

‘Million Revolts’ in the Making

Water conflicts in India have now percolated to every level. They are aggravated by the relative paucity of frameworks, policies and mechanisms to govern use of water resources. This collection of articles, part of a larger compendium, is an attempt to offer analyses of different aspects of water conflicts that plague India today. These conflicts, scale and nature, range over contending uses for water, issues of ensuring equity and allocation, water quality, problems of sand mining, dams and the displacement they bring in their wake, trans-border conflicts, problems associated with privatisation as well as the various micro-level conflicts currently raging across the country. Effective conflict resolution calls for a consensual, multi-stakeholder effort from the grassroots upwards.

**BIKSHAM GUJJA, K J JOY,
SUHAS PARANJPE, VINOD GOUD,
SHRUTI VISPUTE**

What a marvellous sight it is to watch your
secular regimes wagging their tail!
You will draw water upstream
And we downstream
Bravo! Bravo! How you teach
chaturvarnya even to the water in your
sanctified style!

– Namdeo Dhasal, *Golpitha*, 1972
translated from Marathi by Dilip Chitre¹

Water Conflicts: The Context

Rivers should link, not divide us” said the Indian prime minister Manmohan Singh while inaugurating the conference of state irrigation ministers on December 1, 2005.² He expressed concern over interstate disputes and urged state governments to show “understanding and consideration, statesmanship and an appreciation of the other point of view”. Ponnala Laxmaiah, irrigation minister of Andhra Pradesh, returned from the meeting only to be hauled over the coals the next day by Janardhan Reddy, his party senior, over the so-called Pothireddy Padu diversion planned to divert water to chief minister Y S Rajashekar Reddy’s native district.³ MLAs from his own party in the Telangana region have declared that they will oppose this water

diversion to the end. Water conflicts, not water, seem to be percolating faster to grassroot levels!

Water conflicts in India now reach every level; divide every segment of our society – political parties, states, regions and sub-regions within states, districts, castes and groups and individual farmers. Water conflicts within and between many developing countries are also taking a serious turn. Fortunately, the “water wars”, a chance remark by the UN secretary general that later became a media phrase, forecast by so many, have not yet materialised. War has taken place, but over oil, not water. Though water wars may not have taken place, water is radically altering and affecting political boundaries all over the world, between as well as within countries. In India, water conflicts are likely to worsen before they begin to be resolved. Till then they pose a significant threat to economic growth, social stability, security and health of the ecosystem and; the victims are likely to be the poorest of the poor as well as the very sources of water – rivers, wetlands and aquifers.

Conflicts might sound bad or negative, but they are logical developments in the absence of proper democratic, legal and administrative mechanisms to handle issues at the root of water conflicts. Part of the problem stems from the specific nature of water like (i) water is divisible and amenable to sharing; (ii) it is a common pool resource; moreover, one unit of water

used by one is a unit denied to others; (iii) it has multiple uses and users and involves resultant trade-offs; (iv) exclusibility is an inherent problem and very often exclusion costs involved are very high; (v) it involves the issue of graded scales and boundaries and need for evolving a corresponding understanding around them. (For example – where does the local end and exogenous begin and what are the relationships between them?); and (v) the way water is planned, used and managed causes externalities – both positive and negative, and many of them are unidirectional and asymmetric.

These characteristics have a bearing on water-related institutions⁴ and have the potential both, to trigger contention and conflict thus becoming an instrument of polarisation and exclusion, but also to become an instrument of equitable and sustainable prosperity for all those who depend directly or indirectly on water for their livelihoods.

