



*Call for papers*

# Competition and Conflict around Groundwater Resources in India

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Forum for Policy Dialogue on Water Conflicts in India (Forum)

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Advanced Center for Water Resources Development and Management  
(ACWADAM)

## Context

India is the largest user of groundwater in the world today. With increasing pressures on domestic, agricultural and industrial fronts the already overstressed system of groundwater resources is coming under severe fatigue. However, stressed groundwater resources are not just about depleting and contaminated aquifers but also about a common pool resource coming under competition, leading to conflict between its multitude of users.

Competition for groundwater is observed not only between agriculture, domestic, industrial and ecosystem uses but also between the users within each of these sectors. One of the most distinguishing features between surface water conflicts and groundwater conflicts is the ignorance of groundwater resource boundaries and stocks in the arenas of competition and conflict. This ignorance makes groundwater a blind spot among many of its users, leading to a wide-ranging arena of competition that consequently leads to conflict. While surface water conflict often results from over-allocation of relatively known quantity of water and its misappropriation by individuals, groups or certain sectors, groundwater competition (leading to conflict) is a result of a race between the supply and demand wherein the stocks (availability and quality) are seldom gauged. As a consequence, one level of competition leads to another and so on.

The wide diversity of aquifer conditions present in India further complicates the arena of groundwater competition and conflicts. Even a broad typology of aquifer conditions reveals a range of drivers and impacts from competition and conflict across this wide-ranging typology. An increasingly larger number of users today have access to resources that enable digging wells, installing pumps, digging deeper into springs and tapping a depleted source. The ability to access such instruments of developing groundwater resources can quickly turn into instruments of competing for groundwater, thereby resulting in inequality of access. While the overall long-term impact may be groundwater overuse to which a large section of users are party, fundamental access to water in groundwater dependent situations in such instances leads to increased inequity amongst users. As groundwater storages dry up as a consequence of aquifer-level depletion, users with multiple and/or deeper sources are better able to access the limited remaining stocks, leading to a condition of inequitable access and injustice, usually in case of the resource-poor.

A prolonged phase of groundwater competition usually precedes the phase of direct groundwater conflict. Understanding the nature of the aquifer, along with the social, economic and ecological conditions under which groundwater resources are used from

the aquifer, is important for understanding how competition unfolds as water conflicts emerge and how such conflict affects aspects of water equity and justice.

The tension between the hydrogeological boundaries (aquifers) and the political-administrative boundaries (e.g. of villages, taluka or blocks, districts, states) is evident across the entire aquifer typology although manifestations are quite different. A common observation is that competition turns into conflict when an aquifer that is being used to supply water for a certain purpose suddenly begins to also cater to demands for a different purpose. For instance, the competitive arena for the use of groundwater for irrigation may suddenly turn into a conflict when competitors (irrigation) rally against a new user (industry). Usually there is a phase of competition, as both groups of users attempt to access as much water as possible in a common resource, the aquifer. These conditions shape the nature of competition between users and uses and how such competition unfolds in different ways over spatial and temporal scales.

## Call for Papers

ACWADAM and the Forum for Policy Dialogue on Water Conflicts in India (Forum) invite abstracts for an edited volume on 'Groundwater Competition and Conflicts in India'. Groundwater competition and conflicts very often remain hidden and poorly understood. And the aim of this publication is to bring such competition and conflict into mainstream water debates so as to stimulate appropriate responses. Responses can only be designed when the characteristics of groundwater competition and conflict are sufficiently researched, discussed and debated as part of the larger groundwater management and governance effort in India. Such a discussion ought to increasingly include aspects of social fairness and justice along with the typical buzzwords of efficiency, equity and sustainability of groundwater resources. We also hope that this effort would make the discourse around groundwater in general, and conflicts in particular, more informed – a first step towards their resolution.

## Questions of enquiry and structure

We invite case studies covering narratives, analyses and syntheses of groundwater competition and conflict from any part of India. The case studies, on the minimum should cover the following:

### 1) Description of the competition or conflict area

The case study must begin with a brief description of the area, location and the geographic and political boundaries of the area in question. If the competition or conflict is local, please provide details of the region, its significant geographical and geo-hydrological features, demographic and livelihood profile, status of water resources in general and groundwater in particular etc. The idea is to give the reader a clear mental picture of the problem and all the factors that influence it. Also please specify the size of the area involved in the conflict and where possible, the number of people affected.

### 2) Map

All case studies must be accompanied by a map that points to the state(s) and a detailed map of the area in question.

