenditures of public resources are planned, approved and implemented. Adequate information on the project scope, design and costs has not been made available to the public; costs are underestimated and benefits exaggerated; the magnitude of displacement, submergence of forests and agricultural land and other adverse effects are grossly underestimated; affected people are not informed much less given an opportunity to articulate their concerns and given assurance that adverse impacts affecting their livelihood and habitats will be minimised and unavoidable losses be assessed fairly and compensated fully.

Iyer’s account of the course of the Sardar Sarovar case leading unto the Supreme Court judgment is exemplary for its informative value, highlighting the issues involved, the manner in which the court handled them and the eventual judgment it delivered in the case. It is one of the best, and most balanced, account that this reviewer has come across and deserves to be commended as much for the clarity of his presentation as for his courage in writing it.

As member of the task force set up by the World Commission on Dams to assess India’s experience with large dams further reinforced his scepticism about the contribution of large dams to increasing agricultural production and concern about the tendency

to underrate, and even ignore, their adverse consequences by way of displacement and dislocation of people environmental degradation and ensuring sustainable water use.



While strongly committed to the need for an integrated approach to planning and management of water as visualised in the National Water Policy, he comes out strongly in favour of a drastic reorientation of strategy away from large reservoirs and canal systems to promoting small, decentralised, community-based rainwater harvesting and watershed development. He argues this position forcefully but in my view, far from convincingly.

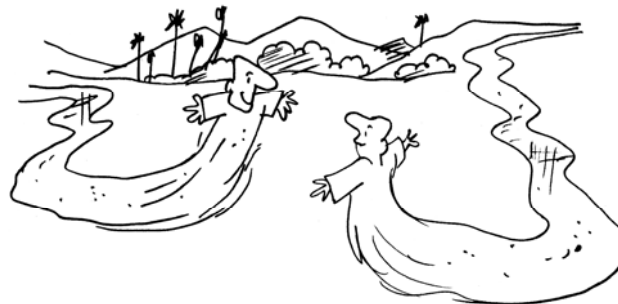
Development Priorities

Increasing the quantum, seasonal duration and assurance of water supply for agriculture is crucial to sustained growth of food and fibre production to support a rapid overall growth in the economy. Since independence the volume of water utilised from all sources is estimated to have increased from 220 bcm to over 500 bcm.

It is true that traditional water harvesting works have been neglected and inadequate attention given to improving and extending them. There can be little disagreement about the desirability of giving more, much more, attention and resources to community-based watershed development to make fuller, more effective use of local rainfall. However, even if rainwater harvesting and integrated watershed development had been done efficiently and on a massive scale, it is unlikely that they could increase water availability from surface sources on the scale realised so far and likely to be required in the future. Large storages therefore have an essential and important role to play.

Water conflicts

This does not however mean that the programme for construction of more large projects should continue on the scale visualised in plans. It certainly argues strongly against mega projects like inter-linking of rivers: Not only are they technically and economically dubious, but are being pursued



without any proper scrutiny or public discussion. They are

a red herring that seriously detract attention from the more important and massive task of putting existing facilities and half complete projects to better use. (Iyer comes out clearly against the interlinking project on these grounds.) On the other hand, there is in fact a case for reviewing commitments on projects under construction especially those which will take a large amount of resources to complete. The emphasis should be much more on improving the efficiency of water use in existing projects (but reducing waste) and getting more output per unit of water (through better management) for both of which there is a large scope, much larger than is realised by planners.

Integrated basin planning and management of water and participatory management are mentioned without much discussion of the recent reform initiatives and their impact. Policies to promote prudent and efficient use of available water, the problems of arising from water pollution and measures to control it hardly figure in the essays. Iyer seems to consider privatisation and water markets as promising ways to improve water use efficiency. The arguments opposed to privatisation - on grounds of that it is not feasible, that it will lead to inequitable distribution and that it will pay scant regard to issues of sustainability and water quality - are not discussed. The collection would be richer and give a more rounded picture of this complex subject if these issues had also been dealt with more extensively.

Even so, Iyer's essays provide a wealth of material on various aspects of water resource development, the problems involved and the manner in which they are being addressed and the important issues that need to be addressed to ensure equitable and sustainable use of this vital and valuable resource. ▶

DEVELOPMENT