There is also the issue of the relative paucity of frameworks, policies and mechanisms to deal with water resources. There is a relatively greater visibility as well as a greater body of experience in evolving policies, frameworks, legal set-ups and administrative mechanisms dealing with immobile natural resources, however contested the space may be. For example, many reformists as well as revolutionary movements are rooted in issues related to land. Several political and legal interventions addressing the issue of equity and societal justice have been attempted. Most countries have gone through land reforms of one type or another. Issues related to forests have also generated a body of comprehensive literature on forest resources and rights. Though conflicts over them have not necessarily been effectively or adequately resolved, they have received much more serious attention, have been studied in their own right and practical as well as theoretical means of dealing with them have been sought. In contrast, water conflicts have not received the same kind of attention. The 18 case studies presented here are part of a larger project, *Compendium on Water Conflicts in India* which is a modest attempt to capture different types of conflicts – in terms of scale and nature of conflict – with illustrative cases premised on the belief that understanding and documenting

Figure: Location Map of the 18 Case Studies – Water Conflicts in India



Case Studies: (1) Keoladeo Park, Bharatpur, Rajasthan. (2) Vadali village, Surendranagar, Gujarat. (3) Bogibeel Bridge over the Brahmaputra River, Assam. (4) Lower Bhavani Project on the Bhavani River, Tamil Nadu. (5) Palkhed LBC, Upper Godavari Project, Maharashtra. (6) Kolleru Wildlife Sanctuary, Andhra Pradesh. (7) Kannauj-Kanpur stretch of the Ganga River, Uttar Pradesh. (8) Khari River, Ahmedabad, Gujarat. (9) Papagani River, Karnataka and Andhra Pradesh. (10) Sardar Sarovar Project on the Narmada, Gujarat. (11) Haribad Minor Irrigation Project, Madhya Pradesh. (12) Polavaram Project on the Godavari River, Andhra Pradesh. (13) Shapin River, Jharkhand. (14) Lava ka Baas, Alwar, Rajasthan. (15) Gravity Dam, Paschim Midnapur, West Bengal. (16) The Sulej Yamuna Link Canal. (17) Balighar Hydroelectric Project, Doda, Jammu and Kashmir. (18) Sheonath River, Durg, Chhattisgarh.

them in all their complexity would contribute to informed public debate and facilitate their resolution.

II Background and Process

This introductory article and the 18 case studies (see the figure for the listing of the cases and their locations) that follow have their roots in a process initiated by the World Wide Fund for Nature (WWF) project, ‘Dialogue on Water, Food and Environment’.⁵

Discussions in civil society forums led to an awareness of the need to look at water conflicts and some information on a small number of relatively better known water conflicts in the south was collected and a summary of the cases was published as a small booklet.⁶ During a meeting in

Bangalore organised to discuss this booklet, participants described many more varied conflicts and it was felt that there is a need for paying more attention to water conflicts in India.⁷ It soon became clear that information on water conflicts was scattered, unorganised and many conflicts were documented inadequately or not at all.

It was decided that one of the first steps should be to bring out a compendium on water conflicts in India. A small group was formed to discuss the action plan and a core group as well as a steering group were set up to carry out and guide the activity.

Since the process was initiated by a group that had strengths in peninsular India, it was decided to concentrate mainly on peninsular India at this stage, and include only a few representative cases from the rest of India. The case studies are

not full-fledged research papers but a summarised account of the conflict, the issues involved and their current status. In most cases, the authors have taken care to capture the differing perceptions of the conflicting parties. Each case study was sent for review and the reviewers’ comments were treated as issues to be addressed and so long as they were adequately addressed, there was no attempt to modify the case study to bring it in line with reviewers’ opinions. The inputs from the Policy Dialogue on Water Conflicts in India – a two-day meeting held on March 21-22, 2005 with a participation of nearly 120 people drawn from politics, judiciary, activism, farming community, academia and media – have helped improve the compendium. We feel the process of preparing the compendium has been as important as the product itself.

The compendium and the cases presented here are not, and cannot be, a comprehensive account of water conflicts in India. It is more an attempt to illustrate the wide diversity of water conflicts in India. Some cases like the over 30-year old Cauvery dispute have not been included; firstly, because they are very well known and secondly, they would probably require separate volumes to do them justice. In spite of all limitations, it was felt that bringing out the compendium is an important first step, mainly because it gives us a glimpse into “the million revolts” that are brewing around water. We hope that it begins a process of serious reflection on water conflicts within an evolving comprehensive framework.