### 3) The competition or conflict

Describe the competition or conflict in very simple, direct terms. Assume that your reader knows nothing about it. Do not exaggerate, do not use an excess of adjectives, and do not take a stand on the issue: state the facts as clearly as possible and let your

readers draw the sequence of events from there. Include a box with a brief chronology of events.

#### 4) Current Status

Outline how the competition or conflict is poised today. Is the issue active or dormant? Is the matter pending in a court or tribunal? Is some action forthcoming from the state or local government? Has the civil society or anybody tried to resolve the conflict, etc.

#### 5) The opposing stands

List the opposing stands of various parties involved and briefly summarise:

- What do they want?
- What is their reasoning?
- What have they done?

Also describe the impact of these opposing stands and ensuing competition or conflict on the ecology, economy and society in the affected areas.

#### 6) Author/s' take and analysis

From the above the author/s can make a good analysis of the case where the author/s' viewpoints/take about the case can come out clearly. In the analysis the author/s need to address some or all of the following;

- What is the nature of the competition and or conflict? What drives the competition? When and how does groundwater competition lead to a conflict?
- How does a particular typology of groundwater resources aid in or reduce the competition? Does competition result due to natural inequities in groundwater systems? Do anthropogenic activities increase the effect of groundwater competition in aquifers which would normally have masked the impact of exploitation?
- Are there different forms of groundwater competition embedded in the case? If yes, what are they?
- Does competition affect groundwater quality further entrenching the effects of contaminants? What does the case study say?
- Does policy and legislation around water in general and groundwater in particular have any bearing on this case?
- How does groundwater competition (and conflict) affect ecosystems, especially base flows according to your case study? Does such an impact imply implicit conflict between groundwater for livelihood and ecosystem needs? Are there any important trade-offs in this competition?

#### 7) Way forward

Author could give some suggestions with regard to engaging with and/or resolving this conflict. Are there possibilities for resolving the conflict? What steps and processes must be adopted? Can existing policy, legal and institutional framework play a role? If not, then what could be the changes required in policy, legal and institutional frameworks?

### The Process and Timeline

We invite prospective authors to submit an abstract, along with a short CV to **Siddharth Patil** by June 20<sup>th</sup> July, 2016 (Email: [acwadam@gmail.com](mailto:acwadam@gmail.com)). The abstract, of the range of 500-800 words, should provide some details of the case (like where it is located and what is the nature of the conflict, etc.) and also justify its suitability to address, fully or

partially, the above issues. A three-member committee would review the abstracts and decide on the final set of abstracts for full papers. Authors will be notified of the result of the abstract selection by 1st August. The submission of the first draft of the full-length paper, which should be of about 6000 words, is due by the end of September 2016. The draft case studies would be put through a peer review process and the authors are required to engage with the peer review comments and the comments for the editors while finalising the case study. The submission of the final version will be due in October 2016.

## Output

The Forum and ACWADAM would bring this out as an edited volume as an internal publication. However, efforts would also be made to bring this out as a book by a well-known publisher as there is no book that deals with this issue in the Indian context.

## About Forum

The Forum for Policy Dialogue on Water Conflicts in India (Forum) was formed in 2004 and over the years has grown as a large network of individuals and organisations – primarily civil society and academic – and presently it has more than 250 members. It is housed in Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune. Documentation, training, action research, engagement with current issues, policy dialogues, etc., are the important components of Forum’s work. It has brought out many publications in the form of technical reports, policy briefs, articles, books, etc. One of the major contributions has been the book, *Water Conflicts in India: A Million revolts in the Making*, published by Routledge in 2008. Presently, Forum is involved in the Mahanadi basin in a substantial manner looking at themes like agricultural-industrial water allocations and use, environmental flows and groundwater. The groundwater theme is anchored by ACWADAM. For further details of Forum’s work log on to [www.waterconflictforum.org](http://www.waterconflictforum.org)

## About ACWADAM

Advanced Center for Water Resources Development and Management (ACWADAM) was founded in 1998 to focus on understanding aquifers and demystifying this understanding. ACWADAM has worked across the entire Indian landscape through various partnerships and collaborations on groundwater issues spanning the Himalayan region, through the alluvial flood plains and into the hard-rock regions of eastern, central and peninsular India. ACWADAM’s goal is to establish a groundwater management agenda in India, an agenda based on the science of hydrogeology and the principles of managing a “common pool resource” through scientifically based participatory processes. ACWADAM’s mission is to stimulate and facilitate work related to groundwater management in various parts of India, through partnerships. For further details about ACWADAM’s work, log on to [www.acwadam.org](http://www.acwadam.org)

Your sincerely,

Himanshu Kulkarni, Siddharth Patil and K. J. Joy  
(ACWADAM and Forum)