III Case Studies and Themes

After being reviewed by the experts, a total of 63 case studies were selected for the compendium. Many of these cases have been or are being fought in court. Even more involve agitations and grassroots action. Organising these studies for publication involved adopting a principle for grouping and presenting the case studies though some cases could fit into more than one theme. Since water conflicts are often a multi-faceted microcosm of wider conflicts and it is difficult to identify any one aspect as the dominant one, it was impossible to make the themes mutually exclusive. After much discussion, it was decided to organise the cases into the eight broad themes described briefly in following sections. In the compendium, invited thematic review pieces⁸ introduce the theme and to some extent the case studies covered under it.

Contending Water Uses

Water, as noted earlier, is a common pool resource and hence when the same unit is demanded for different kinds of uses, there is a contestation and a potential conflict. The 10 case studies included under this broad theme deal with conflicts related to contention between different kinds of uses. These range from a conflict over water for wetlands vs agriculture use to that over building a bridge and its impact on an island ecosystem.

Three salient points emerge from the case studies: (i) structures built to improve the ecosystem may have unintended effects that actually harm people and ecosystems; (ii) improving water resources through rainwater harvesting at micro level might improve water availability but could sharpen conflicts if equity is not addressed; and (iii) in the conflict between rural and urban uses, it is rural needs that are steadily losing out.

Equity, Access and Allocation

This broad theme focuses mainly on equity issues between different users but *within the same kind of use*, unlike the first theme that deals with *different* contending uses. The cases cover a wide variety of equity and access issues.

Conflicts Around Water Quality

Issues related to water quality, or pollution, are fast emerging in various parts of India. Earlier these issues were treated as inevitable consequences of growth and industrial development and therefore largely ignored. However, growing scale, increased awareness and active civil society engagement have brought water quality conflicts increasingly to the forefront. The main issue here is how and in what form do users return water to the ecosystem. Polluted water returned by users causes problems to “downstream users”, and decreased freshwater availability causes economic loss, social distress and ill health. Sadly, deterioration in quality becomes apparent only after adverse impact looms large enough, and in the last instance, ecosystems become the major losers.

A dozen cases, drawn from different part of the country, have been studied under this theme. Perhaps we need a three-pronged approach. First, a legal framework based on rapidly enforced criminal and civil penalties. Strict but non-implementable legal frameworks appear good only on paper. Second, environmental mediation,

a pragmatic direction to settle issues quickly and amicably. Third, encouraging voluntary compliance. The latter is a long way from becoming effective in India, since consumers/users in particular are still focused mainly on price than on quality, safety, etc.

To these we should add another concern, the ecosystem. Ecosystems have no voice, no votes, and some important ecosystem issues have never entered the agenda for water conflicts. For example, concepts of ecological flows, minimum ecosystem requirements and preservation of ecosystem services are not even being explored. Yet, our long-term futures will finally be decided by whether we tackle these issues, before we poison the wellsprings of life on this planet.

Sand Mining

The four cases under this theme bring out the complex nature of the conflicts around indiscriminate sand excavation from riverbeds. Apart from the ecological impact like impact on stream flows and sandy aquifers, deepening of riverbeds, subsurface intrusion of saline seawater in coastal areas and erosion of the banks to name a few, it also impacts on the livelihoods of the local people causing decreased availability of water for both domestic and irrigation purposes as the wells near the banks go dry. Sand is also a building material and local people also depend on it for house construction. In many states it is one of the major sources of revenue for the gram panchayats. It provides seasonal employment to the local labourers. The contractor-bureaucrat-politician nexus further complicates the situation and the conflicts very often take the form of conflict between this nexus and the local people.

Micro-Level Disputes

Ten case studies have been included in the compendium under this theme that comprises conflicts on a truly micro-scale – within a village, a community or around a small tank. The thousands of such micro-level conflicts that exist in India are varied, and contrary to expectation, often complex to understand, and involve a very wide range of issues. No compendium can ever aspire to do justice to them. This sample is only illustrative of a few such cases.

The cases show that local level water conflicts are increasing and spilling over into many other issues and though there are instances of successful resolution of conflicts, what stands out is the absence of mechanisms to mediate, to provide

platforms for dialogue and contestation between rights and stakeholders.

Dams and Displacement

Conflicts over dams and displacement have been relatively well publicised and better documented. There is lot of material already available in many instances and there are nine case studies in the compendium.

Transboundary Water Conflict

Conflicts between countries are generally classed as “transboundary” conflicts. However, in India, constituent states themselves are often very large and since water is a state subject, enjoy considerable autonomy in this respect. For this reason, both interstate and inter-country disputes have been included together in this theme.

Privatisation

Privatisation of water is an important new arena of conflict not only in India but also in many other countries in Asia, Latin America and Africa. The three cases included in the compendium under this theme bring out clearly what is in store if there is no vigilance exercised on the kind and extent of privatisation, or in respect of whether or not privatisation of rights and entitlements takes place under the garb of privatising services. The current debate about water privatisation is highly polarised between two well-entrenched positions of for and against and there seems to be very little attempt to explore the middle ground of seeing water as both a social and economic good. This has implications for issues like ownership, rights and allocations, pricing and cost recovery and regulatory framework.

IV Way Ahead: Salient Points

Water conflicts are symptoms of larger issues in water resources management. The compendium, a mainly pre-analytical effort, does not aim at a detailed analysis of water conflicts, their root causes and the ways ahead. However, implicit in these “million revolts” is a demand for change; first, in the ways we think about water and second, in the ways we manage it. And many isolated insights can already be gleaned from the material. In this concluding section we briefly enumerate some of these insights.

First of all, we need to get out of the thinking that sees water flowing out to the sea as water going waste. This thinking,

still prevalent in the country, led to a water management strategy centred on dams. It is also important to have a historical perspective and not demonise dams and earlier dam builders. There is not much point blaming dams and dam builders of yesterday from today's vantage point; it would be something like finding fault with the telephone department for not introducing cell phones in 1940s! While questioning the wisdom of selling the same technology approach that is valued in that era, we need to look ahead.

The lesson is that water is a resource embedded within ecosystems; we cannot treat it as a freely manipulable resource. For example, too many of our mega projects, whether big dams, or diversions or inter-linking schemes treat rivers as freely manipulable resources and do harm to the long-term viability and sustainability of the resource itself. Our wetlands and rivers are already in bad shape. It is time we took them into account on their own, and not simply as a resource to be mined. Otherwise we will end up spending more in managing conflicts than what we get from our projects!

We need to change our thinking in respect of the role of large systems and dams. We need to see local water resources as the mainstay of our water system and need to see large-scale irrigation as a stabilising and productivity enhancing *supplement* feeding into it. For this we need to deliver water in a dispersed manner to local systems, rather than in concentrated pockets, creating ecosystem islands dependent fully on exogenous water that can only be maintained at great economic and social cost.

Then there is the vexed question of who pays how much for water. We need to realise that so far it is the urban poor, the rural areas and the ecosystems who have paid a much higher cost, directly as well as indirectly for water than what the rich and the middle classes in the country enjoy, especially from public sources. More than anything, we have here a case of reverse subsidy. We need to see to it that full costs are recovered from the rich and the middle classes. They have the capacity to pay, as the super profits to bottled water manufacturers show. Without this it will not be possible for cities to maintain adequate quality for the water they return water to downstream ecosystems and communities.

Two of the most important issues that have emerged are those relating to rehabilitation and pollution. In respect of "rehabilitation with self respect" though some progress has been made in states like Maharashtra, there is an urgent need for a policy and enactment at the national level for the

rehabilitation of all project affected. In respect of pollution, as already discussed above, we need to move to a mix of civil and criminal penalties and introduce environmental mediation as an active method of addressing pollution issues.

What is also evident is the total ineffectivity of the so-called river basin organisations to do anything about water conflicts. What is sorely needed is a system of graded institutions that start from the micro-level, may be a village, and proceed upwards to a basin level board or authority. Water is a highly dispersed and local resource even while it is an interconnected resource. Centralised basin level authorities alone will never be able to take care of the complex problems that arise at all levels. It is also important that these micro-level institutions do not automatically follow the boundaries of a presumed community, since it is clear from many cases that intra-community divisions enter decisively into water conflicts.

Polarised Positions

The case studies clearly bring out that struggles and viewpoints around water issues in India are highly polarised. The richness and diversity of bio-physical, social, economic as well as political aspects within India create a tendency of fragmentation and polarisation rather than a synthesis, leading to long-drawn out wars of attrition in which the losers are invariably the vulnerable and weaker sections. It is important in this respect to look at multi-stakeholder platforms (MSPs) or similar processes that bring stakeholders together. The case studies also show that MSPs have resulted in better outcomes than polarised wars of attrition.⁹

However, there are a few aspects that need urgent attention if MSPs are to become meaningful and stable instruments of water governance. MSPs will firstly need to take into account and give proper attention to the heterogeneity of stakeholders, existing prior rights and context of MSP formation. But more importantly, they will also have to be informed by an innovative approach to water sector reform that will allow accommodation of different stakeholder interests, will need to be supported by access to reliable data, information and decision support systems and be based on an acceptable normative framework.


Such a framework, Rogers and Hall¹⁰ point out, needs to be "an inclusive framework (institutional and administrative) within which strangers or people with different interests can practically discuss

and agree to cooperate and coordinate their actions". This is all the more important in the water sector where opinions are sharply divided on crucial issues: for example, is water a social good and part of the human rights framework or an economic good like any other. There is a similarly sharp difference of opinion about source creation, about large vs small systems, equitable access and entitlements. The framework adopted will therefore be of critical importance.

The framework needs to be capable of creating space for a dialogue if an MSP is to be initiated. For example, a framework that inherently sees large and small as mutually exclusive and opposed alternatives leaves little scope for dialogue between the dam affected and the drought affected: large dam votaries would tend to either invoke the "greater common good" to ignore the suffering and displacement of already marginalised communities like the adivasis while opponents would invoke that very suffering to ignore the possibility of reliable water supply to severely drought affected areas. However, if the framework is based on the need to *integrate* the small and the large, several possibilities emerge – destructive centralised submergence behind the dam could be reduced by storing as much as possible of the water flows in the small systems in the command/service area instead of storing them behind the dam¹¹ – and open up space for a joint exploration by the two important stakeholders, the would-be project affected and the beneficiaries. The conventional framework governing water resource planning, source development, norms of access and service delivery, etc, in the water sector is also responsible for many types of conflicts amongst the direct stakeholders and a highly polarised discourse on water. The challenge is to evolve a consensual framework that will be inclusive enough even as it takes into account crucial concerns like equity and sustainability.

The beginning is likely to be modest. Recently Wang Shucheng, China's minister of water resources said in his key note speech to the international congress "by constructing a water saving society, China will upgrade its resources use efficiency, improve its eco-environment, enhance its capability for sustainable development and push the entire society towards a civil development path that features better production development, affluent life for the people and a sound ecology ... Our objective is to prevent aggregate agricultural water consumption from further increasing and ensure that water for grain security will be satisfied through

agricultural water saving and enhancement of water use efficiency".¹² We may not necessarily adopt this Chinese formulation, but it is an example of the kind of focus and precision that is needed.

In conclusion, we go back to Manmohan Singh's advice to the state governments to show "understanding and consideration, statesmanship and appreciation for other points of view". These are applicable to all the actors in the water sector – central government, state governments, courts, media, civil society, industry and farmers. Unless we come together and evolve a consensual framework in India, go beyond the polarised discourse, rivers will continue to divide us, emotionally and politically, leading to a million revolts, the efforts at physical interlinking notwithstanding. 

Email: b.gujja@wwfint.org

Notes

[Authors are editors of the forthcoming book *Water Conflicts: A Compendium of Indian Experience* (working title) to be published by Routledge in March-April 2006. This article is based on the 70 odd case studies and thematic review papers that are part of this book. Of these, 18 case studies are included in this special collection. Needless to say,

the opinions expressed in this introductory article are of the authors alone and not necessarily endorsed by the organisations they may represent and the contributors of the case studies and thematic reviews.]

- 1 Reproduced from Infochange Agenda issue on 'The Politics of Water', Issue 3, October 2005.
- 2 Headline story of *The Hindu*, December 2, 2005.
- 3 Andhra Pradesh state assembly was stalled for several days on this issue. Opposition and the electoral partner TRS joined the protest demanding that this government order (GO) diverting water from Krishna be withdrawn.
- 4 In fact, there is a considerable amount of literature available on some of these, especially about common pool resources, their defining characteristics and the "fit" between these characteristics and the institutions to manage them. Lele Sharachandra (2004), 'Beyond State-Community and Bogus "joint"ness: Crafting Institutional Solutions for Resource Management' in Max Spoor (ed), *Globalisation, Poverty and Conflict: A Critical 'Development' Reader*, Kluwer Academic Publishers, Dordrecht and Boston, pp 283-303, summarises some of these discussions and debates.
- 5 'Dialogue on Water, Food and Environment' was set up by 10 international organisations. More information on the project is available on www.iwmi.org/dialogue. The present effort of preparing a Compendium on Water Conflicts has been funded by WWF.
- 6 R Doraiswamy and Biksham Gujja (2004), 'Understanding Water Conflicts: Case Studies from South India', *Dialogue on Water, Food and Environment*, WWF-International, ICRISAT, Patancheru, AP and Pragathi, Bangalore.

- 7 The meeting in Bangalore and the subsequent interactions led to the formation of the 'Forum for Policy Dialogue on Water Conflicts in India'. The Forum presently consists of Centre for World Solidarity (CWS), Hyderabad; Chalakudi River Samrakshana Samithi, Trichur; IWMI-Tata Water Policy Programme, Anand; Pragathi, Bangalore, Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune; VIKSAT, Ahmedabad; WWF International, Hyderabad and World Water Institute (WWI), Pune and also a few independent researchers. Apart from preparing this compendium, the Forum also organised a media campaign in five states and also organised a two-day conference on water conflicts on March 21-22, 2005.
- 8 Thematic Review Authors Include Ramaswamy Iyer, Sunita Narain, Paul Appasamy, K V Raju, P B Sahasranaman, Bharat Patankar, Anant Phadke, Biksham Gujja, Suhas Paranjape and K J Joy.
- 9 The cases of Palar and Noyal Basins in Tamil Nadu, the case of Khari River in Gujarat and cases like the Uchangi Dam and Tembu lift irrigation scheme in Maharashtra all point to this.
- 10 Rogers, Peter and Alan W Hall, 2003, 'Effective Water Governance', Global Water Partnership Technical Committee (TEC), TEC Background Papers, No 7.
- 11 For details see the 'Case Study Alternative Restructuring of the Sardar Sarovar Project: Breaking the Deadlock' by Suhas Paranjape and K J Joy and their book *Sustainable Technology: Making the Sardar Sarovar Project Viable*, Centre for Environment Education, Ahmedabad, 1995.
- 12 Speech of Wang Shucheng at the Opening Ceremony of the 19th ICID congress on September 15, 2005.